The official seal of Kingsborough Community College contains three major elements which indicate the character and purpose of the College and the nature and tradition of the community in which it is located. The central figure of a lighthouse has a dual significance: it represents the College’s aim to light the student’s way to further pursuit of higher education or to a productive career in business, government, or community service; it also depicts the location of the permanent campus at Manhattan Beach—a peninsula surrounded by the waters of Sheepshead Bay, Jamaica Bay, and the Atlantic Ocean, and part of one of the great seaports of the world. The five stars within the rays of the beacon represent the five boroughs of the City of New York. And the legend below the lighthouse expresses the College’s mission—to provide opportunity to the student to develop his full potential and thus achieve fulfillment as an individual and as a useful citizen of the community. 1963 is the year in which Kingsborough was founded, 1847 the year in which the first unit of what is now the City University of New York was founded.
Kingsborough Community College is a unit of the City University of New York, administered by the Board of Higher Education under the program of the State University of New York, and accredited by the Middle States Association of Colleges and Secondary Schools.

It is a two-year college offering a Liberal Arts and Science program leading to the degree of Associate in Arts (A.A.); programs in Biology, Chemistry, Computer Science, Mathematics, and Physics, leading to the degree of Associate in Science (A.S.); and programs in Accounting, Banking, Business Administration, Data Processing, Industrial and Labor Relations, Insurance, Nursing, Real Estate, Retail Business Management, and Secretarial Science, leading to the Associate in Applied Science (A.A.S.) degree.

The College also administers a City University College Center, where the first year of a Liberal Arts curriculum preparing students for transfer to a senior college is offered.

The College provides, additionally, three Summer Sessions, two day and one evening, and, during the regular academic year, a program of Evening Studies and Continuing Education which includes both credit courses and non-credit cultural and general information courses.
Kingsborough Community College
OF THE
CITY UNIVERSITY OF NEW YORK

CATALOG 1966-1968

KCC at Manhattan Beach
Oriental Boulevard
Brooklyn, N. Y. 11235

KCC in Mid-Brooklyn
317 Clermont Avenue
Brooklyn, N. Y. 11205

City University College Center
60 West End Avenue
Brooklyn, N. Y. 11235
For information write or call the following officers of the College:

Admissions — Mrs. Sarah Hoagland, Acting Registrar
Business Programs (other than Secretarial) — Dr. Holman W. Jenkins, Chairman, Division of Behavioral and Social Sciences
Director of Athletics — Dr. Ralph Edwards, Chairman, Division of Health Science, Health and Physical Education
Evening Studies — Dr. M. Fred Tidwell, Director, Evening Studies and Continuing Education
Financial Aid — Dr. Elliott S. Palais, Coordinator of Financial Aids
Nursing Program — Dr. Sophia Yaczola, Administrator of the Nursing Program
Registration — Mrs. Sarah Hoagland, Acting Registrar
Science Programs, including Computer Science — Dr. Irving A. Dodes, Chairman, Division of Mathematics and Science
Secretarial Science Programs — Dr. Eunice L. Miller, Administrator of the Programs in Secretarial Science
Student Life — Dr. Irene R. Kiernan, Dean of Students
Summer Sessions — Dr. Richard M. Graf, Director of the Summer Sessions
Mid-Brooklyn Location — Dr. Seymour P. Lachman, Director of Kingsborough in Mid-Brooklyn
City University College Center — Dr. Morton Thompson, Coordinator
General Information — Mr. Samuel I. Rovner, Coordinator of Publications and Public Information

Mailing Address: Kingsborough Community College
Manhattan Beach, Brooklyn, N. Y. 11235

Telephone: Manhattan Beach: (212) 769-9200
Mid-Brooklyn: (212) ST 3-7605
City University College Center: (212) 769-4000
## Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Calendar 1966-68</td>
<td>6</td>
</tr>
<tr>
<td>Calendar of the Admissions Program</td>
<td>9</td>
</tr>
<tr>
<td>The Board of Higher Education</td>
<td>10</td>
</tr>
<tr>
<td>The City University of New York</td>
<td>12</td>
</tr>
<tr>
<td>The State University of New York</td>
<td>15</td>
</tr>
<tr>
<td>Officers of Administration of the College</td>
<td>16</td>
</tr>
<tr>
<td>Officers of Instruction</td>
<td>18</td>
</tr>
<tr>
<td>Supporting Staff</td>
<td>28</td>
</tr>
<tr>
<td><strong>General Information</strong></td>
<td></td>
</tr>
<tr>
<td>History of Kingsborough Community College</td>
<td>31</td>
</tr>
<tr>
<td>Accreditation</td>
<td>32</td>
</tr>
<tr>
<td>Aims and Objectives</td>
<td>33</td>
</tr>
<tr>
<td>Campus Facilities</td>
<td>35</td>
</tr>
<tr>
<td>The College Libraries</td>
<td>36</td>
</tr>
<tr>
<td>Evening Studies</td>
<td>37</td>
</tr>
<tr>
<td>The Summer Sessions</td>
<td>38</td>
</tr>
<tr>
<td>Programs for the Disadvantaged</td>
<td>39</td>
</tr>
<tr>
<td>Student Life</td>
<td>41</td>
</tr>
<tr>
<td>Fees</td>
<td>44</td>
</tr>
<tr>
<td>Financial Aids</td>
<td>46</td>
</tr>
<tr>
<td>Admission</td>
<td>48</td>
</tr>
<tr>
<td>Scholarship Requirements</td>
<td>56</td>
</tr>
<tr>
<td>Academic Organization</td>
<td>58</td>
</tr>
<tr>
<td>Degree Programs</td>
<td>59</td>
</tr>
<tr>
<td>Courses of Study</td>
<td>60</td>
</tr>
<tr>
<td>Requirements for Graduation</td>
<td>62</td>
</tr>
<tr>
<td>Curricula</td>
<td>65</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td>81</td>
</tr>
<tr>
<td>How to Reach College Locations</td>
<td>112</td>
</tr>
</tbody>
</table>
Academic Calendar, 1966-68

FALL SEMESTER, 1966

Sept. 6-8 .......... Tuesday-Thursday .......... Guidance testing
Sept. 9, 12-14 .... Friday-Wednesday .......... Freshman orientation
Sept. 19-21 ...... Monday-Wednesday .......... Registration
Sept. 22 .......... Thursday .......... Classes begin
Oct. 12 .......... Wednesday .......... Columbus Day: no classes
Nov. 8 .......... Tuesday .......... Election Day: no classes
Nov. 9-16 .... Wednesday-Wednesday .......... Mid-term examination
Nov. 11 .......... Friday .......... Veterans Day: no classes
Nov. 24, 25 ...... Thursday, Friday .......... Thanksgiving Recess
Dec. 22 .......... Thursday .......... Classes follow Friday schedule
Dec. 23-
Jan. 3 .......... Tuesday .......... Classes resume
Jan. 13 .......... Friday .......... Last day of classes
Jan. 16-20 ...... Monday-Friday .......... Final examinations

SPRING SEMESTER, 1967

Feb. 1-3 .......... Wednesday-Friday .......... Registration
Feb. 6 .......... Monday .......... Classes begin
Feb. 13 .......... Monday .......... Lincoln's Birthday: no classes
Feb. 22 .......... Wednesday .......... Washington's Birthday: no classes
Mar. 15-21 ...... Wednesday-Tuesday .......... Mid-term examinations
Mar. 23-27 ...... Thursday-Monday .......... Spring Recess I
Mar. 28 .......... Tuesday .......... Classes resume
Apr. 24-26 ...... Monday-Wednesday .......... Spring Recess II
Apr. 27 .......... Thursday .......... Classes resume
May 9 .......... Tuesday .......... Faculty Day: no classes
May 29 .......... Monday .......... Last day of classes
May 30 .......... Tuesday .......... Memorial Day: holiday
May 31-June 7 ...... Wednesday-Wednesday .......... Final examinations
June 12 .......... Monday .......... Commencement

SUMMER DAY SESSION I, 1967

June 8, 9 .......... Thursday, Friday .......... Registration
June 13 .......... Tuesday .......... Classes begin
June 13 .......... Tuesday .......... Late registration
July 4 .......... Tuesday .......... No classes
July 5, 6 .......... Wednesday, Thursday .......... Mid-term examinations
July 7 .......... Friday .......... Classes scheduled
July 20 .......... Thursday .......... Last day of classes
July 24, 25 ...... Monday, Tuesday .......... Final examinations
SUMMER EVENING SESSION, 1967

July 6, 7 ........ Thursday, Friday ........ Registration
July 10 ........ Monday ........ Classes begin
July 10 ........ Monday ........ Late registration
Aug. 7, 8 ........ Monday, Tuesday ........ Mid-term examinations
Aug. 30 ........ Wednesday ........ Last day of classes
Aug. 31, Sept. 1 ...... Thursday, Friday ...... Final examinations

SUMMER DAY SESSION II, 1967

July 27, 28 .... Thursday, Friday ...... Registration
July 31 ........ Monday ........ Classes begin
July 31 ........ Monday ........ Late registration
Aug. 11 ........ Friday ........ Classes scheduled
Aug. 21, 22 .... Monday, Tuesday ........ Mid-term examinations
Sept. 4 ........ Monday ........ Labor Day: no classes
Sept. 5 ........ Tuesday ........ Last day of classes
Sept. 6, 7 .... Wednesday, Thursday .... Final examinations

FALL SEMESTER, 1967

Sept. 8 ........ Friday ........ Student Personnel staff meeting
on testing and orientation
Sept. 11 ........ Monday ........ Guidance testing
Sept. 12 ........ Tuesday ........ Faculty Adviser orientation with
Student Personnel Office
Sept. 13 ........ Wednesday ........ A.M., Freshman Convocation;
P.M., Student Personnel Services with freshmen
Sept. 14 ........ Thursday ........ A.M., Faculty Adviser freshman
orientation; P.M., Student Activities freshman orientation
Sept. 18-20 .... Monday-Wednesday .... Registration
Sept. 21 ........ Thursday ........ Classes begin
Oct. 5, 6 ........ Thursday, Friday .... No classes
Oct. 12 .......... Thursday ........ Columbus Day: no classes
Nov. 6, 8-13 .... Monday, Wednesday ... Mid-term examinations
Nov. 7 ........ Tuesday ........ Election Day: no classes
Nov. 22 ........ Wednesday ........ Classes follow Thursday schedule
Nov. 23, 24 .... Thursday, Friday .... Thanksgiving Recess
Dec. 25-
Jan. 1, 1968 .... Monday-Monday ...... Winter Recess
Jan. 2 ........ Tuesday ........ Classes resume
Jan. 12 ........ Friday ........ Last day of classes
Jan. 15-19 .... Monday-Friday ...... Final examinations
SPRING SEMESTER, 1968

Jan. 31, Feb. 1, 2  Wednesday-Friday  .... Registration
Feb. 5  Monday  Classes begin
Feb. 12  Monday  Lincoln's Birthday: no classes
Feb. 22  Thursday  Washington's Birthday: no classes
Mar. 18-22  Monday-Friday  Mid-term examinations
Apr. 12-21  Friday-Sunday  Spring Recess
Apr. 22  Monday  Classes resume
May 7  Tuesday  Faculty Day: no classes
May 22  Wednesday  Classes follow Friday schedule
May 23  Thursday  Last day of classes
May 24-29, 31  Friday-Wednesday, Friday  Final examinations
May 30  Thursday  Memorial Day: holiday
June 4-9  Tuesday-Sunday  Commencement Week

SUMMER DAY SESSION I, 1968

June 10, 11  Monday, Tuesday  Registration
June 12  Wednesday  Classes begin
June 12  Wednesday  Late registration
July 3, 5  Wednesday, Friday  Mid-term examinations
July 4  Thursday  Independence Day: no classes
July 12  Friday  Classes scheduled
July 18  Thursday  Last day of classes
July 22, 23  Monday, Tuesday  Final examinations

SUMMER EVENING SESSION, 1968

July 2, 3  Tuesday, Wednesday  Registration
July 8  Monday  Classes begin
July 8  Monday  Late registration
Aug. 5, 6  Monday, Tuesday  Mid-term examinations
Aug. 28  Wednesday  Last day of classes
Aug. 29, 30  Thursday, Friday  Final examinations

SUMMER DAY SESSION II, 1968

July 25, 26  Thursday, Friday  Registration
July 29  Monday  Classes begin
July 29  Monday  Late registration
Aug. 19, 20  Monday, Tuesday  Mid-term examinations
Aug. 30  Friday  Classes scheduled
Sept. 2  Monday  Labor Day: no classes
Sept. 3  Tuesday  Last day of classes
Sept. 4, 5  Wednesday, Thursday  Final examinations
Calendar of the Admissions Program

FOR ADMISSION IN THE SPRING OF 1967
October 15, 1966 — Last day for filing complete credentials of students in attendance in high school and students no longer in high school (including applicants who have attended other colleges) who are seeking admission to degree programs.

FOR ADMISSION IN THE SUMMER OF 1967
May 11, 1967 — Last day for filing applications to register on permits from other colleges of the City University.

FOR ADMISSION IN THE FALL OF 1967
January 15, 1967 — Last day for filing complete credentials of students in attendance in high school and students no longer in high school (including applicants who have attended other colleges) who are seeking admission to degree programs.

FOR ADMISSION IN THE SPRING OF 1968
October 15, 1967 — Last day for filing complete credentials of students in attendance in high school and students no longer in high school (including applicants who have attended other colleges) who are seeking admission to degree programs.

FOR ADMISSION IN THE SUMMER OF 1968
May 10, 1968 — Last day for filing applications to register on permits from other colleges of the City University.

FOR ADMISSION IN THE FALL OF 1968
January 15, 1968 — Last day for filing complete credentials of students in attendance in high school and students no longer in high school (including applicants who have attended other colleges) who are seeking admission to degree programs.
Board of Higher Education
of the
City of New York
(as of November 1, 1966)

Porter R. Chandler, Chairman

Term Expires

David I. Ashe, B.S.S., LL.B. ........................................... 1972
Renato J. Azzari, M.D., F.A.C.S. .................................. 1970
Lloyd H. Bailie, B.A., M.A., Ph.D. ................................. 1967
George D. Brown, A.B., M.S. ........................................ 1967
Frederick H. Burkhardt, A.B., Ph.D., B.Litt. ...................... 1975
John E. Conboy, M.D. .................................................. 1969
Mary S. Ingraham, A.B., L.H.D. .................................. 1973
Benjamin F. McLaurin .................................................. 1974
Jack I. Poses, B.C.S. ................................................... 1974
Luis Quero-Chiesa ...................................................... 1975
Arthur Rosencrans, D. H. ............................................. 1967
Henry E. Schultz, LL.B., D.H. ...................................... 1971
Ruth S. Shoup, A.B. ..................................................... 1971
Ella S. Streator, A.B. .................................................. 1970
David Sullivan ........................................................... 1968
Arleigh B. Williamson, B.A., M.A. .................................. 1972
Lloyd K. Garrison, A.B., LL.B., LL.D., President of the Board
of Education of the City of New York (ex-officio)

Pearl Max, A.B., Administrator
Irene Friedman, B.S., Assistant to the Chairman
Arthur H. Kahn, B.S.S., LL.B., Counsel
Arthur A. Schiller, B.Arch., M.Arch., F.A.I.A.,
Director of Architectural and Engineering Unit
Maude W. Stewart, A.B., M.A., Director of Information Service

KINGSBOROUGH COMMUNITY COLLEGE COMMITTEE
OF THE
BOARD OF HIGHER EDUCATION

Honorable Gladys M. Dorman, Chairman
Honorable Arleigh B. Williamson, Vice Chairman

Honorable Mary S. Ingraham
Honorable Edward D. Re
Honorable Arthur Rosencrans
Honorable Porter R. Chandler (ex-officio)
Administrative Council
of the
City University of New York
(as of November 1, 1966)

Albert H. Bowker, B.S., Ph.D., Chairman
Chancellor, The City University

Buell G. Gallagher, B.D., D.D., Ph.D.,
LL.D., Litt.D., L.H.D.
President, The City College

Mary L. Gambrell, A.B., A.M.,
Ph.D., Litt.D., L.H.D.
Acting President, Hunter College

Francis P. Kilcoyne, B.A., M.A.,
Ph.D.
Acting President, Brooklyn College

Joseph P. McMurray, B.A., LL.D., Litt.D.,
President, Queens College
L.H.D.

Leonard E. Reisman, B.S.S., LL.B.
President, College of Police Science

Herbert Schueler, B.A., M.S., Ph.D.
President, Richmond College

Walter L. Willig, B.S.C.E.,
President, Staten Island Community College
M.C.E., P.E.

James Allen Colston, B.A., M.A.,
Ph.D., LL.D.
President, Bronx Community College

Dumont F. Kenny, B.S., Ph.D.
President, Queensborough Community
College

Jacob I. Hartstein, B.A., M.S.,
M.A., Ph.D., L.H.D.
President, Kingsborough Community
College

Murray H. Block, B.B.A., M.A.,
Ed.D.
President, Borough of Manhattan
Community College

Milton G. Bassin, B.M.E.,
M.M.E., P.E.
President, New York City Community
College of Applied Arts and Sciences

Harry L. Levy, B.A., M.A., Ph.D.
Administrative Vice-Chancellor
of The City University

Seymour C. Hyman, B.Ch.E., M.S., P.E., Ph.D.
Vice-Chancellor for
Campus Planning and Development

UNIVERSITY DEANS

Elbert K. Fretwell, Jr., A.B.,
A.M., Ph.D.
Dean for Academic Development

Bernard Mintz, B.S., M.A.
Dean of Business Affairs

Mina Rees, A.B., A.M., Ph.D., Sc.D.
Dean of Graduate Studies

Harold H. Abelson, B.S., A.M., Ph.D.
Acting Dean of Teacher Education
The City University of New York dates from 1847 when the first of the municipal colleges was established by a referendum to the people of New York City. By a majority of six to one they voted for the Free Academy, later to be known as the College of the City of New York and since 1926 as The City College. For 100 years the City of New York was the sole support of this college and of the three other municipal colleges opened during the first century. The unique tradition of free tuition to undergraduates was established from the beginning.

In 1961, the municipal system of colleges, by that year numbering seven, was given university status and legally titled The City University of New York. This action was authorized by the Board of Higher Education of the City of New York, and the Legislature and the Governor of the State of New York. As the establishment of the first college met the necessity of young people then for higher education, so the City University meets the present need for advanced training to be made available to greater numbers.

Following the founding of City College in 1847, Hunter College (then called Normal College) was opened in 1870. In 1930, Brooklyn College was established, and in 1937 Queens College was opened. A senior College of Police Science was opened in September, 1965. In 1965, Richmond College as an upper division college was established by the Board, to open in September, 1967.

Since 1955, five community colleges have been established in New York City by the Board of Higher Education under the plan of the State University: Staten Island Community College in 1955, Bronx Community College in 1957, Queensborough Community College in 1958, Kingsborough Community College in 1963, Borough of Manhattan Community College in 1963. The latter two opened in September, 1964. In April, 1964, New York City Community College of Applied Arts and Sciences, established in 1946, came under the jurisdiction of the Board of Higher Education. Each of the six community colleges offers two-year programs in the technologies and in liberal arts.

The City University is financed by the City of New York, the State of New York, fees and gifts. Some funds for research and special projects are provided by the Federal government. Total expenditures, including capital costs, in 1965-66 were estimated to be about $120,400,000. Of that amount, educational and general expenditures for operating purposes were estimated to total about $91,800,000. Free tuition is provided
for baccalaureate students in the senior colleges and associate degree students in the community colleges who are qualified residents of the City, and for teacher education students through the fifth year who are residents of the State. Tuition fees are paid by all other students.

Since 1962, the City and the State have provided budget support to initiate and carry forward doctoral programs in the City University. As of September 1, 1965, 14 such programs are offered in Biology, Business, Chemistry, Economics, Engineering, English and Comparative Literature, History, Mathematics, Physics, Political Science, Portuguese Language and Luso-Brazilian Literature, Psychology, Sociology, and Speech. Further doctoral degree programs and additional master's degree programs as required will be offered by the City University as the support obtained permits and the need is demonstrated.
Board of Trustees
of the
State University of New York
(as of November 1, 1966)

Clifton W. Phalen, B.S., LL.D., L.H.D., Chairman...... New York City
James J. Warren, L.H.D., Vice Chairman ............... Albany
Warren W. Clute, Jr. .................................. Watkins Glen
Joseph E. Davis, L.H.D. ................................ White Plains
Charles R. Diebold, LL.B. .............................. Buffalo
Manly Fleischmann, A.B., LL.B. ....................... Buffalo
Samuel Hausman ....................................... New York City
George L. Hinman, A.B., LL.B., L.H.D., LL.D. .. Binghamton
Morris Iushewitz ..................................... New York City
Mrs. Maurice T. Moore, B.A., LL.D., L.H.D. ...... New York City
Mrs. Bronson A. Quackenbush, A.B. ................. Herkimer
John A. Roosevelt, A.B. ................................ Hyde Park
Oren Root, A.B., LL.B., LL.D. .......................... New York City
Roger J. Sinnott, B.S. ................................ Utica
Don J. Wickham, B.S. .................................. Hector

Secretary of the University Martha J. Downey, B.S., M.A.

CENTRAL ADMINISTRATION

Samuel B. Gould, A.B., M.A., LL.D. .................. President
Harold C. Syrett, A.B., M.A., Ph.D. ................. Vice President of the University
J. Lawrence Murray Executive Vice President for Administration
Harry W. Porter, A.B., M.S., Ph.D. .................. Provost
Sebastian V. Martorana, B.S., M.A., Ph.D. ........ University Dean for Two-Year Colleges
Kenneth T. Doran, B.S., M.S.(Ed.), Ed.D. ........ Associate University Dean for Two-Year Colleges
John T. Henderson, A.A.S., B.S.M.E., M.S.I.E. Assistant University Deans for Two-Year Colleges
John A. Mears, B.S., M.A., M.S., Ed.D. 
Ellis M. Rowlands, B.Arch., M.Arch. Director of Community College Facilities Planning
State University of New York

The State University of New York, established by the State Legislature in 1948, comprises 65 colleges and centers. At present, 57 conduct classes: four University Centers, two Medical Centers, 10 Colleges of Arts and Science, seven Specialized Colleges, six two-year Agricultural and Technical Colleges and 28 locally-sponsored, two-year Community Colleges.

Three additional Colleges of Arts and Science are in varying stages of development. Two four-year campuses, in Nassau and Westchester Counties, are now in early planning. The third campus, as proposed in an amendment to the University's 1964 Master Plan, would be upper-divisional (junior-senior years) in concept and located in the Utica-Rome-Herkimer Area. Master's level programs will be offered at all three campuses.

The Trustees also have approved establishment of five additional Community Colleges. Two, in Genesee and Herkimer Counties, are in early stages of organization. Three others, in Clinton, Essex-Franklin, and Ontario Counties, are subject to approval of another Master Plan amendment.

State University further comprises the Ranger School, a division of the College of Forestry which offers a 43-week technical forestry program at Wanakena, and the Center for International Studies and World Affairs located at Oyster Bay.

The University offers four-year programs in many fields, including Agriculture, Business Administration, Ceramics, Dentistry, Engineering, Forestry, Home Economics, Industrial and Labor Relations, Law, Liberal Arts and Sciences, Maritime Service, Medicine, Nursing, Pharmacy, Professional Museum Work, Public Administration, Social Work, Teacher Education, and Veterinary Medicine.

Its two-year programs include Nursing and Liberal Arts transfer programs and a wide variety of technical courses in such areas as Agriculture, Business, and the Industrial and Medical technologies.

Graduate study at the doctoral level is offered by the University at 12 of its campuses, and graduate work at the master's level at 24 campuses. The University is continuing to broaden and expand overall opportunities for advanced degree study.

Governed by a Board of Trustees appointed by the Governor, State University of New York comprises all State-supported institutions of higher education, with the exception of the senior colleges of the City University of New York. Each college and center of State University is locally administered. Although separated geographically, all are united in the purpose to improve and extend opportunities for youth to continue their education beyond high school.

The State University motto is: "Let Each Become All He Is Capable of Being."
Officers of Administration

Jacob I. Hartstein, B.A., M.S., M.A., Ph.D., L.H.D. President
Thomas J. Diener, B.A., M.S., Assistant to the President
Mae Perlman, Secretary to the President

Israel Glasser, B.A., M.P.A., Ph.D. Dean of Faculty
Ralph Edwards, B.S., M.S., Ed.D. Dean of Administration
David B. Silver, A.B., LL.B., Executive Assistant to the Dean of Administration

Irene R. Kiernan, B.A., M.A., Ph.D. Dean of Students
Seymour P. Lachman, B.A., M.A., Ph.D. Director of Kingsborough Community College in Mid-Brooklyn
M. Fred Tidwell, B.S., M.A., Ed.D. Director of Evening Studies and Continuing Education
Richard M. Graf, B.A., M.A., Ed.D. Assistant Dean of Faculty and Director of the Summer Sessions
John P. Petrelli, B.A., M.A. Assistant Dean of Students
Howard M. Fibel, B.S., M.B.A. Fiscal Officer
Gordon A. Rowell, B.A., B.S., M.A. Chief Librarian
Sarah Hoagland, B.S. Acting Registrar
Samuel I. Rovner, B.A., M.S. Coordinator of Publications and Public Information
Morton Thompson, B.S., M.A., Ed.D. Coordinator of the City University College Center
Patrick J. Kearns Superintendent of Buildings

COLLEGE PHYSICIANS

Joseph Beller, B.S., M.D. At Manhattan Beach and City University College Center
Dennis J. Fiorentino, B.S., M.D., F.A.C.S. At Mid-Brooklyn
Divisional Chairmen And Program Administrators and Coordinators

Dave Berkman, B.A., M.S., Ed.D.  Coordinator of Communications Media Resources
Irving Allen Dodes, B.S., A.M., Ph.D.  Chairman, Division of Mathematics and Science
Ralph Edwards, B.S., M.S., Ed.D.  Chairman, Division of Health Science, Health and Physical Education
Holman W. Jenkins, A.B., M.A., Ph.D.  Chairman, Division of Behavioral and Social Sciences
Essie E. Lee, R.N., R.P.T., B.S., M.A.  Coordinator of the College Discovery Program
Jesse Virgil Mauzey, A.B., M.A., Ph.D.  Chairman, Division of Language, Literature, and the Arts
Eunice L. Miller, A.B., M.A., Ph.D.  Administrator of the Programs in Secretarial Science
John P. Petrelli, B.A., M.A.  Coordinator of the SEEK Program
John O. H. Stigall, A.B., M.A., LL.B., Ph.D.  Coordinator of Honors and Independent Study
Sophia Yaczola, Diploma (Mercy Hospital), B.S., A.M., Ed.D.  Administrator of the Nursing Program
Officers of Instruction*
(As of November 1, 1966)

Howard Abel, Lecturer in Secretarial Science
B.S. 1952, M.S. 1953, Florida State University

Leonard S. Abrams, Associate Professor of Biology

James D. Allen, Assistant Professor of English
B.A. 1947, University of California; Ph.D. 1961, University of Washington

Isidor M. Apterbach, Instructor in English
B.A. 1962, Brooklyn College; M.A. 1964, Trinity College

Marcia Babbitt, Lecturer in Spanish
B.A. 1963, Temple University; M.A. 1965, State University of Iowa

David A. Bachrach, Lecturer in Mathematics
B.Ph. 1945, University of Chicago; M.A. 1966, Boston College

Catherine Shea Barry, Instructor in Secretarial Science
B.B.A. 1961, St. John's University; M.S. 1965, Hunter College

Dorothy A. Beckmann, Instructor in Speech
B.A. 1953, M.A. 1954, Queens College

Mildred A. Bennett, Instructor in Nursing
Diploma 1957, Fordham Hospital School of Nursing; B.S. 1964, M.A. 1966, New York University

Dave Berkman, Assistant Professor of Communications; Coordinator of Communications Media Resources
B.A. 1955, Long Island University; M.S. 1956, Syracuse University; Ed.D. 1963, New York University

Edward H. Bersoff, Instructor in Mathematics
A.B. 1962, M.S. 1964, New York University

Robert S. Burton, Lecturer in Mathematics
B. Che. 1956, Cornell University; M.A. 1961, University of Colorado

Raymond Butts, Lecturer in English
B.A. 1947, S.T.L. 1951, St. Mary's Seminary; M.A. 1959, Fordham University

Daniel J. Callahan, Lecturer in Speech
B.A. 1953, M.A. 1962, Brooklyn College

Betty Caroli, Lecturer in Speech
B.A. 1960, Oberlin College; M.A. 1961, University of Pennsylvania

Michael A. Carrera, Assistant Professor of Health and Physical Education
B.S. 1959, Manhattan College; M.S. 1961, University of Illinois

Mary I. Casmus, Assistant Professor of Speech
A.B. 1947, University of Alabama; M.A. 1949, Ph.D. 1962, Columbia University

* Including Lecturers serving the City University College Center administered by Kingsborough Community College and full-time Lecturers serving with the "Upward Bound" project.
Geraldine M. Chapey, Lecturer in Psychology
  B.S. 1963, St. John’s University; M.A. 1964, Columbia University

John R. Clune, Assistant Librarian with rank of Instructor
  B.A. 1956, St. Joseph’s Seminary and Cathedral College; M.L.S. 1966, Pratt Institute

Enid R. Coel, Lecturer in French
  B.A. 1960, The City College; M.A. 1961, Middlebury College

Stanley G. Cohen, Lecturer in Music
  B.S. 1950, New York University; M.A. 1952, Queens College; Ed.D. 1963, New York University

Woolf Colvin, Associate Professor of Education
  B.A. 1920, M.A. 1921, University of Toronto; Ph.D. 1923, Cornell University

Mary V. Crowley, Lecturer in Spanish
  B.A. 1959, Barry College for Women; M.A. 1965, Adelphi University

Daniel T. Davis Jr., Instructor in Physics
  B.S. 1958, M.A. 1961, University of Texas

Netta Dershowitz, Instructor in Psychology
  A.B. 1960, Brooklyn College; M.A. 1963, New School for Social Research

Thomas J. Diener, Lecturer; Assistant to the President
  B.A. 1955, Goshen College; M.S. 1958, Indiana University

Irving Allen Dodes, Professor of Mathematics; Chairman, Division of Mathematics and Science
  B.S. 1934, The City College; M.A. 1937, Columbia University; Ph.D. 1945, New York University

Andrew H. Drummond, Assistant Professor of English and Speech
  B.A. 1951, Grinnell College; M.F.A. 1958, Columbia University

Ephraim D. Dworetsky, Associate Professor of Accounting
  B.B.A. 1942, M.B.A. 1959, The City College; C.P.A. 1946, University of the State of New York

Ralph Edwards, Professor of Health and Physical Education; Chairman, Division of Health Science, Health and Physical Education; Dean of Administration
  B.S. 1953, The City College; M.S. 1954, University of Illinois; Ed.D. 1959, Columbia University

Harold Engelsohn, Lecturer in Mathematics
  B.S. 1959, Brooklyn College

Benjamin Eskenazi, Lecturer in Health and Physical Education
  B.S. 1965, M.S. 1966, The City College

Laurence Fenton, Assistant Professor of Accounting
  B.A. 1933, M.B.A. 1938, The City College; C.P.A. 1947, University of the State of New York

Bernice Finger, Lecturer in Nursing
  Diploma 1941, Jewish Hospital School of Nursing; B.S. 1948, M.A. 1949, New York University

Samuel Gale, Instructor in Mathematics
  B.A. 1957, Queens College; M.F.A. 1959, Princeton University; M.A. 1964, New York University
Carol A. Gerwin, Instructor in Biology  
B.A. 1961, M.A. 1965, Brooklyn College

Barbara R. Ginsberg, Instructor in Health and Physical Education  
B.S. 1961, Brooklyn College; M.S. 1963, University of Wisconsin

Israel Glasser, Professor of Political Science; Dean of Faculty  
B.A. 1943, Brooklyn College; M.P.A. 1946, Ph.D. 1957, New York University

Ellen F. Goldstein, Instructor in French  
B.A. 1961, Smith College; M.A. 1964, University of California

Jeanette Goodman, Lecturer in French  
B.A. 1937, M.A. 1964, Hunter College

Miles Goodman, Assistant Professor of Chemistry  
B.S. 1954, Brooklyn College; M.A. 1955, Yale University

Richard M. Graf, Associate Professor of French and Education; Assistant Dean of Faculty; Director of the Summer Sessions  

Stanley J. Granat, Lecturer in Social Science  
B.A. 1960, The City College; M.A. 1963, Indiana University

Harvey M. Greene, Assistant Professor of Business  

George Griffith, Lecturer in Music  
B.M. 1939, Wichita State University; M.M. 1948, University of Southern California; E.D. 1962, Columbia University

Louise S. Grinstein, Assistant Professor of Mathematics  
B.A. 1950, M.A. 1952, University of Buffalo; Ph.D. 1965, Columbia University

Stanley J. Gross, Instructor in Health and Physical Education  
B.S. 1961, Brooklyn College; M.S. 1962, Indiana University

Norman H. Hanover, Instructor in Social Science  
A.B. 1962, New York University; M.A. 1964, Harvard University

Peter Hanssen, Assistant Professor of Art  
B.S. 1960, M.F.A. 1961, Pratt Institute

Jacob I. Hartstein, Professor of Education of the City University of New York; President, Kingsborough Community College  
B.A. 1932, Yeshiva University; M.S. 1933, The City College; M.A. 1936, Columbia University; Ph.D. 1945, New York University; L.H.D. 1962, Yeshiva University

Irwin R. Hecht, Assistant Professor of Biology  
B.S. 1958, M.A. 1963, Brooklyn College

Helen Hellman, Assistant Professor of French  
A.B. 1955, State University of Iowa; M.A. 1959, University of Pennsylvania

Julio E. Hernandez-Miyares, Instructor in Spanish  
B.A. 1948, Colegio de Belen, Havana; LL.D. 1953, University of Havana; M.A. 1966, New York University

Morton Hirschk, Instructor in Economics  
B.B.A. 1957, M.B.A. 1964, The City College

Joseph G. Hitrec, Instructor in English  
M.A. 1934, Royal University of Zagreb (Yugoslavia)
Charles L. Holt, Assistant Professor of English
B.A. 1950, M.A. 1952, University of Missouri; Ph.D. 1963, Wayne State University

Alfonse K. Homeha, Lecturer in Social Science
B.A. 1956, Lane College; M.A. 1961, New York University

— Florence Houser, Assistant Librarian with rank of Assistant Professor
B.A. 1944, Brooklyn College; B.L.S. 1946, Columbia University

Despoina Ikaris, Assistant Professor of English
B.A. 1943, M.A. 1947, University of Pittsburgh; Ph.D. 1955, Birkbeck College, University of London

Lester Jackson, Lecturer in Social Science
B.A. 1960, The City College; M.A. 1961, University of Wisconsin

Charles G. Jacobs, Assistant Professor of Music
B.S. 1947, Johns Hopkins University; M.A. 1951, Ph.D. 1962, New York University

Lester D. Jacobs, Instructor in English
A.B. 1956, A.M. 1960, New York University

Louise Jaffe, Instructor in English
B.A. 1956, Queens College; M.A. 1959, Hunter College; Ph.D. 1965, University of Nebraska

Holman W. Jenkins, Professor of Political Science; Chairman, Division of Behavioral and Social Sciences
A.B. 1943, The Citadel; M.A. 1948, Ph.D. 1958, University of Pennsylvania

Carole Ann Jeschor, Instructor in Nursing
Diploma 1958, Lenox Hill Hospital School of Nursing; B.S. 1961, M.A. 1963, Columbia University

Phyllis Kalnitsky, Lecturer in English
B.A. 1951, Hunter College; M.A. 1962, Long Island University

Bella Kanturek, Instructor in Nursing
Diploma 1954, Mt. Sinai Hospital School of Nursing; B.S. 1957, M.A. 1961, New York University

— Sharad D. Karkhanis, Assistant Librarian with rank of Assistant Professor
B.A. 1958, University of Bombay; M.L.S. 1962, Rutgers University

Richard A. Kaye, Instructor in Health and Physical Education
B.S. 1961, New York University; M.S. 1964, The City College

David M. Keller, Assistant Professor of English and Speech
B.A. 1959, Brooklyn College; M.F.A. 1963, Yale University

Eunice R. Kessler, Assistant Professor of Nursing
Diploma 1947, Jewish Hospital; B.S. 1950, M.A. 1955, New York University

Irene R. Kiernan, Professor of Sociology; Dean of Students
B.A. 1942, College of Mt. St. Vincent; M.A. 1944, Fordham University; Ph.D. 1958, New York University

Harry Kirsch, Associate Professor of Economics
B.S.S. 1931, The City College; M.A. 1932, Columbia University; Ph.D. 1939, Fordham University
Goodman L. Klang, Instructor in Business
B.A. 1947, Brooklyn College; M.A. 1952, New York University

Bernard Klein, Assistant Professor of History
B.A. 1954, Brooklyn College; M.A. 1956, Ph.D. 1962, Columbia University

Catherine A. Krepplein, Student Counselor with rank of Lecturer
B.S. 1946, New York University; M.S. 1949, St. John’s University

Seymour P. Lachman, Associate Professor of History; Director of Kingsborough Community College in Mid-Brooklyn
B.A. 1955, M.A. 1958, Brooklyn College; Ph.D. 1963, New York University

Frances Lake, Lecturer in Mathematics
B.A. 1964, Brooklyn College

Essie E. Lee, Assistant Professor; Coordinator of the College Discovery Program
R.N. 1940, Lincoln School of Nursing; R.P.T. 1948, B.S. 1954, New York University; M.A. 1956, Columbia University; Professional Diploma 1962, The City College

Howard Lempert, Instructor in Health and Physical Education
B.S. 1962, The City College; M.S. 1964, Columbia University

Ann Marie Leonetti, Student Counselor with rank of Assistant Professor
B.S. 1952, M.S. 1954, Ph.D. 1964, St. John’s University

Richard Lerer, Student Counselor with rank of Lecturer
B.A. 1953, M.S. 1958, Brooklyn College

Melvin L. Levine, Assistant Professor of Accounting

Milton A. Levy, Lecturer in English
B.A. 1955, Upsala College

Rachel Lieff, Assistant Professor of Mathematics
B.A. 1944, B.E. 1945, University of Cincinnati; M.A. 1954, Columbia University

Herbert Lilling, Instructor in Chemistry
B.S. 1958, M.A. 1962, Brooklyn College

Margaret Ann Lipscomb, Instructor in Health and Physical Education
B.S. 1956, Alabama State College; M.A. 1960, New York University

Anthony Philip Lloyd, Instructor in Spanish
B.A. 1954, M.A. 1960, Selwyn College, Cambridge University

Thelma London, Instructor in Mathematics
B.S. 1959, Columbia University; M.A. 1963, New York University

Jacqueline Lord, Lecturer in English
B.S. 1956, New York University; M.A. 1957, Brooklyn College

Barry A. Lustig, Student Counselor with rank of Instructor
B.A. 1963, Queens College; M.A. 1965, New York University

Theodore Markus, Instructor in Biology
B.S. 1962, Brooklyn College; M.S. 1965, University of Michigan

Jesse Virgil Mauzev, Professor of Language and Literature; Chairman, Division of Language, Literature, and the Arts
A.B. 1926, Chapman College; M.A. 1929, Ph.D. 1933, Columbia University
Jacob Mermelstein, Assistant Professor of Psychology

Charles H. Metz, Instructor in Mathematics
  B.B.A. 1955, St. John's University; M.S. 1961, University of Notre Dame

Eunice L. Miller, Professor of Secretarial Science; Administrator of the Programs in Secretarial Science
  A.B. 1937, University of Rochester; M.A. 1953, Ph.D. 1957, New York University

Frances Conso1o Mostel, Instructor in Secretarial Science
  B.B.A. 1952, St. John's University; M.S. 1959, Long Island University

Richard J. Nachtsheim, Instructor in Social Science
  A.A. 1951, St. Charles College (Maryland); B.A., M.A., S.T.B. 1956, Catholic University of America; M.A. 1958, Fordham University

Edward H. Nober, Instructor in Health and Physical Education

Thomas Overkleeft, Instructor in Sociology
  A.B. 1948, Aquinas College; M.S. 1954, Loyola University

Elliott S. Palais, Student Counselor with rank of Assistant Professor

Herman M. Patterson, Assistant Professor of Science
  B.A. 1957, M.A. 1959, New York University

John P. Petrelli, Associate Professor; Assistant Dean of Students; Coordinator of the SEEK Program
  B.A. 1940, Brooklyn College; M.A. 1951, New York University

Angelica Petrides, Instructor in Health and Physical Education
  B.A. 1953, Hunter College; M.A. 1956, Columbia University

Mildred Pitts, Instructor in Nursing
  Diploma 1954, Lowell (Mass.) General Hospital School of Nursing; B.S. 1959, M.Ed. 1965, Columbia University

June M. Polychron, Instructor in Nursing
  Diploma 1948, Presbyterian School of Nursing, Denver; B.S. 1964, M.A. 1965, Columbia University

Stephen Posen, Lecturer in Art
  B.F.A. 1962, Washington University; M.F.A. 1964, Yale University

Albert Prago, Instructor in History
  B.S.S. 1934, The City College; M.A. 1964, Hofstra University

Stanley Rabinowitz, Lecturer in Mathematics
  B.S. 1960, The City College

Miriam M. Reinhart, Associate Professor of Speech
  B.A. 1925, Reed College; M.A. 1926, University of Washington; Ph.D. 1953, New York University

Irving Resnick, Associate Professor of Physics
  B.A. 1942, Brooklyn College; M.S. 1944, University of North Carolina, Ph.D. 1950, Johns Hopkins University
Sydney Rosenberg, Instructor in Social Science
B.A. 1956, Brooklyn College; M.A. 1957, Columbia University

Belle Rothberg, Instructor in English
B.A. 1958, M.A. 1963, Brooklyn College

Samuel I. Rovner, Lecturer in Business; Coordinator of Publications and Public Information
B.A. 1939, University of Buffalo; M.S. 1943, Columbia University

Gordon A. Rowell, Professor; Chief Librarian
B.A. 1935, Bowdoin College; B.S. 1946, M.A. 1953, Columbia University

James U. Rundle, Lecturer in English
A.B. 1933, Knox College; A.M. 1936, University of New Mexico; Ph.D. 1947, University of Cincinnati

Anthony F. Russo, Assistant Professor of Health and Physical Education
B.A. 1956, M.A. 1958, Hunter College

John Satra, Instructor in Social Science
D.J. 1948, Carolinian University, Prague; Ph.D. 1961, University of Florida

Leon A. Schein, Student Counselor with rank of Instructor
B.A. 1961, Brooklyn College; M.A. 1963, Columbia University

Samuel Scherek, Lecturer in Health and Physical Education
B.S. 1962, M.S. 1964, Brooklyn College

Adele Schneider, Assistant Librarian with rank of Instructor
B.A. 1945, Brooklyn College; M.L.S. 1965, Pratt Institute

Ronald Schwartz, Instructor in Spanish
B.A. 1959, Brooklyn College; M.A. 1961, University of Connecticut

Robert H. Secrist, Assistant Professor of Modern Languages
A.B. 1957, Harvard University; M.A. 1959, Ph.D. 1965, New York University

Joan T. Sedgwick, Instructor in American Civilization
B.A. 1958, Hunter College; M.A. 1959, Columbia University

Matthew Shalette, Instructor in Biology
B.A. 1958, American International College; M.S. 1962, New York University

Michael Sherker, Instructor in Art
B.A. 1957, M. S. 1958, Brooklyn College

Lillian Sherman, Student Counselor with rank of Instructor
B.S. 1956, M.A. 1959, The City College

David B. Silver, Lecturer in Business; Executive Assistant to the Dean of Administration
A.B. 1948, Amherst College; LL.B. 1951, University of Pennsylvania

Juliann Skurdenis-Smircich, Lecturer, Library
B.A. 1964, College of New Rochelle; M.S. 1966, Columbia University

Ralph B. Smith, Instructor in History
B.A. 1947, B.F.A. 1956, B.S.(Ed.) 1956, Ohio State University; M.A. 1948, Rice University

Miguel Soto, Visiting Assistant Professor of Spanish
B.A. 1940, University of Puerto Rico; M.A. 1948, Ph.D. 1950, Universidad Nacional de Mexico
John O. H. Stigall, *Professor of History and Literature; Coordinator of Honors and Independent Study*
A.B. 1929, Dartmouth College; B.A. 1932, M.A. 1954, Magdalen College, Oxford University; L.L.B. 1935, Georgetown University; M.A. 1953, University of Kansas City; Ph.D. 1956, University of Colorado

Conrad F. Stoerker, *Assistant Professor of Social Science*
A.A. 1937, St. Joseph (Mo.) Junior College; A.B. 1939, Baker University; S.T.B. 1942, Boston University; Ph.D. 1966, University of Missouri

Isaac A. Stone, *Lecturer in Social Science*
B.S. 1929, Boston University; M.A. 1931, Ph.D. 1935, Harvard University

Morton Tanenbaum, *Student Counselor with rank of Instructor*
A.B. 1957, Ed.M. 1959, University of Rochester

Morton Thompson, *Lecturer in Health and Physical Education; Coordinator of the City University College Center*

M. Fred Tidwell, *Professor of Business; Director of Evening Studies and Continuing Education*
B.S. 1933, Southwestern Institute of Technology; M.A. 1935, Oklahoma State University; Ed.D. 1948, Stanford University

Stephen S. Weidenborner, *Instructor in English*
A.B. 1956, Princeton University

Walter Weintraub, *Assistant Professor of Business Administration*
B.S. 1954, M.B.A. 1959, New York University

Edward Wiener, *Instructor in Accounting*
B.B.A. 1947, St. John’s University; C.P.A. 1954, University of the State of New York; M.A. 1966, New School for Social Research

Jack S. Wolkenfeld, *Associate Professor of English*
B.A. 1952, Brooklyn College; M.A. 1958, Ph.D. 1966, Columbia University

Sophia Yaczola, *Professor of Nursing; Administrator of the Nursing Program*
Diploma 1945, Mercy Hospital; B.S. (Nursing Education) 1947, Duquesne University; M.A. 1959, Ed.D. 1964, Columbia University

Sylvia Young, *Instructor in Mathematics*
B.S. 1963, Queens College; M.S. 1965, Yeshiva University

Zev Zahavy, *Instructor in English*
B.A. 1939, M.H.L. 1948, Ph.D. 1959, Yeshiva University

Meryl Spencer Zaretzky, *Student Counselor with rank of Lecturer*
B.A. 1960, The City College; M.A. 1962, New York University

**Adjunct Faculty**

Alvin Abelack, *Lecturer in English*
B.A. 1957, M.A. 1962, Brooklyn College

Emily Aibel, *Student Counselor with rank of Lecturer*
B.S. 1942, M.A. 1965, New York University
Yvette Bader, Lecturer in English
B.A. 1943, Brooklyn College; M.A. 1949, New York University; B.Mus. 1945, M.Mus 1949, Manhattan School of Music; Ed.D. 1958, Columbia University

Jack Bolen, Lecturer in Art
B.F.A. 1957, M.F.A. 1958, Kansas City Art Institute and School of Design

Charles Brandwein, Lecturer in Mathematics
B.A. 1966, Brooklyn College

Fannie Chipman, Lecturer in Art
B.A. 1931, Hunter College; M.A. 1932, Columbia University

Franklin Claire, Lecturer in Psychology
A.B. 1959, Muhlenberg College; M.S. 1960, Long Island University

Allen Feingertz, Lecturer in Business Law
B.A. 1957, Brooklyn College; LL.B. 1960, New York University

Leo Fenster, Lecturer in Biology
B.S. 1933, New York University; M.A. 1959, Columbia University

Marvin Gardner, Lecturer in Business
B.A. 1957, Brooklyn College; LL.B. 1961, LL.M. 1965, Brooklyn Law School

William Goldstein, Lecturer in Accounting
B.B.A. 1942, St. John's University; C.P.A. 1949, University of the State of New York

Benjamin Greenblatt, Student Counselor with rank of Lecturer
B.A. 1947, Brooklyn College; M.A. 1957, New York University

Alexander Langfelder, Lecturer in Business Law
B.S. 1934, M.S. 1938, The City College

Vincent R. Liguori, Lecturer in Biology
B.S. 1951, St. Francis College; M.S. 1958, Long Island University

Abraham H. Litke, Lecturer in Business Law
B.S. 1929, J.D. 1931, New York University

Sara E. V. Lizt, Lecturer in Business Law
LL.B. 1941, LL.M. 1966, Brooklyn Law School

Florence Maloney, Lecturer in Secretarial Science
B.B.A. 1962, Pace College; M.S. 1965, Hunter College

Hugh Mc Dougall, Lecturer in Secretarial Science
B.A. 1950, Adelphi College; M.S. 1957, Queens College

Naomi Platt, Lecturer in Secretarial Science
B.S. 1958, M.S. 1961, The City College

Herbert Schnur, Lecturer in Accounting
B.B.A. 1941, M.B.A. 1964, The City College; C.P.A. 1951, University of the State of New York

Harold von Arx, Lecturer in Education
B.S. 1932, M.A. 1932, New York University

Clarence N. Weems, Lecturer in Economics
B.A. 1930, M.A. 1933, Vanderbilt University; Ph.D. 1954, Columbia University

J. Howard Wyner, Lecturer in Business
B.A. 1943, M.B.A. 1947, University of Wisconsin
Lionel Zamore, Lecturer in Economics
B.A. 1940, Brooklyn College; M.B.A. 1954, New York University
Jules S. Zimmerman, Lecturer in Social Science
A.B. 1955, A.M. 1962, Brooklyn College

**Professional Assistants**

--- Richard J. Amster, College Science Assistant, Library
B.A. 1966, Syracuse University

Bernice Askin, Nurse (Evening Session and City University College Center)
R.N. 1950, Kings County Hospital; B.S. 1958, New York University

Shirley Bernhard, Nurse (Mid-Brooklyn)
R.N. 1948, Brooklyn Jewish Hospital

Michael Bloomberg, College Science Assistant, Physics
A.A. 1963, Staten Island Community College

Albertine Eriksen, College Science Assistant, Microbiology

Peter Greene, College Science Assistant, Graphic Arts
Certificate 1963, Parsons School of Design

Ruth Kahaner, Staff Nurse
R.N. 1962, Brooklyn Jewish Hospital

--- Edna S. Levine, College Science Assistant, Library

--- Estelle Meskin, College Science Assistant, Library

Marion Saccardi, College Science Assistant, Biology

Gary Sarinsky, College Science Assistant, Chemistry
A.A. 1964, Bronx Community College

Ilene M. Siegel, College Science Assistant, Biology
B.S. 1962, Monmouth College

Tasia Wolf, College Science Assistant, Foreign Languages
B.A. 1961, Hofstra University

**Auxiliary Administrative Personnel**

Florence Brown, Assistant Accountant, Fiscal Office

Wallace Cane, Assistant Buyer, Fiscal Office

Minna Goldstein, Assistant Accountant, Fiscal Office

Estelle Goodman, Assistant Accountant, Fiscal Office

Eugene Sanjour, Senior Accountant, Fiscal Office
A.B. 1952, The City College

Irving Sechter, Assistant Buyer, Fiscal Office

Blanche I. Tomack, Accountant, Fiscal Office
Supporting Staff

Dorothy Baker ........... Typist, Division of Behavioral and Social Science
Florence Bernstein ...... Stenographer, Office of Dean of Faculty
Evelyn Butler ............ College Assistant, Office of Registrar
Marlene DeBiaso .......... Stenographer, City University College Center
Sylvia Degann ............ Clerk, Division of Library
Leonore Dick ............. Clerk, Fiscal Office
Faye Fein ................. Stenographer, Office of Superintendent of Buildings
Selma Feiner ............. Account Clerk, Office of Student Activities
Jean Freedenburg ........ Stenographer, Office of Evening Studies and Continuing Education
Rosalind F. Gehrman ..... Typist, Division of Language, Literature, and the Arts
Marion Glick ............. Stenographer, College Discovery Program
Eugene Goldberg .......... Office Appliance Operator
Sylvia Golden ............ Typist, City University College Center
Dinah Goldman ........... Typist, Division of Student Services
Emily Gorman ............. Stenographer, Office of Nursing Program
Arlene J. Gottesman ...... Stenographer, Office of Director, Mid-Brooklyn
Marilyn Greditor .......... Typist, Office of Director, Mid-Brooklyn
Harriet Greengart ........ College Assistant, Office of Publications and Public Information
Patricia Greenwald ........ Stenographer, Fiscal Office
Jules Hager ............... Inventory and Supplies System Foreman
Beverly Hauser ........... Stenographer, City University College Center
Alice Hayden ............. Stenographer, Office of Communications Media Resources
Allan Hellerstein .......... College Assistant, Office of Registrar
Toby Hersh ................. College Assistant, Office of Registrar
Rose Hershkowitz .......... College Assistant, Office of Registrar
Selma Hoffner ............ Stenographer, Division of Student Services
Claire Jacobs ............. Typist, Office of Dean of Administration
Harriet Katz .............. College Assistant, Office of Registrar
Emily Kingston .......... Typist, Office of Registrar
Estelle Klein ............. Typist, Switchboard Operator
Blanche Koffler .......... College Assistant, Office of Registrar
Barbara Kramer .......... Typist, College Discovery Program
Frieda Kramer .......... Stenographer, Division of Health Science, Health and Physical Education
Doris Landman .......... Stenographer, Division of Behavioral and Social Sciences
Helen B. Langer .......... Typist, Division of Mathematics and Science
Sylvia Lazarowitz .......... Stenographer, Office of Assistant Dean of Students
Janet Mason .......... College Assistant, Office of Registrar
Primrose Morris .......... Mail Clerk
Mildred Nemiroff .......... Typist, Office of Dean of Faculty
Rosalyn Neustadt .......... Stenographer, Office of Dean of Administration
Eugene O’Brien .......... Mail Clerk, Messenger
Rhoda Ostrow .......... Stenographer, Division of Mathematics and Science
Elias J. Page .......... Office Appliance Operator
Ray Pearl .......... Stenographer, Fiscal Office
Jessie Quartner .......... Switchboard Operator
Ruth Rackoff .......... Typist, Office of President
Isaac Reid .......... Office Appliance Operator
Evelyn Resnick .......... Typist, Personnel Office
Evelyn Ribakove .......... College Assistant, Fiscal Office
Barbara Riina .......... Stenographer, Division of Behavioral and Social Sciences
Dorothy Rosenthal .......... Typist, Division of Library
Minna Rosenthal .......... Stenographer, Office of Evening Studies and Continuing Education
Charlotte Sacks .......... Typist, Fiscal Office
Ray Salamo .......... Assistant Stockman, Fiscal Office
Sarah Salvo .......... Stenographer, Office of Dean of Students
Diana Schecker .......... Stenographer, Division of Language, Literature, and the Arts
Stella Scher .......... Typist, Fiscal Office
Sylvia Schneider .......... Stenographer, Office of Assistant Dean of Faculty
Frances B. Schulof .......... Typist, Office of Director, Mid-Brooklyn
Estelle Segal .......... Stenographer, Office of Student Activities
Ruth Shwam .......... Typist, Office of Registrar
Florence Silver . . . . . . College Assistant, Office of Honors and Independent Study
Florence Sossner . . . . . . College Assistant, Fiscal Office
Frances Straim . . . . . . College Assistant, Personnel Office
Jean Talberth . . . . . . Account Clerk, Fiscal Office
Vera Thomas . . . . . . College Assistant, Office of Dean of Students
Julia Thompson . . . . . . Keypunch Operator
Rose W. Tubin . . . . . . College Assistant, Office of Publications and Public Information
Lillian Weinman . . . . . . Typist, Division of Library
Ann Weissman . . . . . . College Assistant, Fiscal Office
Grace Weissman . . . . . . Clerk, Division of Library
Joan Wlecke . . . . . . Stenographer, Office of President
Rhoda Zak . . . . . . Stenographer, Office of Registrar

Maintenance Staff
Arthur Anderson . . . . . . Cleaner
Stephen Blake . . . . . . Building Repair Man
Leonard H. Dunlap . . . . . Cleaner
Rosemarie Errico . . . . . . Cleaner
Arthur Finegan . . . . . . Fireman
Marc Jean Francois . . . . . Cleaner
Emmanuel Joseph . . . . . Cleaner
Michael Lucchesi . . . . . Cleaner
Nicholas Marra . . . . . . Senior Building Repair Man
John McGlade . . . . . . Cleaner
Paul Meredith . . . . . . Cleaner
Joseph Michel . . . . . . Cleaner
Alfonso O. Moore . . . . . Cleaner
Evelyn Robinson . . . . . Cleaner
Mario Russo . . . . . . Cleaner
William Vaughn . . . . . . Cleaner
General Information

HISTORY OF THE COLLEGE

In June of 1962, the Board of Higher Education of the City of New York, at the request of community leaders and organizations, adopted a resolution calling for a study of the need for a new community college in Brooklyn. A committee of the Board was appointed in November of the same year, under the chairmanship of the Honorable Gladys M. Dorman. Other members of the committee were the Honorable Mary S. Ingraham, Honorable Edward D. Re, Honorable Arthur Rosencrans, and the Honorable Arleigh B. Williamson.

The committee's report, submitted in March, 1963, recommended that the Board sponsor and establish Kingsborough Community College in Brooklyn. The Board approved the proposal in principle on March 18, 1963. Approval was voted also by the Board of Estimate of the City of New York on June 13, and by the Trustees of the State University of New York on September 12 of the same year.

A staunch supporter of the fledgling institution throughout its formative period was Dr. Gustave G. Rosenberg, then Chairman of the Board of Higher Education.

Plans for establishment of the College were accelerated with the appointment of Dr. Jacob I. Hartstein, a distinguished educator, administrator, and community leader, as President. When he took office on March 1, 1964, Dr. Hartstein was faced with the massive and manifold task of recruiting faculty, developing curricula, selecting temporary physical sites, assembling a student body, and meeting the numerous other problems attendant upon the opening of a new college.

The problems were met. Six months later, in September, 1964, Kingsborough Community College opened its doors with a faculty of 39 and a freshman class of 468, in two temporary locations—former Public School 98 in Sheepshead Bay and, in Mid-Brooklyn, the Masonic Temple at Clermont and Lafayette Avenues.

Courses of study were offered in the Liberal Arts and Sciences, leading to the degree of Associate in Arts (A.A.), and in Accounting, Business Administration, and Secretarial Science, leading to the Associate in Applied Science (A.A.S.) degree.

On October 6, 1964, Mayor Robert F. Wagner announced that the Federal government had made available the former Air Force training center at Manhattan Beach as the site for a permanent campus of Kingsborough Community College, to replace the facility at Sheepshead Bay.

The 60-acre tract was formally deeded to the Board of Higher Educa-
tion in April, 1965. Rehabilitation work was started immediately on two of the former Air Force classroom buildings on the site, in preparation for welcoming to the new campus in September, 1965, a daytime student body of 1,061, three times as large as that of a year earlier. Kingsborough in Mid-Brooklyn, as well, enrolled a considerably larger class for 1965-66—442—for a total Fall-term daytime enrollment of 1,503. Another 410 registered in the newly inaugurated program of Evening Studies and Continuing Education. The full-time College faculty numbered 91.

Continuing its rapid growth, the College enrolled 1,931 full-time day students in the Fall of 1966 and 755 in the evening session, for a total of 2,686, and the full-time faculty had grown by now to 143.

A program in Nursing, leading to the degree of Associate in Applied Science (A.A.S.) and qualifying graduates to take the New York State licensing examination for Registered Nurse, was inaugurated in September, 1965.

The Summer program was started in 1965 with a single session, while the College was still in its first year of operation. The following year the Summer program was expanded to include two six-week day sessions and an eight-week evening session.

The program of Evening Studies and Continuing Education, which began in September, 1965, was expanded the following year with the addition of non-credit cultural and general information courses. At the same time, the number of credit course offerings was also expanded.

In the Fall of 1966 new programs were offered in Mathematics and the Sciences, including Computer Science, leading to the degree of Associate in Science (A.S.), and new programs leading to the Associate in Applied Science (A.A.S.) degree, among them Banking, Data Processing, Industrial and Labor Relations, Insurance, Real Estate, and Retail Business Management.

At the same time plans were being drawn up for the early introduction of additional degree programs. Among those under consideration are a transfer program in Pre-Physical Therapy and career programs in Civil and Public Service Technician, Court Reporting, Educational Aide, Geriatrics Aide, Library Technician, Medical Records Librarian, Medical Secretarial Science, Medical Technology, and Recreation Supervisor.

Also under consideration are certificate and diploma programs in Bookkeeping, Merchandising, Office Machine Operation, Practical Nursing, Secretarial-Stenography, and Unit Record Equipment.

**AFFILIATION AND ACCREDITATION**

Kingsborough Community College is a constituent unit of the City University of New York, which is administered by the Board of Higher
Education. It is also one of 28 community colleges affiliated with, and operating under the program of, the State University of New York.

The College is accredited by the Middle States Association of Colleges and Secondary Schools as a unit of the City University. Its various academic programs have been approved by the State University of New York and the University of the State of New York, the State Education Department.

The College is a member of the American Association of Junior Colleges, American Council on Education, Association of Colleges and Universities of the State of New York, Junior College Council of the Middle Atlantic States, Middle States Association of Colleges and Secondary Schools, New York State Association of Junior Colleges, and Council of Higher Educational Institutions in New York City.

THE FACULTY

The Faculty of Kingsborough Community College represents a diversity in educational and teaching background. Appointments to the Faculty are made only after thoroughgoing screening of many applicants, the major requirements being scholarly attainment, instructional competence, and recognition in the field of education.

While emphasis is placed on professional achievement in the College's pursuit of excellence, it seeks also in its Faculty recognition not only of the student's intellectual needs, but also of his need for guidance, inspiration, human understanding, and social growth. All members of the instructional staff participate in the College's Faculty Adviser system, which makes available to the students, individually, advice on their academic programs and study problems, over and above the normal counseling provided by the Division of Student Services.

The College strives, in short, to build a Faculty well-rounded collectively and individually; a Faculty that sees as its primary responsibility to develop in each student his maximum potential for self-fulfillment and contribution to society.

AIMS AND OBJECTIVES

Kingsborough Community College is a part of the great community college movement, which is bringing within the financial and geographic reach of thousands of Americans—youth and adults—educational opportunities that would not otherwise be available to them. This movement, the most significant aspect of the Twentieth Century revolution in higher education, is also the most outstanding single development in the field since the launching of the land grant colleges under the Morrill Act a century ago.
As a community college, Kingsborough is aware of its primary responsibility to the communities of which it is a part. Accordingly, it strives to help meet the community's need for higher education facilities; the needs of business and industry, the financial institutions, and labor and management; community and other cultural needs; the need for continuing and adult education; and the need to recruit, train, and educate the culturally, socially, or educationally disadvantaged, and so help make equality of opportunity an operational fact of life.

As a unit of the City University of New York and of the State University of New York, Kingsborough Community College is fully aware of the distinguished tradition of learning and the dedication to excellence of which it is a part.

In this spirit, every student of Kingsborough is required to pursue simultaneously both a well-rounded core program of studies designed to provide a sound general education of quality and a carefully designed program of pre-professional study or occupational education.

The College is determined to pursue the integration of liberal education and semi-professional or technical education, of knowledge and its application, of theory and practice, not only within the same institution but also within the same human being—within every student who comes within the College's influence. Courses, curricula, programs, and faculty organization are designed to combine the theoretical and the applied, the cultural and the functional.

Kingsborough Community College is resolved to undertake only those programs and activities that it can do well and for which unmet needs are clearly demonstrated. It views its role as primarily complementary and initiatory, rather than as competitive and imitative. Academic programs now offered have been instituted as the result of appropriate studies. Similar studies are now under way in conjunction with new programs that are under consideration, and more extensive studies are planned on a continuing basis for the future, both to evaluate what is in progress and to seek out the facts and trends bearing on future developments. The College is interested in identifying in their early stages both the needs of the communities it is designed to serve and, in particular, the emerging trends and needs of the future, and to contribute effectively in the areas of its competence to the meeting of those needs.

Criteria for admission are the same for all candidates for degrees, whatever their ultimate goals may be. Students pursuing the various curricula offered take the same courses in the liberal arts and sciences and mingle in the same sections of all such courses.

The primary commitment of the College is to give all its students, irrespective of the programs they pursue or the sessions they attend (day, evening, or summer), a quality education. The specific goals and
objectives of Kingsborough Community College for its students—to be sought through the formal curriculum and classroom instruction, by way of student-faculty relations and advisory and counseling facilities, and by the extra- and co-curricular programs—are:

1. Mastery of the essential tools of critical and analytical thought and effective self-expression.
2. Development of an abiding interest in study and continuous learning.
3. Knowledge and understanding, in breadth and depth, of American civilization, its heritage and ideals.
4. Knowledge and understanding of the contemporary world—its geography, economics, political forms and ideologies, and cultural differences and similarities.
5. A grasp and understanding of science—its principles and methods, and their implications for the world in which we live.
6. An acquaintance with the arts and an appreciation of esthetics necessary to the fuller understanding and enjoyment of life.
7. Development of an understanding of one's self, and of a sense of social service and responsibility.
8. Achievement of mature personal behavior, and moral and ethical values and ideals.
9. Development of a sound vocational plan directed toward a life occupation commensurate with the student's potential.
10. Acquisition of theoretical background and the skills to successful employment or continued professional preparation.
11. Cultivation of continued spiritual growth.
12. The deepening of insights, broadening of outlook, heightening of motivation, and elevation and refinement of levels of aspiration for themselves and for others, for our country and for the larger world beyond.

Toward these ends, Kingsborough Community College will continue to seek the best in resources, human and physical, and to concentrate its energies on the levels and in the areas of its particular competence.

**CAMPUS FACILITIES**

Kingsborough Community College, at the start of the 1966-67 academic year, was operating in three locations in Brooklyn—its permanent campus site at the eastern end of Manhattan Beach; a temporary location in Mid-Brooklyn, at Clermont and Lafayette Avenues; and a temporary location at 60 West End Avenue, where Kingsborough administers one of the five City University College Centers.
The Manhattan Beach campus comprises a 60-acre site surrounded on three sides by the waters of Sheepshead Bay, Jamaica Bay, and the Atlantic Ocean. Currently, the major facilities in use there are two large classroom buildings, which house also the library, administrative and faculty offices, laboratories, a cafeteria, student counseling facilities, a bookstore, and a health service area.

Other existing buildings are being renovated to provide space for physical education, music, an auditorium area, and student and faculty lounges, as well as additional classroom, office, library, and student activity space.

In the meantime, plans for complete physical development of the Manhattan Beach campus are going forward rapidly and it is expected that the first permanent buildings will be ready for occupancy in 1971.

Kingsborough Community College in Mid-Brooklyn occupies extensive rented quarters in the Masonic Temple at 317 Clermont Avenue. This building will serve as the College's main Mid-Brooklyn location until at least the Summer of 1967. Classrooms of various sizes, an auditorium, a library with stacks and reading facilities, a counselors' office, student dining areas, and faculty and administrative offices are provided in the building.

The City University College Center administered by Kingsborough Community College occupies on lease four stories of the Manhattan Beach Jewish Center at 60 West End Avenue, where the College Center classes in the Liberal Arts, and Physical Education classes for students of the College Center and Kingsborough Community College at Manhattan Beach are conducted.

THE COLLEGE LIBRARIES

The library is one of the major educational facilities at each Kingsborough location. Extensive book and periodical collections are maintained which support the curricular offerings at each location. Augmenting these collections are pamphlets, documents, microforms, U.S. government publications, encyclopedias, directories, and other reference sources. Also available for reference are microfilm editions of the New York Times dating back to 1958.

Professional librarians provide reference service and instruction in the use of library materials. Audio-visual aids are available for both individual use by students and classroom use by instructors.

Many of the volumes in the libraries are available for borrowing by students and instructors, subject to policies and regulations established by the College. In most cases, books are loaned for a period of two weeks and may be renewed for a similar period if no other borrowers are waiting for them.
Current expansion plans call for the renovation of one of the existing buildings on the Manhattan Beach campus primarily for use as a library facility. It is expected that the building, when ready, will have a capacity of 100,000 volumes, as well as increased reading space.

**EVENING STUDIES**

A program of Evening Studies and Continuing Education was inaugurated by Kingsborough Community College in September 1965, as the College entered its second year of operation. Designed to provide part-time college-level study for those in the community who can profit by it, the courses are intended especially to serve the needs of the following:

1. Students enrolled as matriculants who are not able to attend the regular day session.
2. Prospective degree candidates who are not eligible for admission to the day session as full matriculants. Such students may be accepted as non-matriculants in the evening session and can attain matriculant status by satisfying the requirements therefor (see page 52).
3. Adults from the business community who desire credit courses for furtherance of their career growth.
4. Adults who desire courses for cultural and self-improvement purposes.

Credit courses currently being offered in the evening session include subjects in the Liberal Arts and Sciences and in Business that are fundamental both to degree programs and to programs of professional or personal self-improvement.

Matriculated students in the evening session may immediately pursue the regular degree programs of their choice, taking a maximum of nine credits per semester, or they may follow courses of study leading to transfer to a senior college after one, two, or three years.

The instructional staff in the program of Evening Studies and Continuing Education is composed in the main of members of the full-time faculty of the College. Augmenting this staff is a group of qualified professionals with extensive training and experience, and demonstrated competence in their fields.

All evening session classes are held at the Manhattan Beach campus of the College.

**Cultural Studies**

Kingsborough Community College provides, for adult citizens of the community whose love of learning continues but who are not seeking academic credits or degrees, a series of non-credit cultural and general
information courses, conducted by the Office of Evening Studies and Continuing Education. Course offerings include such areas as music, painting, sculpture, literature, modern science, personal fiscal management, and others. The College is planning also cultural activities and events of special interest to the community and seminars in which outstanding representatives from the fields of business, labor, government, and elsewhere will participate as lecturers and discussion leaders.

SUMMER SESSIONS

Kingsborough Community College inaugurated a program of Summer Session courses in 1965, immediately following completion of its first academic year. The program was expanded in 1966 to provide two six-week day sessions and one eight-week evening session.

The Summer Session curriculum is designed primarily for students who were admitted in the previous second semester and who need makeup credits to achieve sophomore status; for those who need make-up credits in order to complete the work for a degree; for non-matriculated students; for those who have been admitted for the following Fall semester; and for students who wish to earn additional credits in order to make room for supplementary courses or to lighten their program loads during the regular school year.

The Summer Sessions are open also to students attending other colleges and universities, provided they obtain official permission from the institutions they regularly attend and have completed the prerequisites for the courses they wish to take.

CONCERN FOR THE INDIVIDUAL STUDENT

In the development of its policies, programs, and procedures, the College centers its attention on the individual student, both as a person and as a scholar. The student's personal needs, interests, and problems are the direct concern of the College's counseling services, augmented by a comprehensive program of co-curricular and social activities (see Student Life, page 41). His academic needs, as well, are met by an established College policy of small class enrollments, by an extensive series of special programs and courses, and by a Faculty Adviser system.

Honors and Independent Study

A program of Honors and Independent Study provides enriched educational experiences for students who meet the criteria for such study. Two types of Honors work are now in progress: one is the provision of special "Honors Sections" of certain courses; the other, designed for students who attend regular sections and who qualify for Honors work,
provides opportunity for them to meet in small groups for additional periods of advanced study. Plans for a third type of Honors program involving primarily independent study are now in progress.

**Special Courses**

For students who need additional help in the academic area, two types of courses are provided. Matriculated day students who are enrolled in regular sections in certain subjects are assigned, in addition, to adjunct non-credit courses in these subjects, especially designed for their needs. For non-matriculants in the evening session, non-credit intensive review courses are offered. In addition, the College has instituted a Mathematics Workshop wherein members of the Mathematics faculty provide individual instruction to students enrolled in regular Mathematics courses at all levels.

**PROGRAMS FOR THE DISADVANTAGED**

President Jacob I. Hartstein, in stating the aims and purposes of Kingsborough Community College at the time of its establishment, said:

"As a community college, Kingsborough is duly aware of its primary responsibility to the community of which it is a part. It will strive, accordingly, to help meet the need to recruit, train, and educate the culturally, socially, or educationally disadvantaged and so help to make equality of opportunity an operational fact of life."

The College implemented this policy without delay.

During its first year of operation, 1964-65, a lecture series under the general title "Operation Intellect," conducted by members of Kingsborough's faculty, was presented at Simon F. Rothschild Junior High School, situated at the periphery of the Bedford-Stuyvesant area in proximity to Kingsborough Community College in Mid-Brooklyn.

Designed especially to expose disadvantaged junior high school students of promise to college instruction and thus stimulate them to seek further knowledge, the program was unique in New York City. A similar lecture series was presented in the College's second year and the program has now been established on an annual basis.

In order to provide maximum benefits, the lectures are also open to the public. Thus parents of the junior high school students, their brothers and sisters, and other adults and young people of the community may attend.

In the Summer of 1965, still in its first year of operation, Kingsborough joined its sister community colleges of the City University of New York as a participant in the College Discovery program sponsored by the City University. The College admitted 114 educationally disadvantaged
students of good potential whose academic records precluded ordinary admission. After a seven-week period of testing and instruction during the Summer at its Mid-Brooklyn location, 104 enrolled at Kingsborough in Fall, 1965 as specially matriculated students.

In the Summer of 1966, the College enrolled 100 new College Discovery students in a program of preparation for Fall matriculation.

Three additional programs for the disadvantaged, unusual in a number of aspects, were introduced at Kingsborough in the Summer and Fall of 1966.

Under a grant from the Office of Economic Opportunity, the College became a participant in the nationwide "Upward Bound" program, which it is conducting with the cooperation of New York City's Board of Education and community agencies in the East New York-Brownsville area of Brooklyn. The project is designed to provide for young people from disadvantaged areas a pre-college preparatory program which will develop their skills and motivate them toward future college study.

Kingsborough was one of approximately 200 colleges to be chosen for the "Upward Bound" project from among some 600 throughout the country that applied. This despite the fact that the College did not meet two preference criteria—that the Colleges be four-year institutions and that they have residential facilities for students.

A fourth program for the disadvantaged—STEP (Student Tutorial Educational Project)—was instituted by Kingsborough in 1966. It provides for the tutoring of grade school and early high school students who are in need of remedial help in reading, writing, and mathematical skills. The tutors are Kingsborough students who plan to enter the teaching profession. They are supervised by members of the College's Faculty. All sessions are conducted on a one-to-one basis, i.e., only one pupil receives instruction from a tutor at any one time, a rare procedure in tutorial work at this level.

Kingsborough became a participant in Operation SEEK (Search for Education, Elevation, and Knowledge) when the program was established by the City University in 1966, and enrolled its first SEEK students in the Fall of that year. The project provides counseling and programs specially tailored to the academic needs of students who, because of poverty, have academic averages below those usually required for admission into degree-granting programs. SEEK students attend the evening session.

The College continues to explore new avenues for making "equality of opportunity an operational fact of life" for the disadvantaged.
Student Life

The student life program at Kingsborough Community College is organized to help students achieve self-understanding and direction so that they may develop their best educational, social, and personal potentials for responsible citizenship and an effective life. The goals of the program are those of the College itself, namely, to provide the finest intellectual training in a framework which highlights the fullest individual and social growth of each student.

The Division of Student Services, under policies determined by the Board of Higher Education, the President, and the Faculty, offers a variety of services, including individual and group counseling, to facilitate the adjustment of the student in the College and in the community. These programs and services span the student’s entire relationship with the College from admission to graduation.

ORIENTATION

Freshman orientation, designed to introduce the student to his new college environment, is provided in several phases and through a variety of procedures.

In the first phase, all students meet in a Welcoming Assembly at which the Faculty and officers of administration are introduced to them. The second phase involves attendance at group orientation and counseling meetings where students are assisted in registration procedures and program planning.

Students who are deemed to need help in the development of good study habits are required to take a course in Effective Study, administered by the Division of Student Services. The course is open also to other students who feel they will benefit substantially thereby, although they may not be required to take it.

Prior to registration, each student is required to take a series of tests which are used for guidance purposes.

COUNSELING SERVICES

Individual interviews, including interpretation and analysis of guidance tests, are used to assist students in understanding their own aptitudes and interests and in learning more about the educational and vocational avenues open to them. Students are also invited to discuss with counselors questions pertaining to program planning, personal problems, employment, financial aid, remedial assistance, health, and any other matters of concern to them.
When advisable, consultation with other College and community agencies is recommended to those students in need of specialized professional services.

FACULTY ADVISER SYSTEM

In addition to the counseling program of the Division of Student Services, the College has established a Faculty Adviser system which provides an expanded range of counseling services, as well as a personal mentor for each student.

The role of the Faculty Adviser is primarily in the area of curricular counseling and assistance in program planning, where he can effectively employ his knowledge of educational objectives, programs, and opportunities. All members of the Kingsborough faculty participate in the program.

STUDENT ACTIVITIES

As part of the education of its students, Kingsborough Community College is concerned with providing opportunities for their growth in character, social skills, and leadership, and for their healthy and happy living as students. Both informal recreation and special programs are supervised by the Coordinator of Student Activities with the cooperation of the Office of the Dean of Students and student committees.

The College encourages both Faculty and student participation in the formulation of policies regarding student activities and campus regulations. Two bodies—the Faculty Committee on Student Life and the Faculty-Student Sub-Committee on Student Life—have been established for this purpose. They meet regularly and prepare recommendations to the Administration on such matters as student government, requirements for holding office in student organizations, campus attire, scheduling of student functions, social and recreational programs and facilities, etc.

Student activities include student government, departmental clubs, athletics, religious groups, student publications, social groups, and others. In an effort to stimulate co-curricular activities and to encourage wide participation, the College makes available to students and staff two blocks of hours, on Tuesday and Thursday from 11:30 to 1:30 o'clock, during which few classes are scheduled. The teaching staff shares in many student activities, as faculty advisers of clubs, directors of musical and theatrical productions, and in other capacities.

42
SPORTS

Club participation, recreational activities, and intramural tournaments are conducted by the Physical Education faculty of the College. The intramural philosophy is based upon the concept that students should have freedom of choice, equality of opportunity, and responsibility for planning and administering the program.

The College inaugurated a program of intercollegiate sports activity during the 1965-66 season with men's and women's basketball, baseball, women's volleyball, and fencing. As the facilities and the staff increase, the College will expand its intercollegiate athletic competition according to student interest.

HEALTH SERVICES

The Health Office provides services which are essentially preventive and advisory. A registered nurse is in charge to administer first aid and to care for minor illnesses. College physicians are also available when their services are needed.

Any illness or accident incurred during school hours or enroute to the College should be reported immediately to the Health Office.

All entering students are required to submit a Health-Medical form (see page 49).

PLACEMENT PROGRAM

Counselors in the placement program interview undergraduates and graduates who are interested in employment. Guidance in job-seeking techniques, information as to openings, career day conferences, and referral to employers are included in this program. The collection of current occupational and career information, and instruction in its use, is a significant part of the work of the placement program.

STUDENT HANDBOOK

A handbook is published as a reference book for incoming freshmen and as a guide to student life and student activities at the College. It supplements information found in the catalog regarding extra-curricular activities and contains information which will be helpful throughout the student's stay at the College.

Students are urged to read this publication carefully, not only upon admission to the College, but from time to time as they progress through their programs of studies. Every student is expected to be thoroughly familiar with the information and regulations appearing in the Handbook.
Fees

TUITION

Educational costs for matriculated students in community colleges of the State University of New York are calculated at an average of $900 a year per student, with the State, the local community, and the student each bearing one-third of the total. In the case of units of the City University of New York, however, of which Kingsborough Community College is one, the City provides the student’s share of the cost as well as that of the local community, for qualified residents of the City. The tuition fees at Kingsborough, according to residency and program schedule, are as follows:

Per Semester

Full-time* fully matriculated day students
Legal residents of New York City .............. No tuition
Legal residents of New York State,
outside New York City ...................... 150
All others ........................................ 300

Evening Session students

Matriculants, per contact hour* .............. 10
Non-matriculants, per contact hour* .......... 15
Non-credit cultural courses ................. As shown in Evening Session bulletin

Summer Session students

Matriculants, per contact hour* .............. 10
Non-matriculants, per contact hour* .......... 15

---

a. A full-time student is one who is carrying 12 or more credits during a given semester.
b. Students attending the College on a tuition-free basis may take no more than three credits above the number normally specified for the programs they are pursuing. Tuition fees of $15 per contact hour will be charged for credits in excess of three above the prescribed number. (The normal prescription is indicated at the end of each program of studies on pages 65 through 80.) A student who has already received an Associate degree from any college of the City University either wholly or partially tuition-free is required to pay $150 tuition per semester. A student who has changed his degree objective more than once is required to pay $150 tuition per semester.
c. Based on the number of 50-minute sessions a class meets per week; for example, if a class meets for three sessions per week, or their equivalent, the semester fee is $30 for matriculants, $45 for non-matriculants.
OTHER FEES

Application for Admission (payable once by every student applying for admission to the College)* $ 4

General Fee (per semester)
  Full-time day students ........................................... 30
  Evening and Summer Session students ....................... 13

Late Registration ......................................................... 5
Change of Program ........................................................ 5
Transcript of Record (after the first, which is provided without charge) ....................... 1

All fees are due and payable at the time of registration. Payment should be made by check or money order only, payable to: Kingsborough Community College.

REFUNDS OF FEES

Refunds of tuition and general fees will be made, under certain conditions, to students who withdraw from the College or from Evening or Summer Session courses, according to the following schedules:

<table>
<thead>
<tr>
<th></th>
<th>Summer Session</th>
<th>Summer Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Non-Military</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawal before scheduled opening date of session</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Withdrawal within one week after opening</td>
<td>75%</td>
<td>50%</td>
</tr>
<tr>
<td>Withdrawal during second week after opening</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>Withdrawal during third week after opening</td>
<td>25%</td>
<td>None</td>
</tr>
<tr>
<td>Withdrawal after completion of third week</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

A full 100% refund of tuition, non-instructional, and general fees will be made in the event that courses are cancelled by the College or a student’s registration is cancelled by the College.

II. Military

Refunds of tuition and other fees (except application fees) will be made, under certain conditions, to students entering military service. The conditions are as follows:

*Every student applying for matriculation to any unit of the City University of New York applies through the University Application Processing Center. Forms are available at local high schools. The required fee must accompany the application. A bank check or money order, payable to the City University of New York, is the only acceptable instrument; personal checks are not acceptable.
1. Entry into military service must be documented with induction papers or military orders.

2. No refund will be made to a student who has been assigned a grade, regardless of whether the grade is passing or failing. A grade will be assigned if the student has attended 13 or more weeks of a day or evening session, or 5 or more weeks of a summer session.

3. If the student has not attended for a sufficient time to qualify for a grade but continues to within two weeks of induction, fees will be refunded as follows:

   Withdrawal before the beginning of the fifth calendar week after the scheduled opening date of a day or evening semester, or before the third week of a summer session—100%; withdrawal thereafter—50%.

4. This schedule applies in all cases in which the student’s withdrawal is voluntary. In the event that a course or courses are cancelled by the College, or the student’s registration is cancelled by the College, a full 100% refund will be made of tuition, non-instructional and general fees.

Financial Aids

Many forms of financial assistance are available to students of Kingsborough Community College, through programs administered by the College itself or by other agencies. The purpose of these programs is to assure that no student, otherwise qualified, is denied the opportunity for higher education because of financial need. Among the financial assistance programs available are the following:

I. Scholarships

   a. New York State Regents Scholarships—$250 to $350 a year depending on family income.

   b. New York State Scholar Incentive Program—Matriculated students who are New York City residents are not eligible to receive Scholar Incentive awards, since they do not pay tuition. Other students may inquire as to their eligibility for Incentive awards.

   c. Agency Scholarships—Various religious, fraternal, and community agencies, and business and industrial firms provide scholarship assistance for which Kingsborough Community College students may be eligible.
II. Loans

a. New York Higher Education Assistance Corporation (NYHEAC) — no interest charges while the student is in attendance at college, 3% a year after graduation or termination of study. Maximum amounts available range from $187.50 per semester for first-year part-time students to $1,000.00 a year for second-year full-time students.

b. National Defense Education Act—a maximum of $1,000.00 per academic year, with interest payments of 3% a year starting one year after graduation or termination of study.

c. Kingsborough Community College Emergency Grant and Loan Fund—The College maintains a fund to enable students to borrow amounts up to $50 to meet emergencies, such as costs of books, college supplies, and personal needs.

III. Work Study Opportunities

a. Higher Education Act, 1965—permits students to work up to 15 hours per week when attending classes, up to 40 hours a week during other periods, at approximately $1.50 per hour.

b. Vocational Education Act—designed for students pursuing career curricula; up to 15 hours a week when classes are in session, at an average rate of $1.50 an hour, up to a maximum of $45.00 in any one month or $350.00 in any academic year.

c. Part-time Employment—The Division of Student Services maintains a placement service which assigns a limited number of students to employment on campus as student aides and assists others in finding off-campus part-time employment compatible with the student’s program, interests, and abilities.
Admission

This bulletin presents information regarding admission requirements as of the date of publication. It does not preclude the possibility of subsequent changes resulting from action by the Board of Higher Education, the City University of New York, the State University of New York, or the Administration of Kingsborough Community College. Any such changes will be included in supplements to and later editions of this bulletin.

ADMISSION PROCEDURES

The admissions program of the College is administered by the Office of the Registrar. Inquiries regarding admission should be directed to that office.

Applications for admission as matriculated students by those currently in high school or by high school graduates who have not attended college, are processed by the University Application Processing Center, Box 148 Vanderveer Station, Brooklyn, N. Y. 11210. Application forms may be obtained from the Center or from local high schools. Other students should apply directly to the College on application forms provided therefor.

Applications are evaluated according to the quality of the student's high school record and his scores on the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board.*

Applicants who have attended other institutions subsequent to graduation from high school must have copies provided of their records at such institutions, whether presented for credit or not and including records of incomplete work, in addition to their high school records. All records are to be sent to Kingsborough Community College by the respective institutions attended, and are not returnable to the student.

Applicants who are accepted receive notice by mail to appear for orientation meetings, at which time detailed information regarding registration procedures is provided.

Deadline dates for submittal of applications are indicated in the Calendar of the Admissions Program, on page 9 of this bulletin.

*Students are admitted to the career programs in Business on the basis of the high school average in designated subjects. Remaining spaces are filled on the basis of composite scores derived from the high school average and SAT results. However, all students applying for career programs in Business are urged to take the SAT for guidance purposes.
REQUIREMENTS FOR MATRICULATION

Applicants for admission to the freshman class as fully matriculated candidates for Associate degrees must meet the following requirements:

1. Graduation from an accredited four-year high school or possession of a New York State High School Equivalency Diploma.

2. Satisfactory completion of the required numbers of units in various high school subjects, according to the degree program to be followed. These requirements are indicated below.

3. Evidence of ability to do satisfactory college-level work, as demonstrated by the high school record and, where required, the SAT scores. Applicants for September admission must take the SAT the preceding December or January; for February admission, the preceding May. Applications for the Scholastic Aptitude Test may be obtained from the high school guidance office or the College Entrance Examination Board, Box 592, Princeton, N. J. 08540.

Upon acceptance, all students are required to take a series of tests for guidance purposes, which are administered at Kingsborough Community College.

RESIDENCE

There are no residence restrictions for matriculation or attendance at Kingsborough Community College. Matriculants who are qualified residents of New York City and are carrying full programs (12 or more credits) attend the College tuition-free. All others are required to pay tuition fees in accordance with the schedule on page 44.

HEALTH

A health statement from the student's personal physician, on a standard form provided by the College (including a report of a chest x-ray taken within 12 months), must be filed by each applicant accepted. The College reserves the right to reject an applicant because of an existing health condition, if the College medical officer deems such action necessary in the best interest of the student and the College. Re-examination by the College physician is required for students requesting exemption from Physical Education for medical reasons.

Every student (or, if he is under 21 years old, his parent or legal guardian) is required to sign an authorization for release of his medical records to properly qualified personnel or agencies of the College.
ADMISSION TO DEGREE PROGRAMS

Applicants are listed preferentially according to a composite score derived by a formula combining SAT* scores with high school averages. They are accepted, in order of merit, in accordance with the number of places available. The high school average is based on grades for at least 16 units in creditable academic courses. Modified courses are not acceptable.

One entrance unit is allowed for satisfactory completion of one year's work, four or five periods a week, in a course requiring outside preparation. If there is little or no preparation involved, one-half unit is allowed.

Foreign language work is credited in units only, for each year of each language. A semester's work in a foreign language carries no admission credit. Credits in different languages may not be combined. For example, one year of Spanish and one year of French represent one unit in each and not "two years of a foreign language." Similarly, where three units of a foreign language are required, they must be three years of one language.

Science courses are credited by units representing one year's work in each science. A single semester's work in a science is not acceptable for admission credit.

Mathematics credits are granted as follows: elementary algebra (9th Year Mathematics), one unit; plane geometry (10th Year Mathematics), one unit; 11th Year Mathematics, one-half unit for a one-semester course, or one unit for a one-year course. No credit is allowed for completion of only one semester of a one-year course.

Entrance credits may also be granted on the basis of College Entrance Examination Board achievement tests, New York State Regents examinations, or examinations given at Kingsborough in specific subjects.

*See footnote, page 48.
Following are the entrance requirements for specific degree programs:

**ASSOCIATE IN ARTS (A.A.)**

AND

**ASSOCIATE IN SCIENCE (A.S.)**

<table>
<thead>
<tr>
<th>Prescribed Units</th>
<th>Elective Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong></td>
<td>Regular academic subjects in:</td>
</tr>
<tr>
<td></td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>Social Studies</td>
</tr>
<tr>
<td></td>
<td>Mathematics</td>
</tr>
<tr>
<td></td>
<td>Science</td>
</tr>
<tr>
<td></td>
<td>Foreign Language*</td>
</tr>
<tr>
<td></td>
<td>Any other subjects</td>
</tr>
<tr>
<td></td>
<td>credited in a</td>
</tr>
<tr>
<td></td>
<td>recognized high school</td>
</tr>
<tr>
<td></td>
<td>. . . . . . . . . . . . . . . . . . . 0 to 3</td>
</tr>
<tr>
<td></td>
<td>. . . . . . . . . . . . . . . . . . . 4</td>
</tr>
<tr>
<td><strong>Elective Units</strong></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

**ASSOCIATE IN APPLIED SCIENCE (A.A.S.)**

<table>
<thead>
<tr>
<th>Prescribed Units</th>
<th>Elective Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong></td>
<td>Academic</td>
</tr>
<tr>
<td>4</td>
<td>0 to 7</td>
</tr>
<tr>
<td><strong>American History</strong></td>
<td>Other</td>
</tr>
<tr>
<td>1</td>
<td>0 to 7</td>
</tr>
<tr>
<td><strong>Mathematics (including</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Elementary Algebra</strong></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Social Science</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

**ADMISSION WITH CONDITIONS**

An applicant presenting 15 units for admission, with a minimum of 10 in the prescribed units category for the Associate in Arts (A.A.) or the Associate in Science (A.S.) degree, or 7 prescribed units for the Associate in Applied Science (A.A.S.) degree, may be admitted, but must complete all entrance requirements satisfactorily within one year of admission. (Courses which are taken to satisfy entrance requirements do not earn college credit.) Failure to remove entrance conditions within the specified time may result in either loss of status as a matriculant or dismissal from the College, as conditions may warrant.

*This may be either further study in the language offered to satisfy the prescribed unit requirement, or a year or more of another language.

+Two units of Science (preferably Biology and Chemistry) are prescribed for enrollment in the A.A.S. degree program in Nursing; the prescribed unit total for admission to this program, therefore, is 10 and the elective unit total 6.
ADMISSION WITH ADVANCED STANDING

A candidate for admission to advanced standing may receive up to 30 credits for courses completed at other institutions, provided that:
1. The content of such courses meets the standards established by Kingsborough Community College;
2. The courses have been completed with grades of C or higher*; and
3. Statements of honorable dismissal from the other institutions are presented.

Advanced standing may be granted also for credits earned by way of New York State College Proficiency Examinations.

The State Education Department, in cooperation with colleges and universities throughout the State, has established a program of examinations whereby individuals who have developed college-level competencies outside formal classroom study can demonstrate such competencies by examination and receive course credit. Such examinations are now available in 30 subjects.

Kingsborough Community College participates in the College Proficiency Examination Program and grants course credit to students who pass the examinations in accordance with College policy.

Further information on the CPE program at Kingsborough may be obtained from the Office of the Dean of Students. Information on the State-wide program in general can be received by writing to: College Proficiency Examination Program, State Education Department, Albany, N. Y. 12224.

ADMISSION TO NON-MATRICULANT STATUS

Students may be admitted as non-matriculants, provided they are not regularly enrolled high school students, by presenting:

1. Transcripts of high school and college records from all institutions previously attended.
2. Evidence of adequate preparation for the specific courses involved.

Non-matriculants are admitted to the Evening and Summer Sessions only (see page 36).

CHANGES IN STATUS OR CURRICULUM

A non-matriculated student who has removed all entrance conditions may gain matriculated status by satisfying one of the following requirements:

*While acceptable transfer credits are counted toward fulfillment of graduation requirements, they are not taken into account in the computation of scholastic averages.
1. Nine credits with an average of 3.0.
2. Twelve credits with an average of 2.5.
3. Eighteen credits with an average of 2.0.

NOTE: Credits offered for a change in status from non-matriculant to matriculant must include a minimum of one course in English and one in Foreign Language, Mathematics, Science or Social Science.

Students desiring to change from one curriculum to another (for example, from Business to Liberal Arts) must have completed a minimum of 12 credits appropriate to the new curriculum and must have a cumulative grade-point average of 2.5. A student attending the College tuition-free may change his degree objective not more than once in order to remain on a tuition-free basis.

All requests for changes in status or curriculum must be submitted to the Division of Student Services for counseling evaluation and recommendation.

WITHDRAWAL FROM A COURSE

Students who for any reason wish to withdraw from a course prior to the conclusion of a semester must initiate the withdrawal process by formal application filed in the Division of Student Services. If the student is granted permission to withdraw after an interview with a counselor, the counselor’s recommendation is sent to the Office of the Registrar, where the procedure is completed.

Application for withdrawal must be submitted immediately after the last day the student has attended class, if it has not already been submitted, and before the official start of mid-term examinations. Failure to observe the formal procedure for withdrawal may result in a failing grade in the course.

WITHDRAWAL FROM THE COLLEGE

A student who wishes to withdraw from the College is required to arrange for an interview with a counselor in the Division of Student Services. After the student has completed the appropriate forms, received the consent of a parent or guardian, and obtained clearance from the Library and Fiscal Office regarding any financial obligations, a referral form is forwarded to the Registrar’s Office with the recommendation of the counselor.

The opportunity for readmission to the College or transfer to another institution may be jeopardized if the stipulated procedure is not followed.
READMISSION

Students previously in attendance at Kingsborough who seek readmission should apply to the Registrar's Office in April for registration in the Fall semester, or in November for registration in the Spring semester. Acceptance is based on a reevaluation of the student's performance and aims, and available places. A personal interview may be required.

TRANSFER TO A SENIOR COLLEGE

Students in the Associate in Arts (A.A.) or an Associate in Science (A.S.) program may, after one semester or more of an approved, well-balanced course of study, be accepted as candidates for the bachelor's degree in a senior college of the City University. Requirements of the individual colleges may vary in some respects, but in general completion of one of the following will be specified (students should inquire at the colleges they wish to attend for complete transfer information):

1. 14 to 29 credits, excluding Physical Education, with an index of 3.0 (B average) or higher.
2. 30 to 59 credits, excluding Physical Education, with an index of 2.75 (B minus average) or higher.
3. 60 to 64 credits, excluding Physical Education, with an index of 2.5 (C plus average) or higher; or with an index of 2.0 (C average) with probationary status.

Matriculants in the Associate in Applied Science (A.A.S.) programs in Accounting and Business Administration may, after one year or more of an approved course of study, be accepted with advanced standing as candidates for the Bachelor of Business Administration (B.B.A.) degree at the Bernard M. Baruch School of The City College if they have attained a scholastic average of B (3.0) or higher.
Scholarship Requirements

Kingsborough Community College assumes that every student entering the College is committed to taking full advantage of the opportunities it provides for a quality education.

In setting forth the guidelines for those seeking the degrees of Associate in Arts (A.A.), Associate in Applied Science (A.A.S.), and Associate in Science (A.S.), the College is concerned not so much with penalties for failure as with helping to mark the road toward a college experience that will be a firm foundation for a future career.

The most important signpost on the road is this: Every student has the responsibility to familiarize himself thoroughly with the requirements for graduation; with the rules relating to grades, good academic standing, and academic honors and distinctions; with the rules governing attendance; and with all regulations affecting academic progress as announced in the Catalog, the Student Handbook, and other official publications.

Special requests and petitions relating to academic standing should be addressed to the Office of the Dean of Faculty.

ATTENDANCE

Every student is required to attend all classes and laboratories for which he is scheduled. Instructors file with the Registrar’s Office official reports of student attendance. There are no excused absences, as such. Any student who misses a class or laboratory session for reasons beyond his control such as illness must file a statement of the reasons for such absence, as soon as possible after the absence occurs, in the Office of the Dean of Faculty (or in the Office of the Director of Kingsborough Community College in Mid-Brooklyn, or the Coordinator of the City University College Center, in the case of students in attendance in those locations).

Students whose total absences and latenesses (brief latenesses count as half absences) exceed the number of hours a course is scheduled to meet per week, are considered to have incurred excessive absence. Students whose total absences and latenesses equal twice the number of hours a course is scheduled to meet per week may be dropped from the course or from the College.
REQUIREMENTS FOR GOOD STANDING

Students who maintain an over-all average of C are considered to be in good academic standing. The average of C (expressed as 2.0 in terms of the scholastic index or grade point average) must be maintained cumulatively (that is, on the basis of all grades since matriculation) and is also required for the most recent complete semester.

The records of students are reviewed at the end of each semester. As a result of such review students not in good standing may be (a) placed on probation; (b) given a reduced program or other curriculum change, with or without probation; or (c) suspended or dropped from the College.

HONORS

Students who earn an average of B (3.0) are eligible for the Dean’s List for the semester in which this superior record is achieved. The list is announced regularly. Attainment of the Dean’s list becomes a part of the student’s permanent record and appears on all transcripts of record.

Eligibility for the Dean’s List is open to regularly matriculated students carrying programs of not less than 15 hours.

MID-TERM REPORTS

At mid-term, notices are sent to students who are doing poorly. The grades used for these reports are D (lowest passing grade) and F (failure).

GRADING

A grade represents an instructor’s evaluation of the quality of work done by a student in an entire course, on certain parts of a course such as laboratory work or recitations, or on specific projects such as term papers and examinations.

The most important thing is not the grade but the work the grade represents. Nevertheless, grades are the measure of how well a student is doing at any given time. They deserve careful attention, either as evidence of good progress or as reminders of the need for counseling, for increased effort, or both.
STANDARD GRADES

The student receives an official grade at the end of a semester for each course, which becomes a part of the permanent record. The standard grades are:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Level of Achievement</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 90-100</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B 80-89</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C 70-79</td>
<td>Fair or average</td>
<td>2</td>
</tr>
<tr>
<td>D 60-69</td>
<td>Below average but passing</td>
<td>1</td>
</tr>
<tr>
<td>F Below 60</td>
<td>Failure</td>
<td>0</td>
</tr>
</tbody>
</table>

The Grade Point Average (also called the “Index” or “Scholastic Index”) is obtained by multiplying the Grade Points by the number of credits for the course, then totaling the Grade Points and dividing by total credits. For example:

<table>
<thead>
<tr>
<th>Course</th>
<th>Grade</th>
<th>Credits</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>A (4)</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>French</td>
<td>D (1)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>History</td>
<td>F (0)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Music</td>
<td>C (2)</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Physics</td>
<td>B (3)</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>34</strong></td>
</tr>
</tbody>
</table>

Grade Point Average (34 divided by 16) = 2.13, just above C.

SPECIAL GRADES

Certain symbols are used in the student’s record to indicate situations which cannot be appropriately reflected by the five letter grades identified above.

These symbols are:

- **G** Unauthorized withdrawal by the student
- **H** Dropped for excessive absence
- **J** Withdrawal with permission; no grade or penalty
- **K** Satisfactory completion of a non-credit course (removing an entrance condition)
- **L** Excessive absences; no credit
- **P** Passed, but course not counted in computing scholastic index
- **Abs** Absent from final examination; entitled to make-up
- **Abs(F)** Absent from final examination; not entitled to make-up
- **Inc** Incomplete; work must be completed within a specified time; if not completed, grade F is given
- **X** Course being taken currently
Academic Organization

Kingsborough Community College requires every student to pursue simultaneously a prescribed program of general education and professional preparation, irrespective of the degree for which he may be a candidate. To fulfill its commitment to provide a quality education for all, the College offers a core of subjects which all students follow as the foundation on which their educational programs are built. Beyond these core studies, offerings are provided in various career and pre-professional concentrations, along with a well-balanced list of elective courses.

Courses and curricula, thus, are designed to integrate knowledge and its applications; to combine the theoretical and the useful, the cultural and the functional. In like manner the faculty is organized not in the traditional and relatively isolated departments but in a limited number of comprehensive Divisions which bring together both teachers and courses in a harmonious pattern of related fields of study.

The entire academic organization is structured to facilitate cooperation among the various disciplines, and to promote effectively the aims and purposes of the College. Following, in condensed form, is basic information relating to the Divisions; a complete listing of course descriptions begins on page 82.

Division I. Language, Literature, and the Arts.
Subjects: Art, English, Foreign Languages, Music, Speech.

Division II. Mathematics and the Sciences
Subjects: Biology, Chemistry, Computer Science, Data Processing, Mathematics, Physics, Science.

Division III. Behavioral and Social Sciences

Division IV. Health Science, Health and Physical Education
Subjects: Health Education, Nursing, Physical Education.

Division V. The Library

Division VI. Student Services
Degree Programs

Kingsborough Community College offers the Associate in Arts (A.A.) program at both the Mid-Brooklyn and Manhattan Beach locations. The Associate in Applied Science (A.A.S.) and Associate in Science (A.S.) programs are offered at Manhattan Beach. Upon establishment by the City University of New York of the City University College Center at 60 West End Avenue in the Fall of 1966, under Kingsborough’s administration, a Liberal Arts program was inaugurated in that location.

Students in all programs follow courses of study designed to provide a sound general education and a carefully developed program of occupational or pre-professional education.

Candidates for the Associate in Arts (A.A.) degree concentrate their study in the fields of Language, Literature, and the Arts; Mathematics and the Sciences; the Behavioral and Social Sciences; and Health and Physical Education. Candidates for the Associate in Science (A.S.) degree follow programs which closely parallel the A.A. program, but with heavier concentration in the Mathematics or Science areas in which they plan to major.

Candidates for the Associate in Applied Science (A.A.S.) degree follow programs in which, in addition to the core of general education requirements, there is concentration in the applied field. The professional fields in which programs are offered currently include Accounting, Banking, Business Administration, Data Processing, Industrial and Labor Relations, Insurance, Nursing, Real Estate, Retail Business Management, and Secretarial Science. The Secretarial Science program offers three options: Executive Secretary, Legal Secretary, and School Secretary.

New programs leading to the A.A.S. degree will be introduced in the near future.

The Business programs are well adapted both for those who look toward continuation of their professional studies at senior colleges and for those whose needs will be met by a two-year program which will qualify them to enter directly into responsible and productive careers immediately upon receiving their degrees.

Graduates of the Insurance, Nursing, and Real Estate programs are eligible to take the New York State licensing examinations in their respective fields.

It is important that the student plan his studies each semester with careful attention to the requirements of the degree program in which he is enrolled, and of the senior college to which he may be planning to transfer.
Courses of Study

Arts: The courses in Art and Music seek to orient students in those elements of the history and appreciation of these arts that are deemed essential for the cultured person and to prepare the student for continued pursuit of these interests. Extensive use is made of the numerous off-campus resources available in the New York metropolitan area, and in Brooklyn in particular.

English: The courses in English integrate writing and literature. Particular attention is given to coordination of the work in English and the work in Social Science to assure the most effective development of the student's breadth of knowledge, depth of understanding, perspective, and insight. Appropriate provision is made for exceptional students.

Health and Physical Education: The prescribed course in Health Education is concerned with mental as well as physical health. The program in Physical Education concentrates on physical fitness; team sports; individual activities; dance or aquatics, or an acceptable substitute activity, in the first, second, third, and fourth semesters respectively.

Special Physical Education classes are conducted for students whose physical activity must be limited because of temporary or permanent disabilities. The instructors work closely with the students and design for each individual a program of activity and skill development which he is capable of undertaking. All instructors in the program are experienced in corrective therapy and modified physical education. Every full-time Kingsborough student is required to participate in the regular or the modified physical education program, unless it is certified by a physician that his condition requires exemption from all physical education activity. A note giving permission to participate is required of those enrolling in Modified Physical Education classes.

Mathematics: In the case of Associate in Arts (A.A.) and Associate in Science (A.S.) candidates, the courses in Mathematics are differentiated in accordance with students' previous preparation and their educational or career objectives.

Those pursuing an Associate in Applied Science (A.A.S.) program in Business are required to complete one semester's work appropriate to the area of specialization. Mathematics is not required of Nursing students, provided they have fulfilled entrance requirements in that subject.

In addition to the formal courses, a Mathematics Workshop is conducted by the Mathematics faculty for students who may require additional assistance with their course work. Regularly scheduled hours are established each semester at each location of the College during which students may receive supplementary instruction.

Modern Foreign Languages: Courses in French and Spanish are now offered, with instruction in additional languages to be added as the
College grows and expands. Hebrew, Italian, and possibly Russian are under consideration as further language offerings. Students have the option of continuing the language studied in high school or beginning a new language.

Orientation: In addition to the Orientation Program (page 41), in which all students are required to participate and for which no credit is allowed, there is available to those for whom it is considered appropriate a one-semester, one-hour-a-week course in Effective Study.

Science: A minimum of one year of Science is required of every student, depending on the degree program being followed. At least one semester must be in a science not studied in high school. Among the offerings are introductory courses in Biology, Chemistry, Earth Science, and Physics, and a course in the History and Philosophy of Science, which are designed specifically for students who do not plan to major in science or an allied field. Students also have the opportunity to take the usual sequences in the laboratory sciences. Students with advanced work of quality in the biological or physical sciences in high school may be admitted directly to advanced courses in laboratory sciences in the College.

Social Science: The first year's course in Social Science deals thoroughly and comprehensively with American Civilization. The second year's course covers the Contemporary World—its cultures, economics, geography, governmental forms, and international relations. Use is made of the rich off-campus resources available in New York City to enhance the quality and meaningfulness of the courses. Students in the Associate in Arts (A.A.) program are required to take both courses. Those in the various Associate in Applied Science (A.A.S.) and Associate in Science (A.S.) programs must take one of these courses, with the other available as an elective.

Speech: Speech 21, Oral Communication, is a required course in some of the degree programs. Additional elective courses are available. All students are required to take a speech test at the time of their first registration in the College, and corrective non-credit courses are given for those deemed to need them.

Additional Courses and Electives: Students in the Associate in Arts (A.A.) program have the opportunity to select their additional work in the Arts and Sciences with the assistance of the Division of Student Services and faculty advisers. Selections are made in consideration of the student's total preparation and educational records and his personal professional needs, as well as his plans and special interests. Students in Associate in Applied Science (A.A.S.) and Associate in Science (A.S.) programs pursue, in addition to the core subjects outlined, subjects in their fields of specialization. Each program in the Business field
includes appropriate Field Experience in connection with which students can master in real life situations the methods and techniques of careers for which they are preparing. These field experiences usually provide also the opportunity to earn while learning.

**REQUIREMENTS FOR GRADUATION**

Kingsborough Community College, under the authority of the Board of Regents of the State of New York, grants the degree of Associate in Arts (A.A.), Associate in Applied Science (A.A.S.), or Associate in Science (A.S.) upon satisfactory completion by the student of one of the approved two-year programs of the College. In addition, the student must be recommended for graduation by the Faculty following establishment of an overall average of not less than C (equivalent to 2.0 on the Scholastic Index); must be cleared by the Fiscal Office and the Library with respect to obligations to these agencies; and must be in good standing with respect to deportment.

Following are the minimum course and credit requirements for the various programs:

**Associate in Arts (A.A.)**

Total Credits: 64, of which 48 must be in the Liberal Arts and Sciences (exclusive of credits earned in Health and Physical Education).

Courses:

- **Art:** 2 credits
- **English:** 12 credits
- **Foreign Language:** Students who have completed four years of a foreign language in high school, or who can demonstrate by examination equivalent competence in a language taught at Kingsborough Community College, are exempt from further foreign language study; all others must either continue with the language studied in high school or complete two years of another language in college. Students with only one year of foreign language are advised to begin with French 11 or Spanish 11.
- **Health Education:** 2 credits
- **Mathematics:** 3 credits, depending on high school preparation and educational objective.
- **Music:** 2 credits
- **Physical Education:** 2 credits
Science: 8 credits
Social Science: 12 credits

Additional courses to make a total of 48 credits in the Liberal Arts and Sciences, exclusive of those earned in Health and Physical Education. Free electives to make a total of 64 credits.

**Associate in Applied Science (A.A.S.)**

Following are the minimum course and credit requirements for the programs in Business (consult the complete two-year curriculum in Nursing, page 72, for requirements in that program):

Total Credits: 68, except for School Secretary program, where the credit requirement is 69.

Courses:
- Accounting: 6 credits
- Art: 2 credits
- Economics: 3 credits
- English: 6 credits
- Foreign Language: Students in the transfer program in Business Administration who have no language credits are required to complete 6 credits of one language; those with one year of high school language study are required to complete 3 credits; those with two years or more of high school language credits are exempt from further language study. There are no foreign language requirements for students in other A.A.S. programs.
- Health Education: 2 credits
- Mathematics: 3 credits
- Music: 2 credits
- Physical Education: 2 credits
- Science: 4 credits, except that students in the transfer program in Business Administration are required to complete 8 credits in Science.
- Social Science: 6 credits
- Speech: 2 credits

Courses in the field of specialization, as required for the program being followed, and free electives to make a total of the number of credits required for the Associate in Applied Science (A.A.S.) degree.
Associate in Science (A.S.)

Programs leading to the A.S. degree are designed for students who plan to transfer to a senior college and to major in Mathematics or Science. Kingsborough Community College currently offers A.S. programs in Biology, Chemistry, Computer Science, Mathematics, and Physics. Following are the minimum course and credit requirements for all five programs. Additional course requirements for the individual programs are indicated in the complete two-year program outlines on pages 78 and 79.

Total Credits: 69.

Courses:

- **Art:** 2 credits
- **English:** 6 credits

**Foreign Language:** Students who have completed four years of foreign language study in high school, or who can demonstrate by examination equivalent competence in a language taught at Kingsborough Community College, are exempt from further language study; all others must either continue with the language studied in high school or complete two years of another language.

- **Health Education:** 2 credits
- **Laboratory Science:** 8 credits
- **Mathematics:** 8 credits
- **Music:** 2 credits
- **Physical Education:** 2 credits
- **Social Science:** 6 credits
- **Speech:** 2 credits

Additional Mathematics and/or Science electives to meet the credit requirements in the field of specialization, and additional free electives to meet the credit requirements for the Associate in Science (A.S.) degree.
### Curricula

**ASSOCIATE IN ARTS (A.A.)**

Recommended Program in the Liberal Arts and Sciences

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester Credit</th>
<th>Second Semester Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art/Music</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics&lt;sup&gt;b&lt;/sup&gt;</td>
<td>3-4</td>
<td>3-4</td>
</tr>
<tr>
<td>Social Science 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15 1/2-16 1/2</strong></td>
<td><strong>15 1/2-16 1/2</strong></td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester Credit</th>
<th>Second Semester Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 31, 32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Electives&lt;sup&gt;c&lt;/sup&gt;</td>
<td>6</td>
<td>6-7</td>
</tr>
<tr>
<td>Science&lt;sup&gt;d&lt;/sup&gt;</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Social Science 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16 1/2</strong></td>
<td><strong>16 1/2-17 1/2</strong></td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 64; maximum credits which a student may take on a tuition-free basis are 67.

<sup>a</sup> The Foreign Language requirement is based upon work successfully completed in high school and performance on placement tests. Students who have completed the language requirement may substitute another required or elective course.

<sup>b</sup> The minimum Mathematics requirement is three credits. The course(s) selected will depend upon the student's educational objectives. Generally selections are made from among MATH 10, 14, or 15-16. Students who do not elect Mathematics beyond the minimum requirements may substitute another required or elective course in the second semester.

<sup>c</sup> In planning electives, students should keep in mind that not less than 48 credits must be earned in the Liberal Arts and Sciences, exclusive of Health and Physical Education.

<sup>d</sup> Two semesters from among the following Science courses are required of students whose career and study objectives fall outside the area of Science: Science 33, 34, 35, 36. College requirements are met by two courses, provided that at least one course does not duplicate subject areas studied in high school. Students may also select a one-year sequence from among the following: Biology 11-12, Biology 13-14, Chemistry 11-12, Physics 11-12.
### ASSOCIATE IN APPLIED SCIENCE (A.A.S.)

**Recommended Program in Accounting**

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art/Music</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Business Administration 11, 12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Economics 12</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 11 or 12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Speech 21</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td><strong>15 1/2</strong></td>
<td><strong>17 1/2</strong></td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 31, 32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 33, 34</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 92</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Science 31-32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td><strong>17 1/2</strong></td>
<td><strong>17 1/2</strong></td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.
# ASSOCIATE IN APPLIED SCIENCE (A.A.S.)

## Recommended Program in Banking

### FIRST YEAR

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Banking 14</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Business Administration 11, 12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Economics 12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Mathematics(^a)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Music</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>(\frac{1}{2})</td>
<td>(\frac{1}{2})</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>16(\frac{1}{2})</td>
<td>17(\frac{1}{2})</td>
</tr>
</tbody>
</table>

### SECOND YEAR

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking 32, 34</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Banking 35</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Banking 92</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>3-4</td>
<td>5-6</td>
</tr>
<tr>
<td>Science 31-32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Speech 21</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>(\frac{1}{2})</td>
<td>(\frac{1}{2})</td>
</tr>
<tr>
<td></td>
<td>16(\frac{1}{2})-17(\frac{1}{2})</td>
<td>16(\frac{1}{2})-17(\frac{1}{2})</td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.

---

\(^a\) Choice of Mathematics course will depend on previous preparation.
ASSOCIATE IN APPLIED SCIENCE (A.A.S.)
Recommended Transfer Program in Business Administration

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Business Administration 11, 14</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Economics 12</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language(^a)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 10</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16(\frac{1}{2})</td>
<td>16(\frac{1}{2})</td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art/Music</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Business Administration 12</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
<td>5-6</td>
</tr>
<tr>
<td>Psychology 11</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Science(^b)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Speech 21</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17(\frac{1}{2})</td>
<td>17(\frac{1}{2})-18(\frac{1}{2})</td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.

---

\(a\). The Foreign Language requirement is based upon work completed in high school and performance on language placement tests. Students who have previously satisfied the language requirement may substitute appropriate electives in the Liberal Arts and Sciences.

\(b\). Two semesters from among the following courses satisfy the requirements: Science 33, 34, 35, 36, provided that at least one course does not duplicate subject areas studied in high school. Students may also select a one-year sequence from among the following: Biology 11-12, Biology 13-14, Chemistry 11-12, Physics 11-12.
# ASSOCIATE IN APPLIED SCIENCE (A.A.S.)

Recommended Program in Data Processing

## FIRST YEAR

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester Credit</th>
<th>Second Semester Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Business Administration 11, 12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 11-12</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics 10</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Speech 21</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td></td>
<td>17 1/2</td>
<td>16 1/2</td>
</tr>
</tbody>
</table>

## SECOND YEAR

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester Credit</th>
<th>Second Semester Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 31, 32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 33 or 34</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Art</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Computer Science 31-32</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Music</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Science 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td></td>
<td>16 1/2</td>
<td>17 1/2</td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.
ASSOCIATE IN APPLIED SCIENCE (A.A.S.)
Recommended Program in Industrial and Labor Relations

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester Credit</th>
<th>Second Semester Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Business Administration 11, 12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Economics 12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Industrial and Labor Relations 12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics^a</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
</tbody>
</table>
| **Total credits required for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>3-4</td>
<td>5-6</td>
</tr>
<tr>
<td>Industrial and Labor Relations 31</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Industrial and Labor Relations 33, 34</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Industrial and Labor Relations 92</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Science 31-32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Speech 21</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
</tbody>
</table>
| **Total credits for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.**

---

^a. Choice of Mathematics course depends on previous preparation: MATH 11 or 12 is recommended.
ASSOCIATE IN APPLIED SCIENCE (A.A.S.)

Recommended Program in Insurance

Satisfactory completion of this course of study qualifies the student for the New York State licensing examination.a

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Business Administration 11, 12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Economics 12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Mathematicsb</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Speech 21</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>$1/2$</td>
<td>$1/2$</td>
</tr>
<tr>
<td></td>
<td><strong>16 1/2</strong></td>
<td><strong>16 1/2</strong></td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Insurance 31, 32c</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Insurance 33, 34</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Insurance 92</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Science 31-32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>$1/2$</td>
<td>$1/2$</td>
</tr>
<tr>
<td></td>
<td><strong>17 1/2</strong></td>
<td><strong>17 1/2</strong></td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.

---

a. Students employed by insurance agencies may qualify to take the agent’s examination at the age of 18; the broker’s license examination may be taken at 21.

b. Choice of Mathematics course depends on previous preparation; MATH 11 or 12 is recommended.

c. These courses are required for the New York State Insurance Brokerage examination.
# ASSOCIATE IN APPLIED SCIENCE (A.A.S.)

Recommended Program in Nursing

### FIRST YEAR

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Biology 11-12</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Nursing 11, 12</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Psychology 11, 32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16 1/2</td>
<td>16 1/2</td>
</tr>
</tbody>
</table>

### SECOND YEAR

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology 51</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Nursing 31, 32</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Sociology 31</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18 1/2</td>
<td>15 1/2-16 1/2</td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 67; maximum credits which a student may take on a tuition-free basis are 70.
ASSOCIATE IN APPLIED SCIENCE (A.A.S.)

Recommended Program in Real Estate

Satisfactory completion of this course of study qualifies the student for the New York State licensing examination for Real Estate Broker.a

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Business Administration 11, 12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Economics 12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Mathematicsb</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Speech 21</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td></td>
<td><strong>16 1/2</strong></td>
<td><strong>16 1/2</strong></td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 31, 32c</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 33, 34</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate 92</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Science 31-32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td></td>
<td><strong>17 1/2</strong></td>
<td><strong>17 1/2</strong></td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.

---

a. Students employed by real estate brokers may qualify to take the New York State examination for real estate salesman at age 18; the broker's license examination may be taken at 21.

b. Choice of Mathematics course depends on previous preparation; MATH 11 or 12 is recommended.

c. These courses are required for the New York State Real Estate Brokerage examination.
ASSOCIATE IN APPLIED SCIENCE (A.A.S.)
Recommended Program in Retail Business Management

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art or Music</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Business Administration 11, 12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Business Administration 14</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Economics 12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Math 11 or 12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Speech 21</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td><strong>16 1/2</strong></td>
<td><strong>17 1/2</strong></td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music or Art</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Retailing 31</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Retailing 33, 34</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Retailing 35</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Retailing 92</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Science 31-32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td><strong>17 1/2</strong></td>
<td><strong>16 1/2</strong></td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.
**ASSOCIATE IN APPLIED SCIENCE (A.A.S.)**

**Recommended Program in Secretarial Science**

**Executive Secretarial Option**

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art/Music</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Business Administration 11</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Economics 12</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 11 or 12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Secretarial Science 12(^a)</td>
<td>a</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 14(^a)</td>
<td>a</td>
<td>2</td>
</tr>
<tr>
<td>Speech 21</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td></td>
<td><strong>17(^1/2)</strong></td>
<td><strong>16(^1/2)</strong></td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Administration 33</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Science 31-32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 31, 32</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Secretarial Science 33, 34</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 92a</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td></td>
<td><strong>17(^1/2)</strong></td>
<td><strong>16(^1/2)</strong></td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.

\(^a\) Depending upon completion of at least one year of shorthand and typing in high school. Students who have had no previous instruction will take Secretarial Science 11 and 13 the first semester and defer Art and Speech to the second year.
ASSOCIATE IN APPLIED SCIENCE (A.A.S.)
Recommended Program in Secretarial Science
Legal Secretarial Option

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art/Music</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Business Administration 11</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Economics 12</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 11 or 12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Secretarial Science 12&lt;sup&gt;a&lt;/sup&gt;</td>
<td>a</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 14&lt;sup&gt;a&lt;/sup&gt;</td>
<td>a</td>
<td>2</td>
</tr>
<tr>
<td>Speech 21</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td></td>
<td><strong>17 1/2</strong></td>
<td><strong>16 1/2</strong></td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Administration 33</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Science 31-32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 31</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Secretarial Science 33, 34</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 51, 52</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Secretarial Science 92b</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td></td>
<td><strong>17 1/2</strong></td>
<td><strong>16 1/2</strong></td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 68; maximum credits which a student may take on a tuition-free basis are 71.

---

<sup>a</sup> Depending upon completion of at least one year of shorthand and typing-writing in high school. Students who have had no previous instruction will take Secretarial Science 11 and 13 in the first semester and defer Art and Speech to the second year.
### ASSOCIATE IN APPLIED SCIENCE (A.A.S.)

**Recommended Program in Secretarial Science**

*School Secretarial Option*

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester Credit</th>
<th>Second Semester Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art/Music</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Business Administration 11</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Economics 12</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 11 or 12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Secretarial Science 12&lt;sup&gt;a&lt;/sup&gt;</td>
<td>a</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 14&lt;sup&gt;a&lt;/sup&gt;</td>
<td>a</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 55</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Speech</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
</tbody>
</table>

**Total credits required for completion of the program are 69; maximum credits which a student may take on a tuition-free basis are 72.**

#### SECOND YEAR

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester Credit</th>
<th>Second Semester Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Administration 33</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Science 31-32</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 31, 32</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Secretarial Science 33, 34</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 53, 54</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Science 92c</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
</tbody>
</table>

**Total credits required for completion of the program are 69; maximum credits which a student may take on a tuition-free basis are 72.**

---

<sup>a</sup> Depending upon completion of at least one year of shorthand and typing in high school. Students who have had no previous instruction will take Secretarial Science 11 and 13 in the first semester and defer Art and Speech to the second year.
**ASSOCIATE IN SCIENCE (A.S.)**  
**Recommended Program in Computer Science**

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 11-12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Computer Science 11-12</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Foreign Language(^a)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Mathematics 17-18(^b)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>(\frac{1}{2})</td>
<td>(\frac{1}{2})</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17(\frac{1}{2})</td>
<td>16(\frac{1}{2})</td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science 33-34</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Mathematics Elective</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Science Elective</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Speech 21</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>(\frac{1}{2})</td>
<td>(\frac{1}{2})</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17(\frac{1}{2})</td>
<td>17(\frac{1}{2})</td>
</tr>
</tbody>
</table>

Total credits required for completion of the program are 69; maximum credits which a student may take on a tuition-free basis are 72.

---

\(^a\) Students who have completed the Foreign Language requirement may substitute another required or elective course.

\(^b\) Students who have not had 12th Year Mathematics must take MATH 14, then continue with MATH 15-16.
### ASSOCIATE IN SCIENCE (A.S.)

#### Program in Mathematics and Science\(^a\)

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art/Music</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language(^b)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory Science</td>
<td>4-5</td>
<td>4-5</td>
</tr>
<tr>
<td>Mathematics 15-16 or 17-18</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
</tbody>
</table>

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
</tr>
<tr>
<td>Art/Music</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language(^b)</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory Science</td>
<td>4-5</td>
</tr>
<tr>
<td>Mathematics 15-16 or 17-18</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
</tr>
</tbody>
</table>

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
</tr>
<tr>
<td>Art/Music</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language(^b)</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory Science</td>
<td>4-5</td>
</tr>
<tr>
<td>Mathematics 15-16 or 17-18</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
</tr>
</tbody>
</table>

**Total Credits Required for Completion of the Program are 69; Maximum Credits Which a Student May Take on a Tuition-Free Basis are 72.**

---

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>3</td>
<td>4-6</td>
</tr>
<tr>
<td>Mathematics and Science Electives</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Speech 21</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
<td>1/2</td>
</tr>
</tbody>
</table>

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics and Science Electives</td>
<td>8</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
</tr>
<tr>
<td>Speech 21</td>
<td>2</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 21, 22</td>
<td>1/2</td>
</tr>
</tbody>
</table>

**Total Credits Required for Completion of the Program are 69; Maximum Credits Which a Student May Take on a Tuition-Free Basis are 72.**

---

\(^a\) This basic program for the Associate in Science (A.S.) degree will be adapted to the various areas of specialization as follows:

**Biology:** Substantial revision is required to accommodate a year of Biology and Chemistry in the first year: Art/Music are deferred to the second year; Biology 21-22 is taken as a Math/Science elective in the second year; remaining elective credits in the second year should be used for Chemistry 31-32 Organic Chemistry (10 credits), or Math 55 Differential Equations (3 credits) and Math 56 Linear Algebra (3 credits).

**Chemistry:** Chemistry 11-12 should be selected as the laboratory science in the first year. In the second year Chemistry 31-32 Organic Chemistry (10 credits) and Physics 11-12 General Physics (10 credits) would be chosen as electives.

**Mathematics:** Physics 11-12 General Physics (10 credits) should be selected as the laboratory science in the first year. In the second year Math 55 Differential Equations (3 credits) and Math 57 Calculus IIIb (4 credits) should be selected in the first semester, and Math 56 Linear Algebra (3 credits) and Math 58 Calculus IVb (4 credits) in the second semester.

**Physics:** Physics 11-12 General Physics (10 credits) should be selected as the laboratory science in the first year. In the second year Chemistry 11-12 General Chemistry (8 credits), an additional 8 credits of Physics electives, and Math 55 Differential Equations (3 credits) and Math 56 Linear Algebra (3 credits) should be chosen as Math/Science and free electives.

\(^b\) Students who have completed the foreign language requirement may substitute another required or elective course.
### Recommended Program in Liberal Arts

<table>
<thead>
<tr>
<th>Subject</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1-2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art/Music/Speech (2 of these)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics[^a]</td>
<td>3-4</td>
<td>3-4</td>
</tr>
<tr>
<td>Social Science 11-12 or 31-32</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Health Education 1-2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 1, 2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td></td>
<td><strong>15 1/2-16 1/2</strong></td>
<td><strong>15 1/2-16 1/2</strong></td>
</tr>
</tbody>
</table>

\[^a\] Students who plan to concentrate in Mathematics or Science are advised to select MATH 15-16. Other students may select MATH 10 during the first semester, and a Liberal Arts elective the second semester.

\[^b\] Students should plan a program of 32 to 34 credits for the year. Those who carry 15 1/2 credits in the first semester should add one or two courses from among Art, Music, and Speech in the second semester. In special circumstances individual students may be permitted to take a Laboratory Science or Accounting at the Manhattan Beach campus in the first semester.
Course Offerings

Courses required of all students, and usually in the first year, are numbered 1 to 10. Other first-year courses (some of which are required of students in certain programs, but not of all students) are numbered 11 to 20.

Courses required of all students, and usually in the second year, are numbered 21 to 30. Other second-year courses (some of which are required of students in certain programs) are numbered 31 to 40.

Elective courses are numbered 50 to 90. Unless otherwise specified, these courses are open only to students who have satisfactorily completed the applicable prerequisites.

Field Experience and Honors courses are numbered 91 to 100.

Courses which bear hyphenated numbers are one-year sequential courses. Credit will not be allowed for completion of only one semester of such courses.

Courses which are usually given in the Fall semester have odd numbers; those usually given in the Spring, even numbers. The designation “Fall or Spring” in the course description applies to one-semester courses which are offered in both semesters or two-semester courses which may be started in either semester. Courses carrying the “Fall and Spring” designation are one-year sequential courses the first semester of which is taken in the Fall, the second semester in the Spring.

A prerequisite is a course that must be taken before another related course. A corequisite is a course that must be taken before or simultaneously with another related course.

It is the responsibility of the student to comply with the regulations regarding prerequisite and corequisite courses, which are noted in the following schedule of course offerings.

NOTE: Certain of the courses in the following listing bear numbers which are different from those given in the previous College catalog. The course titles, however, remain unchanged. Alterations in numbers are noted.

ACCOUNTING

ACCT 11-12 FUNDAMENTALS OF ACCOUNTING FALL and SPRING 6 CREDITS FOR YEAR

An introduction to the books of account, their purpose and use; preparation of simple financial statements; the simple worksheet; payroll preparation and taxation. A completed set of practice books is required.
In the second semester partnership and corporate financial transactions are covered; a completed partnership practice set is required.

4 hours per week

**ACCT 31 INTERMEDIATE ACCOUNTING I FALL 3 CREDITS**

Review of the work sheet as an accountant's basic tool. Accounting concepts and conventions are applied to corporate organization and management. Special emphasis on problems relating to capital stock, retained earnings, balance sheet classifications, and inventory measurements. Each item affecting working capital is analyzed, including preparation of the statement of application of funds.

Prerequisite: ACCT 12

3 hours per week

**ACCT 32 INTERMEDIATE ACCOUNTING II SPRING 3 CREDITS**

A complete study of tangible, intangible, and fixed assets, and non-current liabilities. Comparative data and ratio are used to analyze and interpret financial statements. The impact of recent developments in accounting theory on financial statements and business management is discussed and illustrated.

Prerequisite: ACCT 31

3 hours per week

**ACCT 33 COST AND MANAGERIAL ACCOUNTING FALL 3 CREDITS**

Detailed study of managerial cost accounting for material, labor, and overhead, applied to manufacturing and selling. Preparation of production reports and financial statements from a coordinated job cost system as a tool for managerial decision-making. A completed job order cost system is required.

Prerequisite: ACCT 12

3 hours per week

**ACCT 34 INCOME TAXATION FALL or SPRING 3 CREDITS**

A study of the prevailing Federal and New York State income tax laws and regulations: concepts of taxable, gross, and net income, and deductions and exemptions as applied to various classes of individual taxpayers. Preparation of individual income tax returns on government forms is required.

Prerequisite: ACCT 12

3 hours per week

**ACCT 35 ANALYZING FINANCIAL STATEMENTS FALL 3 CREDITS**

(Listed also as BKG 35)

An introduction to practical problems in statement analysis. Details of the balance sheet; significance and value of ratios, trends, proportions, and internal and external comparisons. Analysis of working capital, receivables and inventories, trial balances, consolidated statements, budgets, and projections.

Prerequisite: ACCT 12

3 hours per week
ACCT 92 FIELD EXPERIENCE IN ACCOUNTING SPRING 3 CREDITS
Eight hours a week of supervised field experience in accounting records. An hour each week is devoted to classroom lecture and discussion of experience in the field related to accounting theory.
Prerequisite: ACCT 33 9 hours per week

ART

ART 31 (formerly 21) INTRODUCTION TO THE VISUAL ARTS FALL or SPRING 2 CREDITS
Esthetic problems in the visual arts. Basic orientation to painting, sculpture, and architecture, and relationships among the visual arts.
2 hours per week

ART 32 HISTORY OF ART SPRING 2 CREDITS
Art from pre-history through the 19th Century. Salient periods covered are ancient Egyptian, Greek and Roman, Medieval, Renaissance, Baroque, Neo-Classic, and 19th Century.
2 hours per week

BANKING

BKG 14 MONEY AND BANKING SPRING 3 CREDITS
(Listed also as ECO 14)
The nature of money, the monetary system, monetary standards, commercial and non-commercial banking institutions and operations. Money and banking in relation to prices and economic growth.
Prerequisites: ECO 12 and BA 11 3 hours per week

BKG 32 PRINCIPLES OF FINANCE FALL or SPRING 3 CREDITS
(Listed also as ECO 32)
Problems involved in determining the type of business, the raising and use of funds, including promotion, financial plans and activities, expansion, merger, consolidation, reorganization, and bankruptcy.
Prerequisite: ECO 12 3 hours per week

BKG 34 INVESTMENTS SPRING 3 CREDITS
(Listed also as ECO 34)
Detailed analysis of the investment market, investment institutions, and security exchanges. Methods of investment analysis.
Prerequisite: BKG 32 3 hours per week
BKG 35 ANALYZING FINANCIAL STATEMENTS  FALL  3 CREDITS
(Listed also as ACCT 35)
An introduction to practical problems in statement analysis. Details of the balance sheet; significance and value of ratios, trends, proportions, and internal and external comparisons. Analysis of working capital, receivables and inventories, trial balances, consolidated statements, budgets, and projections.
Prerequisite: ACCT 12  
3 hours per week

BKG 92 FIELD EXPERIENCE IN BANKING  SPRING  3 CREDITS
Eight hours a week of supervised field experience in banking. An hour each week is devoted to classroom lecture and discussion of experience in the field related to banking theory.
Prerequisite: BKG 32  
Corequisite: BKG 34  
9 hours per week

BIOLOGY

BIO 11-12 PRINCIPLES OF BIOLOGY  FALL and SPRING  8 CREDITS FOR YEAR
Fundamental biological principles, including basic chemistry and structure, tissue, organs and organ systems, with special emphasis on human anatomy and physiology. Recommended for non-biology majors.
6 hours per week: 
3 lecture/recitation, 3 laboratory

BIO 13-14 GENERAL BIOLOGY  FALL and SPRING  8 CREDITS FOR YEAR
An introductory course for students intending to continue their education in the scientific fields. Fundamental concepts as typified by a study of the mammalian form, with particular reference to man, and representative examples of the higher plants. Emphasis on evolutionary principles as manifest through a study of the basic concepts of genetics, embryology, ecology, taxonomy, and comparative anatomy.
Corequisite: CHEM 11-12  
6 hours per week: 
3 lecture/recitation, 3 laboratory

BIO 21-22 COMPARATIVE ANATOMY AND EMBRYOLOGY  FALL and SPRING  8 CREDITS FOR YEAR
An integrated study of fundamental processes such as fertilization, growth, differentiation and development underlying the early embryology and adult structures of the vertebrates. Emphasis on the frog, chick, pig, Necturus, dogfish, and cat, and the evolution of adult structures in these forms.
6 hours per week: 
Prerequisite: BIO 14  
3 lecture/recitation, 3 laboratory
BIO 51 MICROBIOLOGY FALL 4 CREDITS
The principles and practices of microbiology, including: history of microbiology; pure culture techniques; microorganisms and their environments (water, milk, food, sewage, etc.); physical and chemical factors affecting growth; immunology; epidemiology; and the relationship between man and the microbiological world.
Prerequisite: BIO 12 or 14
6 hours per week:
3 lecture/recitation, 3 laboratory

BIO 52 MARINE BIOLOGY SPRING 3 CREDITS
The interrelationships between various environmental factors (physical, chemical, and biological) and the distribution and physiology of selected marine organisms. Special attention is given to ecological techniques and taxonomic methods. Field trips supplement laboratory work.
Prerequisites: BIO 14 and CHEM 12
5 hours per week:
2 recitation, 3 laboratory

BIO 53 TERRESTRIAL BIOLOGY FALL 3 CREDITS
Representative terrestrial invertebrates and vertebrates in relation to their respective habitats. Emphasis is placed on development of the concept of the ecological niche. Field trips serve to demonstrate ecological techniques. Laboratory procedures include morphological as well as taxonomic studies.
Prerequisites: BIO 14 and CHEM 12
5 hours per week:
2 recitation, 3 laboratory

BUSINESS ADMINISTRATION

BA 11 BUSINESS MANAGEMENT FALL or SPRING AND ORGANIZATION 3 CREDITS
The business firm in terms of its environment and functional requirements. Analysis of planning problems and the structure of decision-making for policy and action. The strategy and behavior of organizations; division of labor; flow of authority; delegation and communication. The focus is on enterprise types; management functions; operations; and the leadership role, in an integrated framework of principles and concepts.
3 hours per week

BA 12 BUSINESS LAW FALL or SPRING 3 CREDITS
A survey of the American legal system; the essential principles of the law of business contracts and its relationship to typical business situations. Appropriate New York State cases and recent decisions are studied.
3 hours per week
BA 14 PRINCIPLES OF MARKETING         FALL or SPRING         3 CREDITS
The principles and practices, from the marketing concept, of the dis-
tribution process. Areas of study are: product; pricing; promotion;
channels of distribution; market research; governmental regulation.
The course is designed to enable consideration of marketing strategy
from a customer point of view.
Prerequisite: BA 11                       3 hours per week

BA 31 PERSONNEL ADMINISTRATION          FALL         3 CREDITS
Methods and procedures used by business management in the selection,
development, maintenance, and utilization of an efficient work force.
Among the areas studied are: human relations; job evaluation; wage
and salary administration; sources of labor supply; interviewing and
counseling; training; testing; transfers and promotions; union relations.
Prerequisite: BA 11                       3 hours per week

BA 33 BUSINESS COMMUNICATION            FALL or SPRING  3 CREDITS
The elements of business correspondence, including the writing of let-
ters, reports, memoranda, sales letters. Emphasis is placed on semantics,
clarity, and the application of tact and business psychology to the
managerial environment.                             3 hours per week

BA 52 ADVERTISING: THEORY AND PRACTICE    SPRING         3 CREDITS
A basic course in the field of advertising and its role in business. The
areas of media, copy, research, layout, production, direct mail, and
campaign strategy are introduced.
Corequisite: BA 14                                3 hours per week

BA 92 FIELD EXPERIENCE IN                 SPRING         3 CREDITS
BUSINESS ADMINISTRATION
Coordinated and supervised practical work experience in Business Ad-
ministration. The student has the opportunity to gain insight into the
various technical phases of the work and the organization in which he
is employed. Students are required to complete workbooks describing
major phases of the organizations to which they are assigned. Eight
hours per week in the field, one hour of classroom discussion.
Prerequisites: BA 14 and BA 31                  9 hours per week

CHEMISTRY                                 
CHEM 11-12 GENERAL CHEMISTRY               FALL and SPRING  8 CREDITS
CHEMISTRY                                 FOR YEAR
Chemical principles in terms of states of matter, gas laws, kinetic theory,
chemical combination, atomic theory, chemical equations and stoichi-
ometry, properties of selected elements and compounds. The periodic

table, bonding, atomic structure, redox equations, electrolytic theory.

6 hours per week:
3 lecture/recitation, 3 laboratory

CHEM 31-32 ORGANIC CHEMISTRY FALL and SPRING 10 CREDITS FOR YEAR

Bonding, resonance and reaction mechanism theory; aliphatic and aromatic
organic compounds; stereochemistry and functional groups. Introduction
to physical chemistry, qualitative organic analysis, and ionic
reactions.
Prerequisites: CHEM 12 and MATH 16 or 18

9 hours per week:
3 lecture/recitation, 6 laboratory

CHEM 52 QUANTITATIVE INORGANIC ANALYSIS

FALL or SPRING 4 CREDITS

Principles, procedures, and techniques of classical chemical analysis.
Topics include chemical equilibrium, acid-base neutralization, titration
curves, solution properties, and an introduction to the theory and use
of instrumental methods in modern analytical chemistry.
Prerequisite: CHEM 12

8 hours per week:
2 lecture/recitation, 6 laboratory

COMPUTER SCIENCE

COMP SCI 11-12 COMPUTER SCIENCE I AND II

FALL and SPRING 8 CREDITS FOR YEAR

A thorough introduction to numerical analysis, including the operation
of a desk calculator, approximation, probability theory, statistical ana-
lysis, interactive techniques, solution of equations and systems of equa-
tions, curve-fitting, linear programming, and an introduction to Finite
Differences.

6 hours per week:
Corequisite: MATH 10 or 15-16
3 lecture, 3 laboratory

COMP SCI 31-32 DATA PROCESSING FALL and SPRING 10 CREDITS FOR YEAR

I AND II

A thorough introduction to data processing, including the handling of
unit record equipment and the programming of a stored-program elec-
tronic computer (IBM 360) for business, using assembly and program-
oriented languages (COBOL).
Prerequisites: COMP SCI 11-12, ACCT 11-12, BA 11

9 hours per week:
Corequisites: ACCT 31 and 32
3 lecture, 6 laboratory
COMP SCI 33-34 COMPUTER SCIENCE FALL and SPRING 10 CREDITS
III AND IV FOR YEAR
The handling of peripheral equipment and the programming of a stored-program electronic computer (IBM 360) for science and mathematics, using assembly and program-oriented languages (FORTRAN).
Prerequisite: MATH 17-18
9 hours per week:

COMP SCI 51-52 INTRODUCTION TO PROGRAMMING FALL and SPRING 6 CREDITS FOR YEAR
A short course in programming, including the essentials of numerical analysis, operation of a desk calculator and FORTRAN and/or COBOL. Intended as a free elective for those who wish to use computing as a tool.
Prerequisite: MATH 10 or 14
5 hours per week:

COUNSELING
COUN 01 EDUCATION AND CAREER PLANNING FALL or SPRING NO CREDIT
Designed for students who have not yet defined their educational and career objectives. The course, given by members of the counseling faculty, systematically surveys educational and career opportunities. Evaluation of test results and group guidance are other phases covered. Primarily for non-matriculants and students in special programs.
2 hours per week

ECONOMICS
ECO 12 FUNDAMENTALS OF ECONOMICS FALL or SPRING 3 CREDITS
Principles of economics, with emphasis on the nature of economic institutions and theories and their significance in contemporary society. The application of techniques of analysis to economic problems, including such topics as value, price, and distribution. A study of competitive and monopolistic markets.
3 hours per week
ECO 14 MONEY AND BANKING SPRING 3 CREDITS
(Listed also as BKG 14)
The nature of money, the monetary system, monetary standards, commercial and non-commercial banking institutions and operations. Money and banking in relation to prices and economic growth.
Prerequisites: ECO 12 and BA 11
3 hours per week
ECO 32  PRINCIPLES OF FINANCE     FALL and SPRING     3 CREDITS
(Extracted also as BKG 32)
Problems involved in determining the organization of a business enterprise, the raising and use of funds, including promotion, financial plans and activities, expansion, merger, consolidation, reorganization, and bankruptcy.
Prerequisite: ECO 12
3 hours per week

ECO 34  INVESTMENTS     SPRING     3 CREDITS
(Extracted also as BKG 34)
Detailed analysis of the investment market, investment institutions, and security exchanges. Methods of investment analysis.
Prerequisite: ECO 32
3 hours per week

EDUCATION

EDU 32  HUMAN GROWTH AND DEVELOPMENT     SPRING     3 CREDITS
(Extracted also as PSYCH 32)
The sequential nature of development from infancy through childhood, adolescence and adulthood, in reference to intellectual growth, personal and social adjustment, and vocational and recreational interests. The relationship between physical and mental development; typical problems in various stages of the life-cycle.
Prerequisite: PSYCH 11
3 hours per week

EDU 33  EDUCATION IN MODERN SOCIETY     FALL     3 CREDITS
The study of educational processes in relation to contemporary society. Cultural forces and institutions helping to shape education, and some resulting issues and problems. The school as an institution of education, its guiding theories and basic practices. The role of the teacher. Pertinent references to education in other countries.
Prerequisite: Sophomore standing
3 hours per week

ENGLISH

ENG 01  PATTERNS OF WRITTEN ENGLISH
FALL or SPRING     NO CREDIT
An adjunct non-credit course for students selected from credit course classes in English. Emphasis is on the mechanics of writing and the basic requisites of style.
3 hours per week
ENG 02 ANALYTICAL READING  FALL or SPRING  NO CREDIT
An adjunct non-credit course for students from credit course classes in English. Emphasis is on reading accuracy, comprehension, and speed.

3 hours per week

ENG 03 ENGLISH AS A SECOND LANGUAGE  FALL or SPRING  NO CREDIT
An adjunct non-credit course for students selected from credit course classes in English. The more important elements of English structure and pronunciation are reviewed, with special attention to the needs of students whose native language is not English.

1 to 3 hours per week

ENG 05 INTENSIVE REVIEW IN WRITTEN ENGLISH  FALL or SPRING  NO CREDIT
A positive approach to those aspects of American English most significant in the translation of speech into writing. The course permits maximum practice in basic syntax, structure, and punctuation. Primarily for non-matriculants and students in special programs, and open to others who may profit from such review.

3 hours per week

ENG 06 INTENSIVE REVIEW IN READING  FALL or SPRING  NO CREDIT
A selection of American and English prose and poetry with emphasis on the development of reading accuracy, comprehension, and speed. Primarily for non-matriculants and students in special programs, and open to others who may profit from such review.

3 hours per week

ENG 07 INTENSIVE REVIEW IN ORAL ENGLISH  FALL or SPRING  NO CREDIT
Especially designed for students who have learned to speak English as a second language. Primarily for non-matriculants and students in special programs, and open to others who may profit from such review.

3 hours per week

ENG 1-2 AMERICAN AND ENGLISH LITERATURE AND WRITING  FALL and SPRING  6 CREDITS FOR YEAR
Significant authors and writings with particular emphasis on classics which have influenced American civilization. Thorough training in effective written expression, in conjunction with the literature studied. Preparation and criticism of weekly themes, with increasing concentration upon the development of individual style and expression.

3 hours per week
ENG 31 (formerly 21) WORLD LITERATURE AND WRITING I
FALL 3 CREDITS
Readings in classic Western literatures, the sources of our culture: the Bible, Homer, the Greek dramatists, Thucydides, Plato, Aristotle, Vergil. Frequent themes to improve written expression skills are required.
Prerequisite: ENG 2
3 hours per week

ENG 32 WORLD LITERATURE AND WRITING II SPRING 3 CREDITS
Readings in European and non-Western literature from Dante to the 19th Century. The focus is on classics related to the enrichment of modern cultural patterns. Frequent themes to improve written expression skills are required.
Prerequisite: ENG 2
3 hours per week

ENG 51 SURVEY OF ENGLISH LITERATURE SPRING 3 CREDITS
Readings in selected major works of English literature from Chaucer to Swift. A term paper is required.
Prerequisite: ENG 2
3 hours per week

ENG 52 SURVEY OF AMERICAN LITERATURE FALL 3 CREDITS
Readings in selected major works of American literature, emphasizing the 19th and 20th Centuries. A term paper is required.
Prerequisite: ENG 2
3 hours per week

FRENCH

FR 11 ELEMENTARY FRENCH I FALL or SPRING 3 CREDITS
An introduction to the French language as a medium of communication: grammar, composition, conversation, and oral and written drill.
4 hours per week:
3 lecture/recitation, 1 laboratory

FR 12 ELEMENTARY FRENCH II FALL or SPRING 3 CREDITS
A continuation of FR 11, with increased emphasis on organic use of French, supplemented by the reading of texts of graduated difficulty. Comprehension and conversational skills are stressed.
Prerequisite: FR 11 or equivalent
4 hours per week:
3 lecture/recitation, 1 laboratory

FR 13 INTERMEDIATE FRENCH FALL or SPRING 3 CREDITS
Progressive development of oral and writing skills upon the foundations established in Elementary French. Intensive review supplemented by
practice in writing and speaking, and by readings in modern French literature.  

**FR 14 HISTORY AND CIVILIZATION**  
**FALL or SPRING**  
**3 CREDITS**  
An over-all chronological presentation of material indicating major trends and developments to the present. Examination of political, literary, and artistic movements, highlighting important individuals, ideas, and periods. Selected readings of texts representative of each period. Continued laboratory practice is optional.  
Prerequisite: FR 13 or equivalent  

**FR 51 SURVEY OF FRENCH LITERATURE**  
**FALL or SPRING**  
**3 CREDITS**  
Advanced study of French literature from selected writings of representative authors and analysis of literary values. Instruction is entirely in French after the first month; fine points of grammar are explained. Written and oral reports are required.  
Prerequisite: FR 13 or equivalent  

**FR 53 FRENCH LITERATURE**  
**OF THE 20TH CENTURY**  
**FALL**  
**3 CREDITS**  
The significant forms of 20th Century literature, with particular focus on the major poets, playwrights, and novelists. Conducted entirely in French on an advanced level, employing explication du texte, composition, and discussion.  
Prerequisite: FR 51  

**FR 54 FRENCH LITERATURE**  
**OF THE 19TH CENTURY**  
**SPRING**  
**3 CREDITS**  
A study of selected authors: Stendhal, Balzac, Flaubert, Baudelaire, and Hugo. Emphasis on developing improved written expression and critical appreciation. Explication du texte, composition, and discussion.  
Prerequisite: FR 51  

**FR 56 ADVANCED FRENCH GRAMMAR,**  
**SPRING**  
**3 CREDITS**  
**COMPOSITION, AND CONVERSATION**  
For students wishing further work at an advanced level, through analysis of grammar, reading, and discussion. Emphasis on conversation and the development of oral and written linguistic ability.  
Prerequisite: FR 14 or equivalent
HEALTH EDUCATION

HE 1-2 FOUNDATIONS OF HEALTH FALL and SPRING 2 CREDITS
FOR YEAR

A scientific approach to physical, emotional, and social well-being. Consideration of the functions of the body, disease prevention, personal health practices, reproduction, mental health and emotional adaptations, and the contemporary health concerns of college students and adults.

1 hour per week

HE 52 MARRIAGE AND FAMILY LIVING SPRING 2 CREDITS
The role of the family in satisfying human needs and transmitting the social heritage. Human relations in dating, courtship, mate selection, marriage, and parenthood are examined in the context of contemporary American society.
Prerequisite: HE 2

2 hours per week

HISTORY

HIST 51 THE ANCIENT AND MEDIEVAL WORLD FALL 3 CREDITS
The origins of civilization and the emergence of the great cultures of the Near and Far East: the religious, social, economic, and political ideas and institutions of Mesopotamia, Egypt, the Hebrews, India, China, Greece, and Rome which shaped Western civilization; the transition from ancient to Medieval civilization; the rise of Islam and the cultural, political, and economic contributions of the Middle Ages to Western society.
Corequisite: SOC SC1 11-12 or 31-32

3 hours per week

HIST 52 WESTERN CIVILIZATION: SPRING 3 CREDITS
16th THROUGH 19th CENTURIES
Economic, political, and cultural foundations of modern society including the expansion of Europe; commercial rivalry and settlement of the new world; the dissolution of Christian unity and the Wars of Religion; the Scientific Revolution and enlightenment; the evolution of nationalism, democracy, and imperialism, and the Industrial Revolution; the national and liberal upheavals of the 18th and 19th Centuries, and the unification of modern national states.
Corequisite: SOC SC1 11-12 or 31-32

3 hours per week

HIST 54 AMERICAN DIPLOMATIC HISTORY SPRING 3 CREDITS
A survey of the foreign policy of the United States from the Revolution to the present in its various phases: isolationism; the Monroe Doc-
trine; expansion and the diplomacy of "Manifest Destiny"; the Civil War and its accompanying problems in foreign relations; America's emergence as a world power; the American role in World Wars I and II and subsequent peace conferences; America's relations with international organizations; the challenges to American supremacy.

Corequisite: SOC SCI 11-12 or 31-32

HIST 55-56 HISTORY OF LATIN AMERICA I and II

2 CREDITS

EACH SEMESTER

These courses trace the political, economic, social, and cultural evolution of the peoples and nations of Latin America, and study the region's development from the wars of independence to the contemporary problems and changing patterns of life in the twenty nations. It is proposed that these courses be offered, experimentally, with the assistance of televised lectures produced by the State University of New York and sponsored by the Council of Higher Educational Institutions in New York City and presented over WNYC-Channel 31. Admission to them is to be limited, under these conditions, to carefully selected students, i.e., a B or better average in selected social science courses. Examinations, written term papers and book reviews, complete map assignments, and personal meetings with the faculty member in charge of these courses are to be required.

Prerequisite: SOC SCI 11-12

INDUSTRIAL AND LABOR RELATIONS

ILR 12 INDUSTRIAL RELATIONS AND LABOR PROBLEMS

SPRING 3 CREDITS

Covers the historical, political, economic, and legal factors affecting labor-management relations. Pivotal issues of collective bargaining and current policy decisions and their relationship to labor problems are explored.

Prerequisite: BA 11

3 hours per week

ILR 31 JOB EVALUATION, WAGE AND SALARY ADMINISTRATION

FALL 3 CREDITS

Various methods of evaluating jobs, job descriptions, wage surveys, wage structures, wage and salary determination, and incentives are treated.

Prerequisite: ILR 12

3 hours per week

ILR 33 COLLECTIVE BARGAINING

FALL 3 CREDITS

Preparation, negotiation, and administration of union labor contracts.

Prerequisite: ILR 12

3 hours per week
ILR 34 LABOR LAW  SPRING  3 CREDITS
Judicial, legislative and administrative law affecting labor relations. Significant historical data and current legislative and judicial trends are examined.
Prerequisite: ILR 33  3 hours per week

ILR 36 TRAINING IN INDUSTRY  SPRING  3 CREDITS
Problems of designing, organizing, installing, implementing, and administering training programs. Tested methods of training employees and supervisory personnel are studied, with emphasis on methodology and visual aids; student demonstrations and case problems are utilized.
Prerequisite: ILR 12 or BA 31  3 hours per week

ILR 51 JOB ANALYSIS  FALL  3 CREDITS
A fundamental course in the theory and practice of job study. Areas covered are the role and uses of job analysis; techniques, methods, and procedures in conducting job studies, and ensuing job specifications. Each student will undertake a job analysis project.
Prerequisite: ILR 12 or BA 31  3 hours per week

ILR 92 FIELD EXPERIENCE IN INDUSTRIAL AND LABOR RELATIONS  SPRING  3 CREDITS
Eight hours of supervised field experience per week and one hour of classroom lecture and discussion of experiences in the field. 9 hours per week

INSURANCE

INS 31 PRINCIPLES AND PRACTICES OF INSURANCE I  FALL  4 CREDITS
An analysis of contracts for fire, automobile, fidelity and surety, and burglary insurance. A survey of insurance law, including risks insured against, exclusions, and endorsements. 4 hours per week

INS 32 PRINCIPLES AND PRACTICES OF INSURANCE II  SPRING  4 CREDITS
A study of the following kinds of insurance contracts: inland and ocean marine, public liability and negligence, workers’ compensation, accident and health, and other miscellaneous lines of coverage. An analysis of agents’ and brokers’ duties and responsibilities.
Prerequisite: INS 31  4 hours per week

INS 33 INSURANCE LAW  FALL  2 CREDITS
Emphasis on the relationship of law to insurance, including the practical application of investigation and adjustment of insurance claims.
Corequisite: INS 31  2 hours per week
INS 34 PRINCIPLES OF LIFE INSURANCE SPRING 2 CREDITS
A survey of the various forms of life insurance policies and life insurance contracts, selection of risks, mortality tables, rate-making and annuities.
Prerequisite: INS 31

2 hours per week

INS 92 FIELD EXPERIENCE IN INSURANCE SPRING 3 CREDITS
Eight hours a week of supervised field experience in insurance. An hour each week is devoted to classroom lecture and discussion of experience in the field related to insurance theory.
Prerequisites: INS 31 and 33
Corequisites: INS 32 and 34

9 hours per week

MATHEMATICS

MATH 01 ELEVENTH YEAR FALL or SPRING NO CREDIT
MATHEMATICS
Same course as 11th Year Mathematics in high school. A non-credit course that must be taken by students who need it to satisfy admission requirements.
Prerequisite: Elementary Algebra

4 hours per week

MATH 05 INTENSIVE MATHEMATICS FALL or SPRING NO CREDIT
REVIEW
A comprehensive treatment of the basic mathematics topics outlined by the University of the State of New York and an intensive review of certain topics in algebra. Primarily for non-matriculants and students in special programs, and open to others who may profit from such review.

3 hours per week

MATH 10 COLLEGE ALGEBRA FALL or SPRING 3 CREDITS
The number system of algebra, non-decimal scales, permutations, combinations, probability, determinants, inequalities, theory of equations, symbolic logic, principles of set theory, groups, rings, and fields. Designed for non-math majors; in particular, for those who intend to take Mathematics of Finance.
Prerequisite: 11th Year Mathematics

3 hours per week

MATH 11 BUSINESS MATHEMATICS FALL 3 CREDITS
(Formerly MATH 1)
Problems of percentage, mark-up, discounts, interest, payroll, tax calculations, and insurance. Problem-solving by desk calculator. Not recommended for transfer credit.
Prerequisite: 2 years of high school Mathematics, including Elementary Algebra

3 hours per week

96
MATH 12 MATHEMATICS OF FINANCE  FALL or SPRING  3 CREDITS
(Formerly MATH 2)
College Algebra oriented to business: mathematics of investment, compound interest, present value, nominal and effective rates, annuities, amortization, depreciation, sinking funds, bonds and stocks, and the elements of statistics. Practice in the use of desk calculators. Designed for career programs; Math 14 should be taken by students planning to continue for the bachelor's degree.
Prerequisite: Intermediate Algebra, 11th Year Mathematics, or MATH 10 3 hours per week

MATH 14 FUNDAMENTAL CONCEPTS OF MATHEMATICS  FALL or SPRING  4 CREDITS
(Symbolic logic, elements of set theory, properties of groups, rings, and fields, open sentences, functions and relations; introduction to analytic geometry and to probability. Recommended for prospective baccalaureate candidates.
Prerequisite: Intermediate Algebra or 11th Year Mathematics 4 hours per week

MATH 15-16 CALCULUS I AND II  FALL or SPRING  8 CREDITS FOR YEAR
Differential and integral calculus for functions of one variable; the elements of analytic geometry; an introduction to linear differential equations of the first and second order, first degree.
Prerequisite: 11th Year Mathematics or Math 14 4 hours per week

MATH 17-18 CALCULUS Ii AND Ilh  FALL and Spring  8 CREDITS FOR YEAR
Rate of change of a function, derivatives, applications, integration, applications of a definite integral, transcendental functions, determinants, linear equations, analytic geometry, hyperbolic functions, polar coordinates, vectors, solid geometry, partial differentiation. MATH 17-18 is equivalent to MATH 15-16-21.
Prerequisite: 12th Year Mathematics or MATH 14 4 hours per week

MATH 21 CALCULUS III  FALL  4 CREDITS
Partial differentiation, polar coordinates, solid geometry and vectors, hyperbolic functions.
Prerequisite: MATH 16 4 hours per week

MATH 50 ELEMENTS OF STATISTICS  SPRING  3 CREDITS
Introduction to probability and statistics: condensation of data, tabulation and graphing of distributions, central and dispersion tendencies,
comparison techniques, correlations, and predictive techniques. Instruction and practice in the use of desk calculators.

Prerequisite: MATH 10, 12, or 14

3 hours per week

MATH 52 FINITE MATHEMATICS

FALL or SPRING

3 CREDITS

An advanced course designed for non-science, non-mathematics majors; includes Boolean Algebra, advanced probability, matrices, Markov chains, and applications to the social and behavioral sciences.

Prerequisite: MATH 14 or 12th Year Mathematics

3 hours per week

MATH 55 DIFFERENTIAL EQUATIONS

FALL

3 CREDITS

Solution of ordinary linear differential equations, operational techniques solution by series, numerical solutions, Laplace transforms, applications in engineering and the sciences.

Prerequisite: MATH 16 or 18

4 hours per week

MATH 56 LINEAR ALGEBRA

SPRING

3 CREDITS

A study of vector spaces, matrix algebra, transformations, and vector analysis.

Prerequisite: MATH 16 or 18

4 hours per week

MATH 57-58 CALCULUS IIIh-IVh

FALL and SPRING

8 CREDITS

FOR YEAR

An advanced course in the Calculus from a vector calculus viewpoint; and topics in limits, sequences, and series.

Prerequisite: MATH 18 or 21

4 hours per week

MUSIC

MUS 31 AN INTRODUCTION TO MUSIC

FALL or SPRING

2 CREDITS

Development of perceptive awareness of music through guided listening, using as the basis common musical experience and fundamental musical ideas developed through voice and instruments. Recorded compositions illustrative of composers and styles. Outside assignments involving written reports, readings, and attendance at performances complement instruction.

2 hours per week

MUS 32 THEORY OF MUSIC

SPRING

2 CREDITS

Theoretical bases of music are studied, to develop music-reading ability, aural perception, and practical skills in harmony and elementary counterpoint. Aspects of pitch and rhythmic notation (including intervals, scales, keys, and triads) and extensive practice in melodic, rhythmic, and harmonic dictation and sight-singing (solfege). Beginning studies in three-
and four-part harmony (harmonization of melodies, unfigured and figured basses), counterpoint, harmonic and formal analysis.

2 hours per week

NURSING

NURS 11 FUNDAMENTALS OF NURSING  FALL or SPRING  6 CREDITS
Emphasis on those aspects of nursing care that are common and basic to all patients in the maintenance or restoration of normal body functions. Principles selected from the physical, biological, and behavioral sciences are used as unifying concepts. Application of these concepts to the nursing care fundamental to all patients is stressed.

10 hours per week:
4 lecture, 6 laboratory

NURS 12 NURSING OF MOTHERS AND NEWBORNS  SPRING  6 CREDITS
Physical, biological, and psychosocial processes involved in the establishment and expansion of the family as a unit. Emphasis upon nursing responsibilities in normal pregnancy, preparation for labor and delivery, normal puerperium, and health of the newborn and its family.
Prerequisite: NURS 11

12 hours per week:
3 lecture, 9 laboratory

NURS 31 NURSING IN PHYSICAL AND MENTAL ILLNESS I  FALL  8 CREDITS
Illnesses which are major health problems to society. The meaning of illness to society, family, and individuals is considered. Nursing intervention based on the physiological and psychosocial needs of patients of all age groups is emphasized. Opportunities are provided to adapt and combine nursing skills in caring for patients. Health problem areas: infectious processes, cardiovascular dysfunctions, metabolic disorders.
Prerequisite: NURS 12

14 hours per week:
5 lecture, 9 laboratory

NURS 32 NURSING IN PHYSICAL AND MENTAL ILLNESS II  SPRING  10 CREDITS
Continuation of NURS 31. Health problem areas: accidents, disorders of motility, tumors, emotional disorders.
Prerequisite: NURS 31

18 hours per week:
6 lecture, 12 laboratory

ORIENTATION

OR 11 EFFECTIVE STUDY  FALL or SPRING  1/2 CREDIT
The basic problems and methods of study are examined: scheduling of study, conditions that impede or facilitate learning, the role of
emotions and attitudes in learning difficulties. Reading and related individual problems.  

1 hour per week

PHYSICAL EDUCATION

PE 1 FUNDAMENTALS OF PHYSICAL EDUCATION  
FALL or SPRING  
½ CREDIT

Designed to assist the student in the development and improvement of physical efficiency, body mechanics, physiologic function, and motor skills. Emphasis on agility, coordination, endurance, and strength. Administered tests and self-testing used to motivate and evaluate progress.

2 hours per week

PE 2 TEAM SPORTS  
FALL or SPRING  
½ CREDIT

An activity course with emphasis on learning the skills and strategies of sports such as basketball, soccer, softball, and volleyball.

2 hours per week

PE 21 INDIVIDUAL SPORT ACTIVITIES  
FALL or SPRING  
½ CREDIT

Emphasis is on learning the skills and strategies of individual sport activities such as archery, badminton, fencing, golf, and tennis.

2 hours per week

PE 22 DANCE AND RHYTHMS  
FALL or SPRING  
½ CREDIT

Designed to assist the student in the development and improvement of rhythmic and dance skills. Emphasis on elementary social, square, folk, and modern dance.

2 hours per week

PHYSICS

PHYS 11-12 GENERAL PHYSICS  
FALL and SPRING  
10 CREDITS FOR YEAR

A survey of classical and modern physics, including motion, force, momentum, energy, heat, kinetic theory, sound, electricity and magnetism, light atomic and nuclear physics, and discussion of crucial experiments in these fields.

Prerequisite: 11th Year Mathematics  
Corequisite: MATH 15 or 17

6 hours per week:  
4 lecture/recitation, 2 laboratory

PHYS 21 MODERN PHYSICS  
FALL or SPRING  
4 CREDITS

Mainly atomic physics, with a unit on the special theory of relativity; kinetic theory; the failure of classical physics. Introduction of quantum
concepts; electrons; the Bohr atom; the Uncertainty Principle. An intro­duction to wave mechanics.

Prerequisite: PHYS 12 5 hours per week: 3 lecture/recitation, 2 laboratory
Corequisite: MATH 55 or 57

PHYS 24 ANALYTICAL MECHANICS FALL or SPRING 4 CREDITS
Selected topics in Newtonian mechanics; the Principle of Virtual Work; Newton’s Second Law: rocket motion; relativistic mechanics; the damped, driven harmonic oscillator; coupled oscillators and vibrating systems; rigid bodies; the gyroscope and the top; central forces; the Kepler problem and the Rutherford problem.
Prerequisite: PHYS 12 5 hours per week:
Corequisite: MATH 55 3 lecture/recitation, 2 laboratory

PHYS 26 ELECTRICITY AND MAGNETISM FALL or SPRING 4 CREDITS
This course develops the conceptual basis for Maxwell’s equations. Vectors; electrostatics and magnetostatics; electromagnetic induction; circuits; electric and magnetic properties of matter; radiation; relativistic electrodynamics.
Prerequisite: PHYS 12 5 hours per week:
Corequisite: MATH 55 or 57 3 lecture/recitation, 2 laboratory

PHYS 28 ELEMENTS OF THERMODYNAMICS FALL or SPRING 3 CREDITS
The Zeroth, First, Second, and Third Laws of Thermodynamics and their consequences; thermodynamic variables and equations of state; entropy; phase transitions; theory of dilute solutions; low temperature physics; Gibbs and Helmholtz potentials; thermal radiation.
Prerequisites: PHYS 12, CHEM 12, and MATH 55 3 hours per week

PHYS 50 INTRODUCTION TO MATHEMATICAL PHYSICS FALL or SPRING 3 CREDITS
Selected topics in mathematical physics: probability and statistics; review of differential equations; vectors; partial differential equation; Fourier analysis; Eigenvalue problems; special functions, orthonormal sets. May be counted as a mathematics or physics course.
Prerequisites: PHYS 12 and MATH 55 3 hours per week
Corequisite: MATH 57
POLITICAL SCIENCE

POL SCI 51 AMERICAN GOVERNMENT  FALL or SPRING  3 CREDITS
An examination of the structure of the national government and its functions. Topics studied include the three branches of government (executive, legislative and judicial), political parties, pressure groups, and current legislation. Open only to sophomores.  3 hours per week

POL SCI 52 COMPARATIVE GOVERNMENT  SPRING  3 CREDITS
An analysis of the major types of political systems—democratic, authoritarian, transitional—and the political process in selected foreign countries, including the role of ideology, economics, elite groups, political parties, and political institutions. Comparison of western and non-western systems, with emphasis on Britain, France, the Soviet Union, Fascist Germany, Italy, and selected one-party states in Asia and Africa. Prerequisite: POL SCI 51  3 hours per week

PSYCHOLOGY

PSYCH 11 GENERAL PSYCHOLOGY  FALL or SPRING  3 CREDITS
An examination of the nature of psychology, its fields and divisions; the biosocial bases of behavior; individual differences; intelligence; the dynamics of behavior; emotions. Sensory and motor functions; learning, remembering, and forgetting; personality; mental hygiene; social psychology. Specific reference to the problems of human adjustment.  3 hours per week

PSYCH 32 HUMAN GROWTH AND DEVELOPMENT SPRING  3 CREDITS
(Listed also as EDU 32)
The sequential nature of development from infancy through childhood, adolescence, and adulthood, in reference to intellectual growth, personal and social adjustment, and vocational and recreational interests. The relationship between physical and mental development; typical problems in various stages of the life-cycle. Prerequisite: PSYCH 11  3 hours per week

PSYCH 52 INDUSTRIAL PSYCHOLOGY SPRING  3 CREDITS
Principles and concepts of the behavioral sciences are applied in the work situation. Areas of study are: the nature of work, work environment, measurement of efficiency, motivation, attitudes, morale, fatigue, leadership, and the adjustment and adaptation of the work force. Prerequisite: PSYCH 11  3 hours per week

102
REAL ESTATE

RE 31 PRINCIPLES AND PRACTICES OF REAL ESTATE I
FALL 3 CREDITS
A survey of interests in realty, general business law, real estate contracts, bonds and mortgages, deeds, liens and easements, and leases.
3 hours per week

RE 32 PRINCIPLES AND PRACTICES OF REAL ESTATE II
SPRING 3 CREDITS
A continuation of RE 31, including agency, taxes and assessments, closing, forms of voluntary and involuntary alienation, license law, management, real estate valuation and appraisal, rent regulation, subdivisions and developments, operation of a broker's office, including salesmanship and advertising.
Prerequisite: RE 31
3 hours per week

RE 33 URBAN LAND ECONOMICS
FALL 3 CREDITS
Economic analysis of urban land economy, land utilization, real estate income, zoning regulations, and city planning.
Corequisite: RE 31
3 hours per week

RE 34 REAL ESTATE MANAGEMENT AND APPRAISAL
SPRING 3 CREDITS
Analysis of the practices involved in managing and operating real estate, including owner and agency management, landlord-tenant relations, government regulations, and techniques and practices involved in appraising real property both developed and undeveloped.
Prerequisite: RE 31
3 hours per week

RE 92 FIELD EXPERIENCE IN REAL ESTATE
SPRING 3 CREDITS
Eight hours a week of supervised field experience in real estate. An hour each week is devoted to classroom lecture and discussion of experience in the field related to real estate theory.
Prerequisites: RE 31 and 33
Corequisites: RE 32 and 34
9 hours per week

RETAILING

RET 31 ELEMENTS OF RETAILING
FALL 3 CREDITS
Management techniques essential to planning, organization, control, and operation of retail establishments; the fundamentals underlying modern merchandising practices; recent developments in trading area...
analysis, shopping centers, consumer relations, warehousing, transportation, and stock control; data processing. Retail case studies and field trips.

3 hours per week

RET 33 SALESMA NSHIP FALL 3 CREDITS
Principles of selling based on the modern marketing concept, i.e., consumer needs and desires together with company objectives; contributions of the behavioral sciences to the study of consumer behavior and buying patterns; organization and control of the sales force—wholesale, industrial, and retail.

3 hours per week

RET 34 FASHION BUYING AND MERCHANDISING SPRING 3 CREDITS
Dynamics of the world of fashion; selection and merchandising of fashion products; market evaluation; forecasting fashion trends; consumer buying habits; stock planning; buying committees; resident buying offices; domestic and foreign markets. Field trips to New York’s famous Seventh Avenue.

3 hours per week

RET 35 MERCHANDISE INFORMATION FALL 3 CREDITS
Fashion fabrics and non-textile merchandise information, including their identification, characteristics, merits and limitations, and care. Detailed study of natural and man-made fibers, types of yarns, construction, finishes and coloring of fabrics, and end use. Detailed study of leather, rubber, plastic, paint, paper, furs, jewelry, cosmetics, soaps and synthetic detergents, and other non-textile products.

4 hours per week: 2 lecture, 2 laboratory

RET 36 MERCHANDISE DISPLAY SPRING 2 CREDITS
Laboratory practice in designing and building interior, window, and point-of-purchase displays. Field trips and guest demonstrations.

4 hours per week: 1 lecture, 3 laboratory

RET 38 APPAREL CONSTRUCTION AND DESIGN SPRING 3 CREDITS
The construction, design, and selection of children’s, men’s, and women’s apparel. Principles of good taste in combining fabric, trimming, and structure. Limitations on fashion design that are inherent in price ranges, size ranges, occasion-use, and customer preference. Laboratory demonstrations of common style variations, and the limitations and possibilities in different types of styling. Laboratory experience in draping muslin on the three-dimensional form.

5 hours per week: 1 lecture, 4 laboratory

104
**RET 51 DATA PROCESSING FOR RETAILERS**  
**FALL 3 CREDITS**

Electronic data processing as an aid to retail management; includes the recording of data at point-of-sale, back-office data recording, inventory control, automatic ordering of staples, perpetual open-to-buy, fashion forecasting, merchandising by classification, sales trends, improvement in turnover, seasonal planning, improvement in stock/sales ratio, shipping and warehousing, accounts receivable and payable, and payroll.

3 hours per week

**RET 92 FIELD EXPERIENCE IN RETAILING**  
**SPRING 3 CREDITS**

Eight hours per week of supervised field experience in retailing plus one hour of seminar discussion.

9 hours per week

**SCIENCE**

**SCI 31-32 HISTORY AND PHILOSOPHY OF SCIENCE**  
**FALL and SPRING 4 CREDITS FOR YEAR**

For Associate in Applied Science degree candidates. A discussion of the sciences from the historical and philosophical point of view; the place of science in the modern world.

2 hours per week

**SCI 33 INTRODUCTION TO MODERN BIOLOGY**  
**FALL or SPRING 4 CREDITS**

For non-science majors. Emphasizes the modern theory of evolution and its application to current problems in ecology and conservation. The necessary background in cell biology, mitosis, meiosis, embryology, and genetics is provided through coordinated lecture and laboratory sessions.

5 hours per week: 3 lecture/recitation, 2 laboratory

**SCI 34 INTRODUCTION TO MODERN CHEMISTRY**  
**FALL or SPRING 4 CREDITS**

For students who do not intend to become chemists and have had no previous background. The fundamental purpose is to develop chemical literacy, ability to read and write chemical equations, and ability to interpret equations and understand the stoichiometric implications. Basic concepts are developed with the aid of demonstrations and within the framework of a historical approach. Laboratory work involves investigations of the properties of simple substances.

Prerequisite: 11th Year Mathematics

5 hours per week: 3 lecture/recitation, 2 laboratory
SCI 35 INTRODUCTION TO MODERN PHYSICS
FALL or SPRING 4 CREDITS
A course for non-science majors, with emphasis on the 20th Century revolution in physics: the classical background; the Special Theory of Relativity; quantum theory; atomic structure and properties of matter. Prerequisite: MATH 10 or 14

SCI 36 INTRODUCTION TO EARTH SCIENCE
FALL or SPRING 4 CREDITS
Designed for non-science majors, with emphasis on the earth's environment and structure, as seen from the viewpoints of astronomy, geology, meteorology, and oceanography. Prerequisite: MATH 10 or 14

SECRETARIAL SCIENCE

SEC SCI 11 ELEMENTARY TYPEWRITING FALL 2 CREDITS
Development of the basic skills necessary for the operation and care of the manual and electric typewriter and application of these skills to the typing of simple personal and business forms. Students who have completed one year of high school typing may, upon approval, enroll in Intermediate Typewriting. 4 hours per week

SEC SCI 12 INTERMEDIATE TYPEWRITING SPRING 2 CREDITS
Continued development of typing speed and control with application to the typing of business forms, including letters, tabulated materials, and multiple carbons, proofreading. Students who have satisfactorily completed the equivalent of this course, may, with the approval of the Division chairman, be exempt. Prerequisite: SEC SCI 11 or equivalent 4 hours per week

SEC SCI 13 ELEMENTARY STENOGRAPHY FALL 2 CREDITS
Presentation of the theory of Gregg shorthand, practice in reading and writing contextual materials, pretranscription. Open to those who have studied shorthand in high school for less than one year. 4 hours per week

SEC SCI 14 INTERMEDIATE STENOGRAPHY FALL 2 CREDITS
Continuation of Elementary Stenography, with further mastery of theory and development of speed in reading and writing shorthand; emphasis
on building of sustained speed and beginning of transcription. Those who have studied Pitman shorthand in high school for one year will take Pitman stenography.

Prerequisite: SEC SCI 13 or equivalent 4 hours per week

SEC SCI 31 ADVANCED STENOGRAPHY FALL 2 CREDITS
Intensification of shorthand skills, with development of the ability to take shorthand at rates of 80 to 100 words per minute for sustained periods.

Prerequisites: SEC SCI 12 and 14 or equivalent 4 hours per week

SEC SCI 32 ADVANCED STENOGRAPHY AND TRANSCRIPTION SPRING 4 CREDITS
Further development of shorthand ability to enable the student to take dictation at rates of 120 or 140 words per minute for sustained periods. Concomitant development of the ability to transcribe accurately, under timed conditions, materials of varying lengths. For Secretarial Science majors pursuing the Executive and School Secretary options.

Prerequisites: SEC SCI 31 and 33 8 hours per week

SEC SCI 33 PRODUCTION TYPEWRITING FALL 2 CREDITS
Emphasis on production standards in the typing of business letters, business and legal forms, statistical materials, and ditto masters, and in the cutting of stencils. For secretarial majors only, or by consent of the Division chairman.

Prerequisite: SEC SCI 12 or equivalent 4 hours per week

SEC SCI 34 SECRETARIAL PRACTICE SPRING 2 CREDITS
Secretarial activities relating to use of the telephone, handling of business calls, planning of meetings, filing, banking and payroll, and typing of office forms. For secretarial majors.

Prerequisites: SEC SCI 31 and 33 3 hours per week

SEC SCI 51 ELEMENTARY LEGAL STENOGRAPHY AND PROCEDURES FALL 2 CREDITS
The structure of the courts and their relationship to one another; typical civil and criminal proceedings from initiation to enforcement and judgment; the various documents used in legal work; the responsibilities of the legal secretary. Development of legal shorthand vocabulary through dictation and transcription of all types of legal materials; emphasis on meaning and derivation of legal terminology. Open to those who have chosen the Legal Secretarial option.

Prerequisites: SEC SCI 12 and 14 or equivalent 4 hours per week
SEC SCI 52 ADVANCED LEGAL STENOGRAPHY SPRING 4 CREDITS
AND PROCEDURES
Continued development of legal shorthand vocabulary through fast dicta-
tion of legal materials, with accurate transcription the aim of the course.
Prerequisite: SEC SCI 51 8 hours per week

SEC SCI 53-54 THE SCHOOL SECRETARY FALL and SPRING 4 CREDITS
FOR YEAR
Consideration of the educational principles relating to the school secre-
tary's work with emphasis on the organization of school systems, in-
cluding particularly that of New York. Open to those who have chosen
the School Secretarial option. 2 hours per week

SEC SCI 55 SCHOOL RECORDS AND ACCOUNTS FALL 2 CREDITS
Activities and responsibilities of the school secretary, including the
preparation of reports usually completed in the school office, such as at-
tendance, accidents, and payroll; filing; records of school personnel,
textbooks, and supplies; school accounts. Open to those who have
chosen the School Secretarial option. 2 hours per week

SEC SCI 92a FIELD EXPERIENCE, SPRING 3 CREDITS
EXECUTIVE SECRETARIAL
Eight hours per week of supervised work experience in business con-
cerns in the community where the student puts into practice the
principles learned in the classroom. One hour a week of classroom
discussion of on-the-job experience.
Prerequisites: SEC SCI 31 and 33 9 hours per week

SEC SCI 92b FIELD EXPERIENCE, SPRING 3 CREDITS
LEGAL SECRETARIAL
Eight hours per week of supervised work experience in law firms in the
community, where the student puts into practice the principles learned
in the classroom. One hour a week of classroom discussion of on-the-
job experience.
Prerequisites: SEC SCI 31, 33, and 51 9 hours per week

SEC SCI 92c FIELD EXPERIENCE, SPRING 3 CREDITS
SCHOOL SECRETARIAL
Eight hours per week of supervised work experience in schools in the
community, where the student puts into practice the principles learned
in the classroom. One hour a week of classroom discussion of on-the-
job experience.
Prerequisites: SEC SCI 31, 33, and 55 9 hours per week
SOCIAL SCIENCE

SOC SCI 11-12 AMERICAN CIVILIZATION FALL and SPRING 6 CREDITS FOR YEAR
The evolution of American political, economic, social, and cultural life from the age of exploration to the 20th century. American democracy is examined institutionally against the panoramic background of the nation’s history, drawing upon the materials of the social sciences. The use of contemporaneous documents illustrates the origins and development of American traditions.

3 hours per week

SOC SCI 31-32 THE CONTEMPORARY WORLD FALL and SPRING 6 CREDITS FOR YEAR

3 hours per week

SOCIOLGY

SOCIO 31 PRINCIPLES OF SOCIOLOGY FALL 3 CREDITS
The student is introduced to the basic insights provided by the science of sociology. The techniques commonly used in probing the structures and functions of group behavior are examined. Particular attention is devoted to social institutions with which the student is acquainted, such as the family, and to social change and cultural diversity.

3 hours per week

SOCIO 32 URBAN SOCIOLOGY SPRING 3 CREDITS
The development of the modern city as the fundamental expression of Twentieth Century civilization. Consideration is given to the problems and trends characterizing present-day urban society.
Prerequisite: SOCIO 31

3 hours per week

SPANISH

SPAN 11 ELEMENTARY SPANISH I FALL or SPRING 3 CREDITS
An introduction to the fundamentals of the language, emphasizing aural and written skills, reading, and comprehension.

4 hours per week: 3 lecture/recitation, 1 laboratory
SPAN 12 ELEMENTARY SPANISH II  
FALL or SPRING  
3 CREDITS
Increasing emphasis upon the organic use of Spanish, with grammar and oral and written drill, supplemented by reading of graduated texts of increasing difficulty. Comprehension and spoken usage stressed.
Prerequisite: SPAN 11 or equivalent  
4 hours per week:  
3 lecture/recitation, 1 laboratory

SPAN 13 INTERMEDIATE SPANISH  
FALL or SPRING  
3 CREDITS
Building of oral and written skills upon the foundations established in SPAN 11 and 12, or the equivalents. Stress upon thorough review, increasingly supplemented by reading, oral, and written Spanish. Reading of moderately difficult texts as a basis for serious study of Spanish literature, language, and civilization.
Prerequisite: SPAN 12 or equivalent  
4 hours per week:  
3 lecture/recitation, 1 laboratory

SPAN 14 SURVEY OF SPANISH LITERATURE  
FALL or SPRING  
3 CREDITS
An advanced course for students successfully completing SPAN 13 or the equivalent. Selected writings of representative authors, with instruction entirely in Spanish. Analysis of literary values and fine points of grammar.
Prerequisite: SPAN 13 or equivalent  
3 hours per week

SPAN 52 READINGS IN SPANISH LITERATURE  
SPRING  
3 CREDITS
The literature of the period 1898-1925 (the “Generation of 1898”), including particularly the works of Garcia Lorca, Unamuno, Jimenez, and Ganivet, with emphasis on specific full length works. Objectives are linguistic (better understanding of written Spanish) as well as literary. Explication du texte, written composition, and oral discussion are utilized.
Prerequisite: SPAN 14 or equivalent  
3 hours per week

SPAN 53 LATIN AMERICAN LITERATURE  
FALL  
3 CREDITS
A survey of the significant literary production of Latin America from colonial beginnings to the present day, with special attention to the major authors of the 20th Century. The course is conducted in Spanish.
Prerequisite: SPAN 14 or equivalent  
3 hours per week
SPAN 54 ADVANCED SPANISH GRAMMAR, SPRING 3 CREDITS
COMPOSITION, AND CONVERSATION

After a rapid review of principles basic to earlier work, the course concentrates upon the development of skill and facility in composition and conversation.
Prerequisite: SPAN 14 or equivalent, and permission of instructor
3 hours per week

SPEECH

SPE 21 ORAL COMMUNICATION FALL or SPRING 2 CREDITS
Through theory and practice students learn to speak informatively, persuasively, and responsibly; to understand and use constructively what others communicate; and to interact purposefully as members of small discussion groups.
3 hours per week

SPE 51 DRAMATIC EXPERIENCE FALL or SPRING 3 CREDITS
Emphasis on the unique demands of the drama upon the sensitivities of an audience. Students' emotional appreciation and critical faculties are stimulated through the study of dramatic style and form. Workshop techniques, slides, and films provide insights into the craft of the actor, director, playwright, and stage designer.
Prerequisite: SPE 21
3 hours per week

SPE 54 GROUP DISCUSSION SPRING 3 CREDITS
Introduction to the principles and practices of discussion and argumentation in small group situations. Content, interaction, and communication form are examined with the purpose of promoting member and leader responsibility in creative and persuasive thinking.
Prerequisite: SPE 21
3 hours per week
**HOW TO REACH THE COLLEGE LOCATIONS**

1 **To Mid-Brooklyn**
   
   **By subway:**
   
   BMT Brighton trains to DeKalb Ave.; B-38 bus to the College.
   BMT Sea Beach and West End trains to DeKalb Ave. (except during rush hours); B-38 bus to the College.
   
   **By Long Island Railroad:**
   
   To Atlantic Avenue station; B-38 bus to the College.

2 **To Manhattan Beach**
   
   **By subway:**
   
   BMT Brighton trains to Sheepshead Bay; Bus B1 Manhattan Beach to the College.
   BMT Sea Beach to 86th St.; Bus B-1.
   BMT West End to 25th Ave.; Bus B-1.
   BMT Fourth Ave. RR train to 59th St.; Sea Beach to 86th St.; Bus B-1.
   IND D to Avenue X; Bus B-1.
   IND A to Franklin Ave.; Shuttle to Prospect Park; BMT Brighton to Sheepshead Bay; Bus B-1.
   IRT Lexington Ave. or 7th Ave. Express to Borough Hall; Brighton Local to Sheepshead Bay; Bus B-1.
   
   **By bus:**
   
   The following bus routes connect with the B-1 Manhattan Beach bus, which goes directly to the College: B-4 Bay Ridge Pkwy.; B-34 Bay Ridge Ave.; B-36 Surf Ave.; B-44 Nostrand Ave. (via B-36 Surf Ave.); B-49 Ocean Ave.; B-64, 86th St.; B-68 Coney Island Ave.
   
   **By car:**
   
   Ocean Pkwy. or Coney Island Ave. south to Brighton Beach Ave., east (left) to the College; Ocean Ave., Bedford Ave., or Nostrand Ave. south to Emmons Ave., west to West End Ave., south to Oriental Blvd., east to the College. From the East: Belt Parkway westbound, to Knapp St. exit; south to Emmons Ave.; proceed as above. From Manhattan and western Queens: Brooklyn-Battery Tunnel or Brooklyn-Queens Expressway to Belt Parkway eastbound; to Ocean Pkwy. southbound exit; to Brighton Beach Ave.; east to the College.

3 **To City University College Center**
   
   The City University College Center, located at 60 West End Ave., is on the route to the Manhattan Beach campus; directions to the campus (above) serve for the College Center, as well; the Center is on the west side of West End Ave., just south of Emmons Ave.