BRONX COMMUNITY COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK

CATALOG NO. 4 1967-1968
BRONX COMMUNITY COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK
UNDER THE PROGRAM OF
THE STATE UNIVERSITY OF NEW YORK

CATALOG NO. 4
1967-1968
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The College reserves the right to make changes in the regulations and courses announced in this catalog, as circumstances may require.
ACADEMIC CALENDAR 1967-1968

1967  FALL SEMESTER

September 5-19  Pre-class orientation sessions and Placement Examinations
September 6-14  Registration *
September 9  Make-up and conditional examinations for resolution of Summer Session E & K grades (except "E Audit" grades)
September 18  General Faculty Meeting 9:30 a.m. with Departmental Faculty Meetings to follow
September 20  First day of classes
October 4  Faculty Conference
October 4-6  No classes
October 7  Make-up and conditional examinations for resolution of Spring Session E & K grades
October 12  No classes—Columbus Day
October 14  No classes
October 16  Last day for resolution of E, K, and L grades of Spring '67 and Summer '67 sessions
October 23-27  Early warning to students doing unsatisfactory academic work
November 7  No classes—Election Day
November 11  No classes—Veterans Day
November 15-21  Mid-term grades issued to students by instructors
November 22  Last opportunity to withdraw officially from classes without penalty regardless of academic standing in class, but subject to approval of grade of J by the instructor
November 22  Thursday schedule in effect during day and evening. Classes will not meet on this date
November 23-24  No classes—Thanksgiving Recess
November 25  Classes meet according to schedule
December 24-January 1  No classes—Winter Recess
January 13  Last day of classes
January 15-22  Final examinations

* Hours of registration will be announced in the Schedule of Classes which will be available well in advance of each semester.
<table>
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<th>Date</th>
<th>Event</th>
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<td><strong>January 26-February 8</strong></td>
<td>Pre-class orientation sessions and Placement Examinations</td>
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<tr>
<td><strong>January 30-February 5</strong></td>
<td>Registration *</td>
</tr>
<tr>
<td><strong>February 9</strong></td>
<td>First day of classes</td>
</tr>
<tr>
<td><strong>February 12</strong></td>
<td>No classes—Lincoln’s Birthday</td>
</tr>
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<td><strong>February 22</strong></td>
<td>No classes—Washington’s Birthday</td>
</tr>
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<td><strong>March 4-9</strong></td>
<td>Early warning to students doing unsatisfactory academic work</td>
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<tr>
<td><strong>March 9</strong></td>
<td>Make-up and conditional examinations for resolution of Fall Session E &amp; K grades</td>
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<tr>
<td><strong>March 15</strong></td>
<td>Last day for resolution of E, K, and L grades for Fall ’67 semester (except “E Audit” grades)</td>
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<tr>
<td><strong>March 19</strong></td>
<td>Thursday schedule in effect during day and evening</td>
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<tr>
<td><strong>March 20</strong></td>
<td>No classes—(Day or Evening)—Faculty Conference</td>
</tr>
<tr>
<td><strong>April 1-6</strong></td>
<td>Mid-term grades issued to students by instructors</td>
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<td><strong>April 7-21</strong></td>
<td>Spring Recess</td>
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<td><strong>April 23-May 5</strong></td>
<td>BCC Charter Week</td>
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<td><strong>May 18</strong></td>
<td>Placement Examinations for new matriculated students (Fall ’68 semester)</td>
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<td><strong>May 29</strong></td>
<td>Last day of classes</td>
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<td><strong>June 3-10</strong></td>
<td>Final Examinations</td>
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<td><strong>June 13</strong></td>
<td>Commencement</td>
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<tr>
<td><strong>October 5</strong></td>
<td>Make-up examinations for resolution of Spring Session K grades</td>
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**1968 SUMMER SESSION**

* Hours of registration will be announced in the Schedule of Classes which will be available well in advance of each semester.

** Schedule to be announced by the office of the Dean of Summer Session.
INTRODUCING BRONX COMMUNITY COLLEGE
PHILOSOPHY AND AIMS OF THE COLLEGE

Quality Higher Education For The Many

Bronx Community College was founded to implement the democratic ideals of our community and the City and State University of New York, to offer ever-widened opportunities for higher education for the many. The admissions and matriculation policies are designed to offer the student who is able to profit from education after high school the chance to become, in the words of the State University motto, "all that he is capable of being." The College encourages its students to maintain high academic and personal standards by stressing quality of achievement and social responsibility.

A community college aims to help the student to acquire the knowledge and develop the attitudes and skills characteristic of higher education. Its functions are to offer broad, comprehensive and useful educational experiences to prepare for a life of independent and creative thinking, dignity, and community participation and contribution. Community college education combines sound general education in the liberal arts with meaningful professional or career preparation which is modern and relevant.

At Bronx Community College, the primary emphasis in the duties and responsibilities of the individual faculty member is on effective and scholarly instruction of students, in addition to their guidance and inspiration. The College encourages and supports faculty interest and concern in student welfare and the constant improvement of the quality of instruction.

A Comprehensive Program: Career and Transfer Curricula

The variety of breadth of the educational programs and curricula of the College provide offerings for students of many interests and talents. The comprehensive nature of the College makes it possible for students to choose career programs which may lead either directly to employment as skilled sub-professionals or technicians or to Continued Education toward a baccalaureate degree. The "transfer" or "university-parallel" curricula in Liberal Arts and Sciences, Business Administration, Engineering Science, Performing Arts-Music, and Pre-Pharmacy prepare students for continued study toward the baccalaureate degree, or professional and graduate studies.

College policy permits transfer internally from one curriculum or program to another, in the best interests of the student, as plans mature realistically. Students who prove their achievement and abilities are encouraged to re-evaluate and reconsider their goals and choices.
General Education

The College curricula provide substantial general education for all students, who are thus prepared for creative citizenship, participation, and responsibility in our free society. In its comprehensive programs, the College thus fulfills its basic functions of the imparting of knowledge and the development of skills and attitudes appropriate to higher education.

CHARTER

The New York State Board of Regents, through the Division of Higher Education of the New York State Department of Education, has chartered and approved all curricula and programs of Bronx Community College.

ACCREDITATION

Bronx Community College is accredited by the Middle States Association of Colleges and Secondary Schools, through its Commission on Institutions of Higher Education, both as a unit of The City University of New York and as an individual college.

The curricula in Electrical and Mechanical Technologies are accredited by the Engineers' Council for Professional Development.

The Nursing curriculum is accredited by the National League for Nursing.

AFFILIATIONS

The Bronx Community College is a member of the American Association of Junior Colleges, the New York State Association of Junior Colleges, and the Council of Higher Educational Institutions in New York City.

In addition, the college and its faculty have numerous professional memberships and scholarly affiliations.
HISTORY OF THE BRONX COMMUNITY COLLEGE

The founding of the Bronx Community College in 1957 crowned a decade of effort by civic-minded citizens in Bronx County. To meet the growing need for higher educational facilities for the youth of this community, they urged the establishment of a new, publicly-supported two-year college in the Bronx.

The Board of Higher Education of the City of New York recommended that the Bronx Community College be established under their sponsorship as part of the program of the State University of New York. The Board of Estimate of the City of New York and the Trustees of the State University of New York approved the recommendation, according to the State Education law, after which the new college became a reality on April 11, 1957.

Dr. Morris Meister, principal of the nationally known Bronx High School of Science, was named president in October, 1957, and took office in February, 1958. Under President Meister's leadership, the College staff embarked on the planning and preparation for instruction for the first class which enrolled in February, 1959.

After a diligent search for an appropriate campus, the site chosen for the College was the forty-year-old Bronx High School of Science building on East 184th Street and Creston Avenue in the Bronx, not immediately available until the high school occupied its new plant. Therefore, the first group of 120 students studied for six weeks in temporary space provided by Hunter College in its Park Avenue building. In March, 1959, the Bronx Community College, students, faculty and administration, moved to its present Main Building campus.

A previously proposed and carefully planned renovation project was immediately set into high gear to convert the basically sound, five-story structure to a modern college. During the rehabilitation program, supplementary off-campus facilities were acquired as needed. Throughout the five year period of renovation, provisions were made to continue the steady growth in order to accommodate all qualified students, despite the rehabilitation and expansion programs.

In April, 1961, the City University of New York became a new entity by action of the State Legislature, with Bronx Community College as one of the then seven constituent undergraduate colleges, which now number thirteen. In November, 1961, the College was accredited by the Middle States Association of Colleges and Secondary Schools as part of The City University and in the Spring of 1963, after a full accreditation team visit, re-accredited. At the same time, the Engineers' Council for Professional Development
accredited the Electrical and Mechanical Technologies curricula. The Nursing curriculum received, in 1964, preliminary approval of the National League for Nursing and was formally accredited by that body in November, 1966. The College was again visited by the Middle States Association in November, 1966, as part of the accreditation of the entire City University.

By September, 1966, the College was serving 3,000 matriculated students, attending sessions from 8 A.M. to 10:30 P.M., the great majority attending tuition-free, among whom were over 300 students of the City University "College Discovery Program." In addition, some 4,000 non-matriculated students attended classes, including those that meet after 6 P.M., and continue to utilize the new Bronx High School of Science building, in addition to the Main Center.

The expanded Nursing program of the College includes operation of the new 13-story Nursing Residence and School opened in September, 1964, at the Bronx Municipal Hospital Center, in cooperation with the Department of Hospitals of the City of New York. Full-time Nursing students study tuition-free and enjoy dormitory facilities provided free of charge by the City of New York.

A new Technical Skills Center at 4725 Park Avenue is planned for completion in the fall of 1967. The three-story building will house Plastics Technology laboratories and Micro-Electronics equipment.

The Spring 1966 semester marked the retirement of Dr. Morris Meister, the founding President. Dr. James A. Colston, the second president of Bronx Community College, assumed office August 1, 1966.

The planning of the new air-space campus, approved by the Board of Higher Education, the City Planning Commission, the State University of New York, the Site Selection Committee and the Board of Estimate, is currently under way. This campus will provide expanded facilities for 4,800 full-time and 8,000 part-time students, to enable the College to serve both the needs of future generations of students and the community as a cultural center.
GRANTS MADE TO BRONX COMMUNITY COLLEGE
FOR SPECIAL PROJECTS AND STUDIES

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<th>DATE</th>
<th>ACTIVITY AND PURPOSE</th>
<th>SUPPORTED BY</th>
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<td>1958-59</td>
<td>A Study of Community Colleges and the Community</td>
<td>Fund for the Advancement of Education (Ford Foundation)</td>
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<td>1959-62</td>
<td>Pre-College Enrichment Studies Program — &quot;Operation Second Chance&quot;</td>
<td>Fund for the Advancement of Education (Ford Foundation)</td>
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<td>Demonstration Center, New York State Associate Degree Nursing Program</td>
<td>Kellogg Foundation</td>
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<td>Work-Scholarship Programs</td>
<td>Grand Street Boys Foundation</td>
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<td>1961-62</td>
<td>Establishment of a Course in Nuclear Technology and Purchase of Equipment</td>
<td>Atomic Energy Commission</td>
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<td>1961-66</td>
<td>Development of Physics Teachers for the Secondary Schools (with City College)</td>
<td>National Science Foundation</td>
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<td>1962</td>
<td>Exploration of the architectural and engineering feasibility of a new air-space campus</td>
<td>Board of Estimate, City of New York</td>
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<td>1962-67</td>
<td>Closed-Circuit TV in Clinical Nursing Instruction: Development of Techniques</td>
<td>U. S. Public Health Service</td>
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<td>1964-67</td>
<td>Production of Video Tape Recordings for Closed-Circuit TV Nursing Instruction</td>
<td>U. S. Public Health Service</td>
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<td>1964-66</td>
<td>Undergraduate Instruction Program — Scientific Equipment</td>
<td>National Science Foundation</td>
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<td>1965</td>
<td>Development of Counseling Services</td>
<td>National Defense Education Act</td>
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<td>Year</td>
<td>Description</td>
<td>Funding Source</td>
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| 1965 | Equipment for programs in:  
|      | (a) Chemical Technology  
|      | (Plastics Technology)  
|      | (b) Electrical Technology  
|      | (c) Mechanical Technology | Vocational Education Act of 1963 |
| 1965 | Work-Study Program | State University of New York, under Vocational Education Act |
| 1965 | "Operation Giant Step" | U. S. Dept. of Health, Education & Welfare |
| 1965-66 | College Library Resources Program | Higher Education Act of 1965 |
| 1965-66 | College Work Study Program | U. S. Dept. of Health, Education and Welfare |
| 1965-67 | (A) Work Study Program  
| | (B) Project Budget for Technical Skills Center-Microelectronics  
| | (C) Research and Training Program in Industrial Technology | Vocational Education Act of 1963 |
| 1965-67 | Improvement of Clinical Nursing | Public Health Service Act - Research Grant |
| 1966-67 | Educational Opportunity Grant | Higher Education Act of 1965 |
| 1966-67 | Nurse Refresher Program | Occupational Training and Retraining, Manpower Development and Training Act |
| 1967-68 | "Training for Action in Consumer Education" | Higher Education Act of 1965 |
| 1967-68 | College Library Resources Program | Higher Education Act of 1965 |
| 1967-68 | Undergraduate Instructional Program — Scientific Equipment | National Science Foundation |
DEGREE PROGRAMS OFFERED
(Refer also to the Curricula, page 73)

Bronx Community College offers two types of degree programs:

I. Transfer Programs (generally leading to the Associate in Arts or A.A. degree)

Students who plan to continue their studies at a four-year college of liberal arts and sciences, education, business, or engineering should enroll in either a Liberal Arts and Sciences, Business Administration, Business Teaching, or the Engineering Science curriculum.

Graduates of these transfer programs at Bronx Community College are eligible for admission to the third year of the senior colleges of the City University, provided they have achieved a minimum scholastic index of 2.00. (See page 59.)

Admission to the School of Engineering at the City College is offered to graduates of the Engineering Science curriculum who have maintained a general scholastic index of 2.00, as well as the same minimum index as an average in their courses specifically in Chemistry, Engineering Graphics, Mathematics and Physics. Graduates of the Engineering Science program are eligible for admission to the New York University program in engineering, conducted in special cooperation with community colleges.

Graduates of the Pre-Pharmacy specialization in the Chemical Technology curriculum, though awarded the Associate in Applied Science degree (A.A.S.), are admissible to the third year of Columbia University College of Pharmacy and will be considered for admission to the third year of the College of Pharmacy of Fordham University or St. John's University.

Graduates of the Business Administration curriculum may transfer to the third year of the Bernard Baruch School of Business and Public Administration of the City College of the City University of New York.

Graduates of the Business Teaching curriculum will be eligible for transfer to the third year of the Business Education Curriculum at Hunter College or the Bernard Baruch School of the City College.

Graduates of the Performing Arts-Music Curriculum will be eligible for transfer to the New York College of Music. Upon graduation, the Associate in Applied Science degree (A.A.S.) is conferred.

Graduates of all the "transfer" programs are generally eligible for transfer to private four-year, undergraduate colleges.
Graduates of all the "transfer" programs are generally eligible for admission to State University of New York colleges as baccalaureate candidates, depending on the quality of the student's scholastic achievement.

In general, the four-year colleges prefer that a student be graduated from the two-year institution before admitting him by transfer. A student who plans to continue his education beyond the community college level is urged to confer with his faculty adviser early in his academic career. He may also communicate directly with the four-year college of his choice to investigate standards and procedures of admission.

2. Career Programs (leading to the Associate in Applied Science or A.A.S. degree)

These two-year programs combine career preparation with firm grounding in general education. The student is prepared to enter a career or vocational field as a competent technician, on a semi-professional level, or as an executive assistant with highly-developed skills.

Career programs are offered in the Business Curriculum with options and specializations in Accounting, Data Processing, Retailing and Secretarial Studies; in Chemical Technology, with a special option in Plastics; in Electrical Technology, and in Mechanical Technology; in Medical Laboratory Technology; and in Nursing.

Some four-year institutions of higher learning, both public and private, and including some State University colleges, will admit graduates of the career programs, granting varying amounts of advanced standing credit for work completed at the Bronx Community College. However, City University senior colleges will consider for admission as matriculants only those graduates of the career programs who have achieved a minimum 3.00 scholastic index. Others may sometimes continue their studies as non-matriculants in the City University senior colleges.
CURRICULA OF THE COLLEGE

The applicant to Bronx Community College may be admitted to one of the various curricula offered. Detailed descriptions of the requirements for the degree in the curricula (and options) appear in Section 6 page 73. Entrance requirements are detailed later in this section.

The following list summarizes the programs:

1. Business Administration
   - Transfer Program—A.A. Degree
   - For transfer to the Baruch School of Business and Public Administration of the City College of the City University of New York
   - Options: Accounting; Retailing

2. Business Teaching
   - Transfer Program—A.A. Degree
   - For transfer to Hunter College of the City University of New York
   - For students planning to teach Secretarial Studies, or Bookkeeping and Accounting on the secondary level

3. Business (Career)
   - Career Program—A.A.S. Degree
   - Options: Accounting, Retail Business Management, Executive Secretarial, Legal Secretarial, School Secretarial, Medical Secretarial Assistant
   - Data Processing
   - Options: Machine Operations and Programming

4. Chemical Technology
   - (a) Transfer Program (to a College of Pharmacy, only)—A.A.S. Degree
     - Option: Pre-Pharmacy
   - (b) Career Program—A.A.S. Degree
     - Options: Chemical Technology, Plastics Technology

5. Engineering Science
   - Transfer Program—A.A. Degree
   - The first two years of the Engineering sequence

6. Electrical Technology
   - Career Program—A.A.S. Degree

7. Mechanical Technology
   - Career Program—A.A.S. Degree

8. Liberal Arts and Sciences
   - Transfer Program—A.A. Degree
   - Transfer Program—A.S. Degree
9. Medical Laboratory Technology
   - Career Program—A.A.S. Degree

10. Nursing
    - Career Program—A.A.S. Degree

11. Performing Arts-Music
    - Transfer Program or Career—A.A.S. Degree for Transfer to the New York College of Music

12. X-Ray Technology
    - Career Program—A.A.S. Degree
EVENING AND CONTINUING EDUCATION

Courses in various curricula are offered both during the day and in the evening. Both matriculated and non-matriculated students (see page 53 for definition) may choose to attend individual day or evening classes. Registration for all classes is based on a priority through which matriculants and senior students get first choice. Non-matriculants, therefore, usually register for evening courses. (See Matriculation, page 46.)

The programs of non-matriculated students are subject to certain limitations, as described on page 47. Adults may take individual courses for career advancement or cultural growth.

A student may move forward at a specially adjusted pace in an evening or day program of classes at the College, even while employed. Some students make up previous educational deficiencies while taking college credit courses. Non-matriculated students who do well academically may gain matriculation according to the plan described on page 53. Some matriculated students prefer to complete all their requirements for the degree in evening study.

ACADEMIC STANDARDS & FEES

The academic standards affecting grades, scholarship, attendance and programs of students pertain to matriculated and non-matriculated students whether they attend day or evening classes, or both. It is recommended that students seek matriculation as early as possible, so they may enjoy the benefits of a balanced educational program and advance toward a degree. In addition, qualified matriculants enjoy free tuition privileges and academic advantages, such as priority of registration. Registration fees listed on page 41 are applicable to both Evening and Day Division students.

FACULTY

The instructional staff of the Evening and Continuing Education Division is composed of members of the full-time college faculty and of other qualified professionals, with approved experience, training and competence in appropriate fields.

PRE-NURSING

The required courses in Nursing Technology are offered during the day only. A special pre-Nursing Program is offered for non-matriculants in both day and evening classes for those who wish to earn matriculation status in the Nursing Curriculum.
ADULT STUDENTS

Adult students may qualify to take courses for purposes of vocational advancement, self-enrichment or personal growth, without following the requirements of a curriculum. They may choose evening classes to suit their convenience while working.

The Evening and Continuing Education Division is currently developing pilot programs in Consumer Education and Small Business Management. Other non-credit, adult programs are under consideration, and will be offered as soon as they are developed.

SUMMER SESSION

Bronx Community College students may pursue courses for advanced placement, acceleration of college standing, or for making up necessary work toward matriculation during the six-week Summer Session. The Summer Session is also open to students of other colleges who have special permission to attend. (See page 32.)

Announcements and a bulletin of courses offered in day and evening classes in the Summer Session are issued in the Spring by the College.

The free-tuition policy for matriculants does not necessarily apply during the Summer Session.

POST DEGREE STUDIES

A student awarded an associate degree by Bronx Community College may continue to attend only as a non-matriculant, unless he matriculates for an additional associate degree, by applying to the Registrar's Office. The student will be required to pay fees according to the Board of Higher Education Schedule of Fees.

EARNING A SECOND ASSOCIATE DEGREE

A student who completes a Career Program and gains the A.A.S. degree may return to Bronx Community College to earn the A.A. degree, if he is eligible for admission to the transfer curriculum of his choice.
THE NURSING CENTER

To Bronx Community College was recently added a unique and modern educational facility, devoted to the education of nurses. The Bronx Community College Nursing Center at the Bronx Municipal Hospital Center is a joint operation, based on an agreement between the Board of Higher Education and the Department of Hospitals, which has made possible an expanded program for the education of nurses at this unit of the City University of New York. It is rapidly becoming a prototype model for others in City University and is being hailed nationally.

The College operates the academic program at the Nursing Center; the Department of Hospitals participates in the administration of the Center. Representatives of the Board of Higher Education, the Bronx Community College, the Department of Hospitals, the Albert Einstein College of Medicine of Yeshiva University, the Bronx Municipal Hospital Center, and the professional field of Nursing Education, as well as other agencies of the community, are included in the Advisory Council for the Nursing Center.

The Nursing Program at BCC was instituted in 1959, with the award of a five-year Kellogg Foundation grant, setting up the College as a demonstration center for associate degree nursing education in the State of New York. Since 1962, further grants from the United States Public Health Service have enabled the College to experiment with and develop techniques for the use of closed-circuit television and video tapes in clinical nursing instruction. The closed-circuit television project has been conducted at the Montefiore Hospital in the Bronx, one of the cooperating hospitals in the Nursing program in which students receive clinical experience.

The new Nursing Center, opened in September, 1964, and officially dedicated in March, 1965, is a thirteen-story building on the grounds of the Bronx Municipal Hospital Center. Designed by Harry M. Prince, one of the architects engaged in designing the new "air-space campus" for the College, the Nursing Center contains a beautiful auditorium, modern classrooms, a library, laboratories, lecture halls, and conference rooms, as well as ten floors devoted to individual dormitory facilities. Recreational facilities include lounges, a music room, a swimming pool, a gymnasium and sports areas, and a spacious dining room with an adjoining terrace.

The Nursing Program, which is coeducational, offers the two-year Associate in Applied Science degree to its graduates. The students in this program are fully matriculated students of the College who enjoy free tuition and residence privileges, plus an annual scholarship grant from the City of New York to help offset educational and transportation expenses.
Within the Bronx Municipal Hospital Center grounds, in addition to the BCC Nursing Center, are found the Jacobi and Van Etten Hospitals; and located adjacent to them is the Albert Einstein College of Medicine of Yeshiva University—all of which combine to create an atmosphere conducive to the education of nurses.

**THE LIBRARY**

Chief Librarian and Associate Professor: Mr. Terry
Assistant Professor: Miss Baum, Miss Klymowycz, Mrs. Kolliner, Mrs. Lane
College Science Technician: Mr. Brooks, Mr. Levy, Mrs. Sexton.

At Bronx Community College, the Library is an integral part of the instructional program. It serves as a resource, a stimulus and a guide in the student’s quest for knowledge, both through its book and periodical collections and the audio-visual equipment provided.

The College Library at the Main Center, conveniently located on the first floor, provides a comfortable area conducive to reading, research and study, in connection with its collection and facilities.

The growing book collection of 20,000 volumes includes basic reference books for course study and reports. The Library receives over 200 periodicals covering a wide variety of subjects, and back files of selected journals are available on microfilm. There are, in addition, books for leisure-time reading and enjoyment, and a pamphlet file on topics of current interest.

The Library arranges appropriate exhibitions, prepared in cooperation with student groups and faculty. Discount tickets to various cultural events in the metropolitan area are distributed, in cooperation with student and faculty committees.

A branch library is maintained at the new Nursing Center. It is staffed and equipped to provide full service to students of nursing. Another branch is located at the Bronx High School of Science, in order to provide service to evening students attending classes there.

The audio-visual services of the College are offered and coordinated under the aegis of the Library staff. The Audio Laboratory is used especially in conjunction with foreign language, music, speech, English, and stenography courses. The Laboratory is equipped with tapes, recording and reproducing facilities, and phonograph record players. A collection of music and spoken records is available in the Laboratory for student listening.

All students receive an orientation lecture on the arrangement and use of the Library, as well as instruction in research procedures for the various courses and curricula. In addition, the Library staff provides reference aid for the individual reader, supplemented by subject bibliographies in individual courses.
DIRECTORY OF FACILITIES AND OFFICES

Auditorium
The spacious, attractive renovated Auditorium is located on the first and second floors of the Main Building. Its capacity of 980 enables its use for a wide variety of events including college convocations, students' curricular and extra-curricular activities, cultural programs, and community activities.

The Campus Shop
The bookstore, operated as a private concession under contract with the College, is located at 115 East 184th Street, across the street from the Main Building. It stocks all required and supplementary textbooks and supplies, in addition to greeting cards, records, stationery, college jewelry, sweatshirts, etc. Part of the bookstore's income goes to the Bronx Community College Association, Inc., which funds are used to support student activities.

Cafeteria
The cafeteria, located on the fifth floor, is operated on a concession basis for the convenience of students and faculty. In addition to the available meals, refreshments and snacks, receptions, teas and some large group meetings are held here. Students may bring their own lunches and use the table areas.

College Office at Bronx High School of Science
The College Administrative Office at the Bronx High School of Science, where the college conducts classes in the evening, is located on the second floor, Room 213.

Concourse Center
The Concourse Center, located at 2315 Grand Concourse, one block from the Main Building, provides additional facilities for day and evening classes.

Evening and Continuing Education Division
The Office of the Director of the Evening and Continuing Education Division is Room 5-8 of the Main Building. Office hours are 9 a.m. to 5 p.m., and from 6 to 10 p.m. on those evenings when classes are in session.

Faculty Offices
Many faculty and staff offices are located in the Main Building and in the Nursing Center. Additional faculty offices are located at the Concourse Faculty Offices Center, 2382 Grand Concourse at 184th Street, on the second floor.

Listing of faculty offices and office hours are posted on departmental bulletin boards and in the Office of the Dean of Faculty.
Health Service Department

On days when classes are in session, a registered nurse is on duty from 9 a.m. to 5 p.m., and from 6 p.m. to 10:30 p.m. in Room BM-6 in the basement-mezzanine of the Main Building. The College has a physician on call. The Nursing Center has a Health Service and a nurse on duty, as well as access to hospital facilities.

Lost and Found

Lost articles should be returned and claimed at the Guard’s desk on the main floor of the Main Building, or at the College Administrative Office in each of the centers.

Nursing Center

The many facilities of the Nursing School and Residence are listed on page 20 and in the Nursing Center Handbook, available for student nurses residing at that center. The Office of the Administrator of the Nursing Center is located on the first floor of that center.

Public Information Office

The Public Information Office is located in BM-4 of the Main Building. Information about cultural events and college activities are available from this office.

Student Council Office

The Student Council Office, located in Room 5-22, is the headquarters for the Student Council and other student activities.

Student Lounge

Students are invited to use and to enjoy this recreation area on the fifth floor of the Main Building during their leisure hours.

While food may not be eaten in the Lounge, clubs and other organized groups may seek special permission from the Coordinator of Student Activities to serve refreshments in the Student Lounge as part of a prepared program. The Student Lounge is, therefore, occasionally closed to general use in order to accommodate special, planned student or college meetings.

Student Publications Office

An office for student publications is located at 103 East 184th Street, directly across the street from the Main Building. The staffs of The Communicator, Genesis, and the Student Newsletter, as well as a complete photography laboratory, are housed here.

Swimming Pool and Gymnasium

The renovated swimming pool and modern gymnasium are used for Health and Physical Education classes; and are available for student and faculty recreational use during specified and announced hours.
SELECTED PUBLICATIONS OF BRONX COMMUNITY COLLEGE

Audio-Visual News—Published periodically by the Library. Information about new equipment, new teaching aids, and other pertinent news related to the Audio-Visual services are announced in this bulletin.

Bulletin of Information for Prospective Students—A summary of the pertinent facts and procedures regarding this college, designed to aid the prospective student and high school guidance counselors.

Catalog—Published periodically by the College, the catalog contains a statement of the philosophy and aims of the college, policies and procedures concerning student admission and maintenance of status, curricular offerings, and course descriptions. Supplements to the official catalog are printed as the need arises.

Curricular Brochures—Individual booklets and pamphlets describing the offerings and requirements of the curricula and programs of this college.

Faculty Bulletin—A bi-weekly publication for the Faculty from the Office of Public Information and Dean of Faculty containing announcements and information concerning academic and administrative matters, as well as interesting news about faculty activities and achievements.

Higher Education and You—A booklet describing the opportunities in higher education in the community, written and distributed by Bronx Community College as a service to high school students and their parents, and used throughout the nation.

Library Acquisitions—A monthly list of new books added to the Library collection.

Library Handbook—A guide for students in the use of the Library and all its resources, with a section on how to do a library research project.

Nursing Center Handbook—A booklet especially for student nurses who live and study at the Nursing Center, offers helpful information for the resident students and provides them with the regulations in effect at the Nursing Center.

Student Handbook—Prepared annually by the Department of Student Personnel, this handbook contains information and material a student needs to know regarding his life and work at this college. Academic procedures are detailed, rules and regulations are described, clubs and organizations are listed, as well as a directory of faculty and other college officials and personnel.
Stylebook: A Guidebook to Writing Papers—A manual for students, sponsored by the English Department, for writing term and research papers.

STUDENT PUBLICATIONS:

The Communicator—The bi-weekly student newspaper. A student staff is responsible for this newspaper which is the student voice of the campus.

The Evening Reporter—A bulletin published periodically by the Evening Student Council to serve the needs of those students who attend classes at the college mainly in the evening. It contains news and information about social and academic matters.

Genesis—The annual yearbook. This publication is prepared by a staff of senior students and contains a pictorial and narrative presentation of life at the college during the year, and the history of the graduating class.

Gleanings—The semi-annual literary magazine. Gleanings is published each semester and contains selections in prose and poetry, as well as artistic expression.

The Student Newsletter—A weekly bulletin published by the Day Student Council containing important announcements and information regarding college activities and academic matters.
THE INTERNAL STRUCTURE OF MATERIALS

Understanding the internal structure of materials is crucial for many applications, ranging from the design of new materials to the optimization of existing ones. This involves examining the atomic and molecular arrangements that give rise to the physical properties of materials. The study of materials science is interdisciplinary, encompassing aspects from chemistry, physics, and engineering.

One of the key techniques used in materials science is X-ray diffraction (XRD). XRD provides information on the crystal structure of materials, which is fundamental for understanding their behavior under various conditions. By analyzing the diffraction patterns, scientists can determine the phases present, their crystallographic orientation, and even the presence of defects in the crystal lattice.

In addition to XRD, other methods such as electron microscopy, Raman spectroscopy, and neutron diffraction are also employed to investigate the internal structure of materials. These tools allow researchers to visualize atomic and molecular arrangements with unprecedented detail, enabling the development of新材料 with tailored properties.

The ongoing research in materials science is driven by the need to address the challenges of sustainability, energy efficiency, and performance in a variety of industries. From aerospace and automotive to electronics and construction, the development of new materials is crucial for driving innovation and progress.
ADMISSION
TO THE
COLLEGE
All inquiries and information pertaining to admission to the College should be addressed:

THE DIRECTOR OF ADMISSIONS
Bronx Community College
The City University of New York
120 East 184th Street
Bronx, New York 10468

Phone: WEllington 3-7000

OFFICE HOURS:
Monday through Friday ........................................ 9 A.M.-5 P.M.
Registration Hours .............................................. 9 A.M.-5 P.M.
Saturday, Sunday and Official Holidays........... closed
Summer Hours .................................................... 9 A.M.-4 P.M.

ADMISSION

An applicant for admission to Bronx Community College may be approved for one of the programs offered by the College if he fulfills all the requirements for entrance into the program of his choice. The information in the following pages will help the applicant with admission procedures.

Admission to a program at Bronx Community College is based on specific criteria used by the Committee on Admissions to appraise a student's academic potential.

Applicants for admission must present evidence of successful academic preparation for their selected curriculum. The applicant's high school record must show satisfactory completion of the required academic units, distributed according to the chart on page 30.

A student admitted on the basis of a New York State Equivalency Diploma or foreign credentials must present evidence of successful completion of the required foreign language, mathematics and science units where the curriculum calls for them.

An applicant with a deficiency of not more than one required unit, whose overall record indicates strong potential, may be accepted on the condition that the unit deficiency be removed within the time specified by the Committee on Admissions.
ADMISSION AND PLACEMENT TESTS

An applicant for admission to any program leading to a degree is required to take certain admissions and placement tests. Students must bring to registration all notices received as a result of placement tests taken at the college. The applicant will receive an announcement of dates for the placement tests.

Scholastic Aptitude Test (CEEB-SAT)

Applicants for admission to the TRANSFER CURRICULA (Liberal Arts and Sciences, Engineering Science, Business Administration, and Business Teaching) are required to take the College Entrance Examination Board-Scholastic Aptitude Test (CEEB-SAT). Application for the CEEB-SAT should be made directly to the COLLEGE ENTRANCE EXAMINATION BOARD, Box 592, Princeton, New Jersey. A candidate should apply early and list the City University of New York (NOT Bronx Community College) as his college of first choice for reporting the score.

Candidates for September admission are required to take the CEEB-SAT the preceding December; for February admission, the preceding May or July. Results of tests taken at other times may be considered, if the results reach the Committee on Admissions in time for evaluation with the candidate's Application for Admission. Candidates for admission to the CAREER AND TECHNOLOGY CURRICULA who are considering a transfer program as an ultimate possibility are encouraged also to take the CEEB-SAT.

BCC Placement Tests

After admission, students are given a battery of placement tests in English, mathematics, foreign languages, and business subjects, according to college and curricular requirements. These tests are used as a basis for proper assignment to college-level study. Notification for taking these tests is sent to the student.

Test of English as a Foreign Language (T.O.E.F.L.)

The "Test of English as a Foreign Language" is required of all foreign students applying to Bronx Community College as their original college. Any student applying with advanced standing who fulfills the formula for matriculation, or who has demonstrated ability by his performance at another college, shall be exempt from taking T.O.E.F.L. Application and information may be obtained by writing to:


Designate Bronx Community College as the college to which scores should be sent.
## REQUIRED HIGH SCHOOL UNITS FOR ADMISSION AS MATRICULANTS IN PROGRAMS LEADING TO

### A.A. DEGREE (Associate in Arts) Transfer Programs

### A.A.S. DEGREE (Associate in Applied Science) Career Programs

<table>
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<th>For Admission to the program or curriculum in:</th>
<th>AMERICAN HISTORY</th>
<th>ENGLISH</th>
<th>FOREIGN LANGUAGE</th>
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Note: All units are minimum required. Additional units are recommended for a well-rounded education.
EXPLANATIONS

*(1) Applicants with lesser qualifications or with a deficiency in a required unit, but meeting all other entrance requirements with indications of strong potential, may be accepted on condition or probation. The condition must be removed within the time specified by the Committee on Admissions.

(2) Applicants with Equivalency Diplomas must complete requirements in FOREIGN LANGUAGE, MATHEMATICS, AND SCIENCE BEFORE THEY CAN BE CONSIDERED FOR MATRICULANT STATUS.

** This program leads to the third year at the Baruch School of Business of City College of the City University of New York.

x This program leads to the third year at Hunter College of the City University of New York.

§ The Pre-Pharmacy option leads to the third year of College of Pharmacy, Columbia, St. John's, or Fordham Universities.

*** Applicants must meet special standards in musical aptitude and the ability, as well as demonstrate proficiency in vocal or instrumental areas, to be determined by tests, auditions and interviews conducted by faculty of the Bronx Community College and the New York College of Music.

† For transfer to the CCNY School of Engineering, 2 units of language are required for admission. These can be taken at Bronx Community College, if the student lacks them in his high school preparation.

$ Courses in General Science and Biology are required.

$ Explanation of MATHEMATICS UNITS:

<table>
<thead>
<tr>
<th>Units</th>
<th>Mathematics</th>
<th>Science</th>
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<tr>
<td>1 Unit</td>
<td>9th Yr. Math (Elem. Algebra)</td>
<td>Chemistry required; Biology very strongly recommended</td>
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</table>

† Required units of Mathematics and Science for admission to the Nursing Program.
ADMISSION PROCEDURES AND REQUIREMENTS

1. APPLICATION FOR ADMISSION

The following application procedures for admission to Bronx Community College should be followed:

Admission as a freshman (no previous college experience):

A City University application form must be obtained from the applicant's high school guidance counselor, or secured by mail from the UNIVERSITY APPLICATION PROCESSING CENTER, Box 148, Vanderveer Station, Brooklyn, New York 11210, and filled out and returned, according to the instructions printed thereon, accompanied by application fee and high school transcript.

Admission on Transfer From Another Collegiate Institution, With Advanced Standing (all applicants with previous college experience):

An application form must be obtained from the Admissions Office, Bronx Community College, and filled out and returned, accompanied by application fee. Transcripts of high school and previous college work must be arranged for by the applicant, to be sent in, to complete application. (See also Advanced Standing Admission, page 33.)

Foreign Students, Students with Equivalency Diplomas, or Reactivated Applicants:

Application forms must be obtained from the Admissions Office, Bronx Community College. (See also Foreign Students, page 34.)

2. APPLICATION FEE

All applications must be accompanied by checks or money orders for $4.00, made out to City University of New York. (Instructions for submitting the fee are included with the application forms.)

3. DEADLINES FOR APPLICATIONS

All applications must be submitted by deadline dates: January 15 for the Fall Semester, and October 15 for the Spring Semester.

4. RESIDENCE LAWS AND TUITION FEES

Specific tuition fees are dependent on place of legal residence (with the exception of matriculants in Nursing, who attend tuition-free regardless of place of residence).

The New York State Education Law (Section 630, Paragraph 4) defines a New York State Resident as "a person who has resided in New York State for a period of at least one year and in the county for a
period of at least six months, both immediately preceding the date of such person's registration in a Community College."

All New State residents who reside outside of New York City and plan to register at Bronx Community College must complete Residence Forms B 80 and B 81, available in the Bronx Community College Admissions Office. Form B 81, Certificate of Residence, should be returned to the Bronx Community College Business Office before registration. New York State residents who live outside New York City, but do not submit the required forms, will be charged non-resident fees. (See Tuition and Fees Schedule, page 41.)

5. HEALTH AND PHYSICAL STANDARDS—MEDICAL EXAMINATION FORMS

All students, matriculants and non-matriculants, are required to meet health and physical standards of the College, and must submit, as part of the application, a medical examination report on the form provided by the College. Final admission requires approval by the College of the student’s ability to meet the health and physical standards of the College set by its Committee on Admissions, including a special physical examination in the Nursing program, given in cooperation with the Department of Hospitals of the City of New York.

6. HOUSING FACILITIES

Dormitory facilities are available only for matriculants in the Nursing Curriculum.

ADVANCED STANDING ADMISSION

An applicant who has previously attended another college, university or nursing school must report that fact in his application and have the institution submit an official transcript including an official statement of the conditions of withdrawal directly to the Admissions Office. Even if attendance at such a college was for a short period of time, and no grades are recorded, a certificate of honorable dismissal is required.

A student seeking advanced standing must have his records evaluated by the Bronx Community College to determine matriculation status and remaining requirements for the degree. A student is allowed a maximum of 30 credits advanced standing (transfer credit) in equivalent courses completed at accredited institutions of collegiate rank. The total number of credits allowed toward the associate degree by BCC may not exceed 30, regardless of whether the courses were taken at other institutions before admission, during attendance at, or after leaving Bronx Community College. Only courses passed with a minimum grade of C will be accepted from other institutions,
except that grades of D received in equivalent courses taken in colleges of the City University will receive full transfer credit.

Grades of D received by students in colleges other than those of the City University of New York in courses equivalent to those in a Bronx Community College curriculum may not receive credit toward the associate degree. However, they do earn exemption from repeating such courses. These grades are calculated in the student's scholastic index, but the courses and credits are not creditable toward his degree except as indicated above.

Courses passed at BCC or another college with a grade of D or higher may not be repeated, except as an auditor (no credit) or with special permission. A student is permitted to repeat only once any courses he has failed.

FOREIGN STUDENTS

Applicants from other countries, applying on the basis of foreign credentials, must submit to the Admissions Office certified copies of official records of all past schooling at least two months before the deadline for applications.

In order to determine the applicant's mastery of the English language, the college requires all foreign students to take the "Test of English as a Foreign Language." (See Admission and Placement Tests, page 29.)

Any applicant with advanced standing who fulfills the formula for matriculation, or who has demonstrated ability by his performance at another college, shall be exempt from taking T.O.E.F.L.

There are no housing facilities for students, except for those who are matriculated in the Nursing Program. Prospective students must give written evidence, along with their application, of their residence plans, means of supporting themselves and of paying tuition while in the United States. A limited number of qualified students from other countries are admitted tuition-free.

Applications of students from other countries must be sent directly to the Office of Admissions at Bronx Community College, (and not to the University Application Processing Center, as is true of all other freshmen applications). The "I-20" form (required by the U.S. Immigration Office) is issued only to students who have been accepted as full-time matriculants.
New York State Equivalency Diploma

Students applying on the basis of a New York State Equivalency Diploma must submit:

a. copies of the Equivalency Diploma and General Educational Development Test Scores, and

b. official copies of any high school or college records they may have accrued.

Those applying on the basis of the New York State High School Equivalency Diploma must have the necessary high school units (and S.A.T. scores if applying to a transfer program) and attain a total minimum raw score of 300 on the five General Educational Development Tests in order to be admitted as a matriculated student.

Those applicants who do not meet the standards for admission as a matriculant may enroll in the college as non-matriculants and prove themselves by gaining matriculation through the formula. (See page 52.)
3

RECORDS AND REGISTRATION
REPOSITORY OF RECORDS

The Registrar's Office (Room 1-35, Main Building) is the repository of the student's college records.

The Registrar's Office will supply information to students about grades, scholastic indexes and remaining requirements for graduation. Grade reports which include information on scholastic index and matriculation status are mailed or distributed to each student.

STUDENT IDENTIFICATION NUMBER

When he registers for the first time, a student receives an identification number, which he carries with him as his permanent student number for the duration of his stay at the College. This number is recorded on the Bursar's Receipt and I.D. card.

Each student receives an I.D. card with his picture and student number on it, for security purposes. A student must carry his I.D. card at all times for purposes of identification. The I.D. card is also used as a Library card in the College. A replacement fee is charged for lost or mutilated cards.

TRANSCRIPTS

Transcripts may be requested from the Registrar's Office (Room 1-35) on the special form provided by that office. There is a charge of $1.00 for each transcript requested to be sent, except that transcripts to be sent to Colleges of the City University of New York are forwarded free of charge.

Transcripts are not sent automatically at any time, whether for transfer, employment, or any other reason; each must be specifically requested. Transcript requests cannot be processed during examination or registration week.

Transcript requests may also be filed at the College Administrative Office (Room 213) at The Bronx High School of Science.
REGISTRATION

All students must register for courses during the official registration period each semester, and at the time designated for that student's classification. The "Registration Guide and Schedule of Classes" is published several weeks before the announced registration period.

Students are advised to appear for registration, with appropriate credentials, at the time specified in order to take advantage of their registration priority. Late registrants (those registering after the close of the official registration period) will be charged a late registration fee. The College reserves the right to cancel late registration.

EARLY REGISTRATION

At a designated time during the semester, matriculated students are required to indicate the courses they plan to take during the following semester. The Counselor should be consulted at this time to determine the next appropriate steps in his program. Since early registration involves reserving space in desired courses, and planning for the subsequent semesters, matriculant students should take advantage of early registration and consult with their Counselor who must approve and sign their early registration forms. In other words, matriculants who registered early through their Counselors at the time specified, will have priority for courses at registration time.

The early registration periods and procedures will be announced during the semester.

COUNSELING AND ADVISEMENT FOR REGISTRATION

Advisers from all curricula offered in the College are available during the registration period. All students must have their programs approved by Faculty Counselors either before or during Registration. Counselors of the Department of Student Personnel are available by appointment throughout the semester. Appointments to see Counselors may be made in the Office of the Counseling and Advisement Program at the Concourse Faculty Offices. (See also page 63.)

AUDITING CLASSES

A student may audit a course only with official approval. An Application to Audit form is available from the Registrar's Office. Approval is required of the Head of Department. Consideration of the student's course load for the semester will be given before any approval to audit is granted.
After permission to audit has been received, an auditor-student must register for the audit class in the same manner and at the same time prescribed for regular classes, and he must pay required fees as if he were registering for credit in the course. Once registration is completed as an auditor, no credit will be granted retroactively for that course during that semester.

Auditors are required to observe attendance regulations of the College and must participate in class to the extent deemed reasonable, desirable, and necessary by the instructor.

REQUESTS TO TAKE COURSES AT OTHER COLLEGES

A student desiring to take a course or courses at another college or at another unit of the City University while matriculated at Bronx Community College must fill out the required Permit Form issued by the Office of the Registrar, where permission will be granted according to College regulations. Such permission is granted only to matriculated students in good academic standing (2.00 or higher) and for justifiable reasons, such as a course not being offered at BCC.

STUDENTS ON PERMIT FROM OTHER COLLEGES

Students from other colleges are advised to secure written permission from their home colleges before applying to register for any courses at BCC.

City University of New York associate degree matriculants with permits may, subject to prior approval of the BCC Registrar, register at a time reserved for BCC Matriculants in the Registration Schedule. However, baccalaureate matriculants from City University senior colleges will be required to pay non-matriculant fees.

Students with permits from colleges not of City University must all register as non-matriculants regardless of status in their own colleges.

MILITARY SERVICE

Special academic standing and military refund regulations apply to students who enlist, or are called to serve, in the Armed Forces of the United States (see page 43). These students must present evidence of enlistment or induction immediately.

VETERANS’ AFFAIRS AND SELECTIVE SERVICE

Information and advice concerning veterans’ affairs and selective service requirement will be furnished by the Registrar’s Office.

All students planning to receive education benefits under “G.I.” Bills must make this known to the Veterans’ Adviser in the Registrar’s Office.
during the first week of classes. However, application for education and training benefits under the "G.I." Bills must be made directly to the Veterans' Administration.

Students approved by the Veterans' Administration for benefits must report for signing of monthly certification as instructed by the Veterans' Adviser.

TUITION AND OTHER FEES

All fees must be paid in full at the time of registration. Where tuition fees are reduced by place of residence, legal proof of such residence may be required to establish eligibility. (Any arrangements for loans or applications for loans or grants must be completed in advance of registration. For Financial Aid and Assistance, see page 64.)

GENERAL FEES

(Payable by all students—matriculated and non-matriculated.)

1. Full-time students (12 or more credits)  
   (Includes registration, library, laboratory, audio-laboratory, break-age, malpractice insurance, student activities and graduation fees.) $25.00/Sem.

2. Part-time students (fewer than 12 credits)  
   (Includes registration, library, laboratory, audio-laboratory, break-age, student activities, and graduation fees.) $13.00/Sem.

SPECIAL FEES

(For all students—matriculated and non-matriculated.)

1. Application for Admission  
   a. This fee is payable to the University Application Processing Center for applications processed by that office. $4.00
   b. This fee is paid to Bronx Community College by applicants processed by the college.

2. Transcript and Duplicate Record  
   (No charge for transcripts sent to colleges of the City University of New York.) $2.00

3. Make-up and Special Examinations  
   (Maximum fee of $15.00 for three or more examinations during one semester.) $5.00

4. Late Registration  
   $5.00

5. Change of Program (Schedule of Classes)  
   $5.00

6. Duplicate I.D. Card Fee  
   $2.00

7. Duplicate Record  
   $1.00

TUITION FEES

Matriculated Students—Full-time (12 or more credits)

1. Residents of New York City  
   Free Tuition*

2. Non-Residents of New York City:  
   b. Residents of N.Y. State without Certificate of Residency $400/Sem.

3. Non-Residents of New York State $400/Sem.

4. In the Nursing program, regardless of residence  
   (Nursing matriculants who are residents of New York State, outside of New York City, must file a Certificate of Residence with the Business Office.) Free Tuition
Matriculated Students — Part-time (fewer than 12 credits)

1. Residents of New York City: Free Tuition**
2. Non-Residents of New York City:
   a. Residents of N.Y. State with Certificate of Residency $10/contact hr.
   b. Residents of N.Y. State without Certificate of Residency $20/contact hr.
3. Non-Residents of N.Y. State $20/contact hr.
4. In the Nursing program, regardless of residence Free Tuition
   (Nursing matriculants who are residents of New York State, outside of New York City, must file a Certificate of Residence with the Business Office.)

Non-Matriculated Students

Residents of New York State $15/contact hr.
Non-Residents of New York State $20/contact hr.

NOTE: Non-matriculants who are residents of New York State outside of New York City may not register without Certificate of Residence on file in the Business Office.

* Matriculated Students—Full-Time

For all courses up to 3 credits beyond the degree requirement.

Exceptions:
1. For any student who has received one Associate Degree from any college of the City University, either wholly or partially tuition free, $200.00 per semester.
2. For a student who has commenced work on an Associate Degree and has changed his degree objective more than once, $200.00 per semester.
3. A student exceeding by more than 3 credits earned the number of credits required for a degree, $15 per contact hour for those credits in excess of 3 above the degree requirement.

** Matriculated Students—Part Time

For all courses up to 3 credits beyond the degree requirement.

Exceptions:
1. A student who has received one Associate Degree from any college of the City University, either wholly or partially tuition free—$10 per contact hour.
2. A student who has commenced work on an Associate Degree and has changed his degree objective more than once, $10 per contact hour.
3. A student exceeding by more than 3 credits earned the number of credits required for a degree, $15 per contact hour for those credits in excess of 3 above the degree requirement.
REFUND OF TUITION AND OTHER FEES

a. Non-Military:

Upon approval of a written application for withdrawal, a refund of tuition fees be made as follows:

<table>
<thead>
<tr>
<th>Withdrawal from class before the scheduled date</th>
<th>Other Than</th>
<th>Summer Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>of the session</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Withdrawal within one week after scheduled</td>
<td>75%</td>
<td>50%</td>
</tr>
<tr>
<td>opening date of the session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawal during the second week after</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>scheduled opening date of the session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawal during third week after scheduled</td>
<td>25%</td>
<td>None</td>
</tr>
<tr>
<td>opening date of the session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawal after completion of third week after</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>scheduled opening date of session</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A full (100%) refund of tuition, non-instructional and General Fees (where applicable) will be made in the event that: (1) courses are cancelled by the college; (2) a student's registration is cancelled by the college.

Laboratory fees shall be refundable only at the discretion of the President or his designee(s).

b. Military:

The following principles govern refunds made on application claiming military service:

1. Military service must be documented with a copy of induction of military orders.

2. In order to obtain a grade, a student must attend approximately thirteen (13) weeks (five weeks for summer session). No refund will be made to a student who has been assigned a grade, regardless of whether the grade is passing or failing.

3. In instances where students do not attend for a sufficient time to qualify for a grade but continue in attendance to within two (2) weeks of induction, refund of tuition and all other fees except application fees will be made in accordance with the following principles:

| Withdrawals before the beginning of the fifth calendar week (third calendar week for Summer Session) after scheduled opening date of session | 100% |
| Withdrawal thereafter                                                                 | 50%  |
4

ACADEMIC POLICIES AND PROCEDURES
COMMITTEE ON ACADEMIC STANDING

The Committee on Academic Standing represents the College faculty in matters pertaining to the quality of scholarship and standards of academic excellence at the College.

A student may appeal to or request the Committee on Academic Standing to consider such matters as matriculation status, permission to carry extra credits, permission to make course substitution, waivers of specific requirements, or for reconsideration of a grade.

All requests to the Committee should be in writing, clearly stating the nature of the request. The letter should be addressed to the Registrar, who is the Executive Secretary of the Committee on Academic Standing.

MATRICULATION

Upon admission to the College, a student is designated as matriculated or non-matriculant according to standards set by the Committees on Admissions and Academic Standing. Matriculation status, and a student's candidacy for a degree, are determined by academic potential and qualifications as evidenced by achievement in high school or college, and on admission examinations.

The student's matriculation status determines the course load he may carry during a semester, the order of priority in registration, and his qualification for free tuition, if he is a New York City resident.

Official determination of scholastic index and certification of matriculation classification of students already in attendance are made by the Registrar's Office, in accordance with standards set by the Committee on Academic Standing.

CLASSIFICATION AND CATEGORIES (DEFINITIONS)

Matriculated Student:

A student who is a candidate for an associate degree, has met the college admission requirements by offering satisfactory high school scholastic attainment in prescribed units, and has achieved adequate entrance examination scores is classified as a matriculant. A student remains in this classification as long as he pursues continuous academic work on a regular basis in the sequence of prescribed courses in his curriculum, and maintains a satisfactory scholastic index, in accordance with the requirements of the INDE CLASSIFICATION CHART shown on page 48.
A matriculant may carry a full or part-time program of courses leading to a degree, and may register for day and/or evening classes, according to his choice and the availability of class space. Matriculants have priority in the registration schedule according to seniority determined by credits taken in college. A full-time course load generally does not exceed sixteen credits, or the number listed for that semester of the curriculum in the Curriculum Patterns (pages 73 to 111).

Residents of New York City classified as matriculants attend tuition-free. Non-residents of New York City must pay tuition according to the Fee Schedule on page 41, unless they are matriculants in the Nursing curriculum.

Non-Matriculated Student:

A classified non-matriculant is a student who has failed to gain matriculant status because his records in high school or his College Entrance Examination Board or other Admissions Tests were below the standards set for matriculation, or who has lost matriculation after once having been granted that status.

An unclassified non-matriculant is a student who either presented incomplete records for admission, or applied too late, or had high school conditions (deficiencies in mathematics, science or foreign language), or who had transferred from another college with an unsatisfactory record.

A non-matriculant may take a maximum program of two courses (not to exceed 10 credits), or if more than two courses, then not to exceed 6 credits. Any non-credit course taken to remove an entrance condition (deficiency) is considered a part of the program weight.

A non-matriculant is a part-time student, pays tuition, and generally can take courses only in the evening. If space is available in day classes, it may be possible to take one or both courses during the day. Availability of space in the day classes is not known until registration time for the non-matriculant.

Appropriate, degree-credited courses successfully completed as part of a well-balanced program (see page 52) can be applied towards the Associate Degree requirements, once the student becomes matriculated.

High school graduates and qualified adults who are not active candidates for a degree but wish to enroll in courses without being bound to the requirements of a degree program are designated as unclassified non-matriculants.
INDEX CLASSIFICATION (ACADEMIC STANDING)

In order to determine the student's eligibility to maintain his matriculation status as well as his maximum course or credit load for the subsequent semester, the following chart is used.

<table>
<thead>
<tr>
<th>Total Credits Taken</th>
<th>Limited program must be assigned if cumulative index is lower than that listed</th>
<th>Loss of current matriculant (or non-matriculant) status</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-11 1/2</td>
<td>No reclassification made at this stage.</td>
<td>1.50</td>
</tr>
<tr>
<td>12-18 1/2</td>
<td>1.80</td>
<td>1.70</td>
</tr>
<tr>
<td>19-36 1/2</td>
<td>1.85</td>
<td>1.90</td>
</tr>
<tr>
<td>37-54 1/2</td>
<td>2.00</td>
<td>1.98**</td>
</tr>
<tr>
<td>55 and above</td>
<td>2.00</td>
<td></td>
</tr>
</tbody>
</table>

* A student who loses matriculant status or the privilege of a full program may regain this status by achieving a cumulative index equal to or higher than that indicated in this column for the individual student's "Credits Taken" category.

** The records of matriculated students who have taken 55 or more credits and achieved a cumulative index of 1.95-1.97 are reviewed by a sub-committee of the Committee on Academic Standing before any change of classification is made and before the student may re-register.

In the interpretation and application of the chart above, the policy is based on these factors:

a. A cumulative index of 2.00 is the minimum requirement for the degrees of A.A. and A.A.S., and for satisfactory current achievement.
b. Dean's List and other honors are awarded for scholastic achievement of 3.00 or better.
c. A student is given an opportunity to prove himself academically for the first 11 1/2 credits.
d. Achievement in the Summer Session is included in determining status.
e. A student may, with the permission of the Faculty Committee on Academic Standing, take 10 elective credits beyond the requirement for the degree as a non-matriculated student in order to attain the minimum required scholastic index of 2.00 for graduation, only when the possibility of attaining this index is evident.
f. Matriculants with cumulative index below that listed in the "Loss of Current Matriculant or Non-Matriculant Status" column become non-matriculants. Students who lose matriculant status may regain this status by attaining a minimum (or higher) cumulative scholastic index as listed for their "Credits Taken" category.
g. Non-matriculants with cumulative index below that listed in the "Loss of Current Matriculant or Non-Matriculant Status" column may be...
academically suspended for one semester; such suspension is automatically waived if the student achieves a current semester index of 2.00. Students who are reinstated after one semester of academic suspension and subsequently fail to earn a 2.00 semester index may be permanently suspended thereafter.

GAINING MATRICULATION

Unclassified Non-Matriculants

An unclassified non-matriculant may attain matriculant status by re-classification by the Registrar’s Office. After all required official records are submitted, and if such records indicate that the student had met all the requirements for matriculation (including health and physical) set for the date of the student’s initial application for admission to the College by the Committee on Admissions, and he has made up any deficiencies or conditions that previously prevented matriculation status, and he has maintained satisfactory college achievement, his status may be adjusted. (An unclassified non-matriculant may become a matriculant directly or become a classified non-matriculant first.)

Classified Non-Matriculants

A classified non-matriculant may earn matriculation status by reclassification by the Registrar’s Office based on evidence that the student has completed all high school admission units required for his curriculum, has taken all tests required of applicants for matriculation, and has attained a minimum scholastic index of 2.50 in an approved well-balanced program (see page 52) of 12* degree credits successfully completed, or a minimum scholastic index of 2.00 in an approved well-balanced program of 24** degree credits.

CHANGE OF MATRICULATION CLASSIFICATION

Students who believe they qualify for a change in their matriculation classification or who believe an error has been committed, including the regaining of matriculation status or the initial attainment of matriculated status, should apply to the Registrar’s Office for re-evaluation of their status.

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*At least the last 6 credits must be taken at BCC.
**At least the last 12 credits must be taken at BCC.
ACADEMIC SUSPENSION

Academic suspension occurs when a student fails to earn and maintain the required scholastic index in order to continue his enrollment in the College. (See Index Classification, page 48.)

Suspension for One Semester

A non-matriculant with cumulative index below that listed in the index classification chart in the "Loss of Current Matriculant or Non-Matriculant Status" column (for the appropriate number of credits taken) may be academically suspended for one semester. Such suspension is waived if the student achieves a current semester index of 2.00.

When received at the conclusion of the Fall Semester, the suspension applies to the following Spring Semester; when received at the conclusion of the Spring Semester, the suspension applies to the subsequent Summer and Fall Semester. Appeals from suspension must be directed to the Committee on Academic Standing.

An Application for Reinstatement after suspension must be made to the Registrar. The deadline for receipt of the application is August 15 for the Fall Semester, December 30 for the Spring Semester, and April 15 for the Summer Session.

Permanent Suspension

A student who is reinstated after one semester of academic suspension, and subsequently fails to earn a 2.00 semester index, is permanently suspended thereafter.

A student permanently suspended is barred from taking courses for credit. However, such student may apply for permission to take one course at a time as an auditor. Application for such permission is to be made to the Registrar, who will refer the student’s request to the Head of Department in which the course is given, for approval. (A student who is permanently suspended and who applies for permission to audit may be permitted to audit two courses only if the two courses involved are shorthand and typing, and if the Head of Department deems it advisable for the student to audit two courses simultaneously.)

RE-ADMISSION

After one or more semesters of absence or after academic suspension from the College, a student must apply for reinstatement to the Registrar on the official form provided for that purpose. A completed Medical Form must be submitted along with the Application for Admission before reinstatement will be approved. The deadline for the receipt of applications for reinstatement to the Fall Semester is August 15; to the Spring Semester, December 30; to the Summer Session, April 15.
REMOVAL OF ENTRANCE CONDITIONS

A student lacking the required high school units for admission to his curriculum may be admitted to the college with conditions. After admission, he must take at least one condition make-up course per semester until all conditions are removed. Such courses count as part of the maximum program load each semester, although not creditable toward a degree. Grades in credit courses taken to remove conditions will be included in the scholastic index, although they are not creditable toward the degree. Grades in non-credit courses are not included in the scholastic index.

FULL-TIME STATUS

Full-time students are those matriculants who are taking at least 12 credits or the equivalent in program load. Matriculants taking fewer than 12 credits or the equivalent are not considered full-time, for purposes of New York State Regents Scholarships, Scholar Incentive Awards, Selective Service, United States Immigration Service, etc.

For purposes of Selective Service, State Scholarships, and foreign student visa status, a student must be carrying a full-time load or its equivalent.

DEGREE REQUIREMENTS

The required courses for the various degrees are listed in the section on the Curricula and Programs (See pages 73-111).

The student is responsible for ascertaining and completing all the requirements for the degree for which he is a candidate at the time he matriculates. He is required to complete all courses prescribed by his curriculum before active candidacy and consideration for a degree can be entertained.

Courses taken to remove entrance unit deficiencies (conditions), and those courses recommended as a result of Placement Examinations which are not part of the degree course requirements in the curriculum, are not creditable toward the degree and are not considered in calculating the minimum and maximum credits required for the degree.

A cumulative index of 2.00 is required for the Associate Degree. Candidates for the degree must be approved by the Faculty for submission to the President and the Board of Higher Education as worthy, meritorious and deserving, including moral and character qualifications in their record.
THE WELL-BALANCED PROGRAM FOR PART-TIME STUDENTS

To attain or maintain matriculated status, students must select their courses so as to include a balance of work selected from the areas enumerated below for the different curricula, in each group of 12 to 14 degree credits.

<table>
<thead>
<tr>
<th>Curriculum:</th>
<th>Courses or Areas</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Admin.</td>
<td>Mod. Lang.</td>
<td>Major Area</td>
<td>English</td>
</tr>
<tr>
<td>Business (Career)</td>
<td>Math (not Business)</td>
<td>Major Area</td>
<td>English</td>
</tr>
<tr>
<td>Business Teaching</td>
<td>Mod. Lang.</td>
<td>Major Area</td>
<td>English</td>
</tr>
<tr>
<td>Chem. Tech. (incl. Pre-Pharm.)</td>
<td>Math</td>
<td>Science</td>
<td>English</td>
</tr>
<tr>
<td>Eng'g. Sci.</td>
<td>Math</td>
<td>Science</td>
<td>English</td>
</tr>
<tr>
<td>Elec. Tech.</td>
<td>Math</td>
<td>Physics</td>
<td>Major Area</td>
</tr>
<tr>
<td>Mech. Tech.</td>
<td>Math</td>
<td>Physics</td>
<td>Major Area</td>
</tr>
<tr>
<td>Lib. Arts and Sci.</td>
<td>Mod. Lang.</td>
<td>Math or Science</td>
<td>English</td>
</tr>
<tr>
<td>Medical Lab. Tech.</td>
<td>Math</td>
<td>Science</td>
<td>English</td>
</tr>
<tr>
<td>X-Ray Tech.</td>
<td>Math</td>
<td>Science</td>
<td>English</td>
</tr>
</tbody>
</table>

CHANGE OF CURRICULUM

A student contemplating a curriculum change should explore the possibilities and realities of the change with his counselor, to determine the degree requirements, prerequisites, and suitability of the new curriculum for him.

A student matriculated in a curriculum may change his curriculum and matriculate in another curriculum after (1) application to the Registrar, (2) interview with his counselor, and (3) approval of the Coordinator of the new curriculum.

A curriculum change is permitted once by following this procedure. In order to make a second change of curriculum as a matriculant without having received a degree in any previous curriculum, permission of the Committee on Academic Standing is required, upon recommendation of the Coordinator of the new curriculum. Matriculated students may be required to pay tuition fees subsequent to a second change of curriculum.

Non-matriculated students may apply for a change of curriculum after consultation with a counselor.
PROGRAM ALLOWANCES AND COURSE LOADS

FULL PROGRAMS

Matriculants
A full program for a matriculant (who is not in the limited program category according to the INDEX CLASSIFICATION CHART) consists of the number of credits listed in the most recent four-semester curriculum pattern for the semester in which the student is enrolled, and is not to exceed the maximum number of credits listed for any semester in that curriculum.

Non-matriculants
The maximum program for a non-matriculant (who is not in the limited program category according to the INDEX CLASSIFICATION CHART) is two courses, not to exceed 10 credits; or, if more than two courses, then not to exceed 6 credits.

LIMITED (PROBATION) PROGRAMS

In accordance with the specifications of the INDEX CLASSIFICATION CHART (see page 48), a student may be required to take a limited (probation) program until such time as his index permits him to take a maximum program.

Newly admitted matriculated students may be assigned a limited program, based on the standards of the curriculum and the recommendation of the Curriculum Coordinator.

Matriculants
A limited program for a matriculant consists of no more than 14 credits for a student without full-time, extra-college responsibility; no more than three courses or 10 credits for a student with full-time, extra-college responsibility.

Non-matriculants
A limited program for a non-matriculant consists of no more than one course or 3 credits.

PROGRAMS EXCEEDING LIMITS

A student may apply to his Curriculum Coordinator for permission to exceed the required program load, after he has consulted with his counselor.
GRADES

The instructor assigns the grade which represents his evaluation of the work performed and the level of scholarship and competence of the student, based on a composite of the elements that went into the course.

Individual departments may set up policies with respect to minimum essentials, relative weighing of factors such as term paper, laboratory work, periodic quizzes, final examination, special projects, etc.

Grading policies may be department-wide or those of an individual instructor. In either event, they are communicated to students early in the semester.

Early Warning Period

An "early warning period" is designated in the Academic Calendar, approximately one month after the beginning of the Fall and Spring Semesters. At that time, instructors notify students who are doing poor work in a course, so as to alert them to the necessity of more effort and better work and give them the opportunity to achieve well. Counselors and Heads of Department are apprised of such notification.

Mid-Term Grades

Instructors assign and inform students of mid-term grades during a period designated in the Academic Calendar.

Unless otherwise announced, all courses have required final examinations for all students.

A permanent academic record for each student is maintained by the Registrar. Students receive specific and cumulative reports of their achievement and status each semester.

The following grades may be assigned by instructors:

<table>
<thead>
<tr>
<th>Grade</th>
<th>% Equivalent</th>
<th>Achievement</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100</td>
<td>Excellent, superior</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
<td>Good, above average</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
<td>Satisfactory, average</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>60-69</td>
<td>Passing, but below average</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0-59</td>
<td>Failing. (Also assigned to student who is absent from a final examination and has done failing work in course)</td>
<td>0</td>
</tr>
</tbody>
</table>
Special Grades
During the semester, and under circumstances described below, instruc-
tors may assign the following special grades:

<table>
<thead>
<tr>
<th>GRADE</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>G (=F)</td>
<td>Student withdrew from course in which he was failing. The withdrawal may be initiated by the student or by his instructor in consultation with the Counselor.</td>
</tr>
<tr>
<td>H (=F)</td>
<td>Student dropped for excessive absence. (Grade assigned in a course from which a student has been absent more than 15% of the time, without satisfactory explanation.)</td>
</tr>
<tr>
<td>J (No Academic Penalty)</td>
<td>Student permitted to withdraw from course without academic penalty. The withdrawal must be initiated by the student with the instructor. The grade of J may be assigned under the following circumstances: <strong>Before Mid-term:</strong> After the change of program period (usually the first two weeks of the semester) and up to the date following announcement of mid-term grades as indicated in the College Calendar, after consultation with a Counselor based on the instructor’s certification that the student has met requirements of attendance, demonstrated genuine effort and fulfilled other commitments of an academic nature. (The student does not necessarily have to be passing in the course if the instructor feels that the requirements as set forth have been met. If the instructor believes that these requirements have not been met, the grade J may be denied and the grade of G, equivalent to F, will be assigned.) <strong>Mid-term:</strong> After the announcement of mid-term grades, as indicated in the College Calendar, the student must, in addition to the conditions set forth above, be: a. passing in the course, and b. have approval of his Counselor. No withdrawal is permitted, except for emergency circumstances, during the last two weeks of the semester, when approval of the Dean of Faculty is required.</td>
</tr>
</tbody>
</table>

U Audit
P Passing

Temporary Grades
An instructor may assign a temporary grade at the end of the semester only, for one of the reasons given below. Requests for the resolution of a temporary grade must be made by the following March 15 for a grade received in the Fall Semester, and by the following October 15 for a grade received in the Spring Semester or Summer Session, with the exception of
the grade of E assigned with the mandate to audit (see explanation below). It is the responsibility of the student to take the necessary steps for the resolution of a temporary grade. If the grade remains unresolved, it is equivalent to F.

GRADE EXPLANATION

E Doubtful academic evaluation after completion of work in course and final examination. May be resolved to D or F only after re-examination. (Refer to Regulations below.)

K Absent from final examination, but otherwise passing in course. Upon application supported by evidence of legitimate, unavoidable absence, student may be given make-up examination. May resolve to A, B, C, D, E, F, or L. (Refer to Regulations below.)

L Work in course incomplete, but otherwise passing in course, including final examination. May resolve to A, B, C, D, or F. (Refer to Regulations below.)

Regulations: Temporary Grades

1. Registration in Subsequent Level Courses
A student with the grade of E, K, or L in any course may not register for the subsequent level course in a sequence, unless he has received written permission to do so from the Head of the Department in which the course is given.

2. Grade of E Resolution Option
The grade of E may be resolved in one of two ways:
(a) by immediate make-up re-examination; or
(b) by requiring the student to audit the same course during the next semester that it is offered, and to be re-examined at the end of that semester.

The option is that of the Department in which the course is offered, and not of the student.

3. Make-up and Special Examinations
Scheduled make-up examinations are held as announced in the Academic Calendar. A student who misses (for a legitimate reason) a regularly scheduled final examination must apply to the Registrar for re-examination to be given on the scheduled date as announced. Students who receive E in a course, without the requirement to audit, must take the examination. A fee of $5.00 is charged for each make-up and special examination.
HONORS

Honor and recognition are given to those students who achieve outstanding academic records. All official awards made by the College to students, including Commencement awards and Dean's Lists Achievement, are noted on the student's permanent academic record. Honors fall into several categories as described below.

Dean's List

During the Fall and Spring Semesters, Semester and Cumulative Dean's Lists are issued—an honor roll acknowledging the academic achievement of matriculated students. (No lists are issued for the Summer Session, but Summer Session grades are included in the cumulative index.)

1. Semester Dean's List: A matriculated student who has completed at least 15 credits in a given semester, with a scholastic index of 3.00 or higher, and no failing grade, will be placed on the subsequent Semester Dean's List.

2. Cumulative Dean's List: A matriculated student who has taken at least 24 cumulative degree credits and has achieved a cumulative scholastic index of 3.00 or higher with no failing grade will be placed on the Cumulative Dean's List.

Honor Societies

Presently two honor societies are active at the College: Phi Theta Kappa—A National Junior College Honor Society, and Tau Alpha Pi—A National Honor Society for Engineering Students. Each year, the honor societies initiate students who have met their requirements and qualify for membership.

Commencement Awards

Seniors who have maintained high levels of accomplishment are given special recognition at Commencement Exercises. These awards may include departmental and curricular recognition for excellence in scholarship and for outstanding service to the College.

HANDICAPPED STUDENTS

Students with physical handicaps requiring special assistance for note-taking in class, writing examinations, etc., should consult with a counselor in the Department of Student Personnel.

Elevator passes may be secured through the Office of the Dean of Administration.
ATTENDANCE AT CLASSES

Regularity of Attendance

Attendance at all class sessions is required. Instructors keep an official record of absences in their roll books and communicate with the Office of the Dean of Students regarding excessive absence or debarment action involving individual students.

Excessive Absence—Warning and Debarment

Students excessively absent as indicated in the chart below may first be warned. If absence continues, they will be debarred, with an assigned grade of H (F). Debarment is discretionary with the instructor. (For appeal for reinstatement in class following debarment, see page 50.)

<table>
<thead>
<tr>
<th>Number of Class Hours per week:</th>
<th>Warning notice sent after:</th>
<th>Debarment notice sent after:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3 hours of absence</td>
<td>5 hours of absence</td>
</tr>
<tr>
<td>3</td>
<td>4½ or 5 hours of absence</td>
<td>7 hours of absence</td>
</tr>
<tr>
<td>4</td>
<td>6 hours of absence</td>
<td>9 hours of absence</td>
</tr>
<tr>
<td>5</td>
<td>7 or 7½ hours of absence</td>
<td>12 hours of absence</td>
</tr>
<tr>
<td>1 session*</td>
<td>1 session*</td>
<td>3 sessions*</td>
</tr>
</tbody>
</table>

* In classes such as laboratory, health, physical education, art, or music, which may be scheduled to meet for only one session each week in a block of hours, absence from one such session incurs a warning notice; absence from two such sessions is the maximum permitted for the term. Absence from three such sessions constitutes grounds for debarment from the course.

LEAVES OF ABSENCE

Students who find it necessary to withdraw from the College for a semester or longer should apply for an official leave of absence through the Counselor.

Military Leave

Students who enlist in the armed forces or who are inducted or recalled into service must present and place on file at the college a copy of the official induction notice indicating the exact date on which they must report for duty. Additional regulations concerning military leave are described on page 40.

Maternity Leave

A student who becomes pregnant must immediately notify her counselor and the special counselor in the Department of Student Personnel. A statement from the student's physician will be required, and when appropriate, arrangements made for a leave of absence.

WITHDRAWAL FROM COLLEGE

A student who plans to withdraw from the College should notify his Counselor without delay, by arranging a personal interview. Students who
are unable to withdraw from the College in person may do so by mail, by writing to the Registrar. The date of withdrawal will be the date on which the letter is received by the College. The letter should include the reason for withdrawal, a listing of the courses and sections in which the student is currently enrolled, and the names of the instructors in each class. Students should be certain to receive written acknowledgment of their withdrawal, to avoid academic penalty.

Students are urged to seek guidance before resigning. Counseling and advisement prior to the final decision to withdraw may solve their problem and make it feasible to remain in college. In any event, a formal withdrawal will protect a student’s record.

Under special circumstances, proportional refunds of tuition fees only may be made according to a schedule prescribed by the Board of Higher Education, if withdrawal is made within the third week after opening of classes. Application for refund of tuition fees should be made to the Dean of Administration.

TRANSFER POLICIES: FROM BRONX COMMUNITY COLLEGE TO A SENIOR COLLEGE

In planning to transfer to a senior college, in or out of City University, the student is advised of the following procedures and requirements:*

1. For students matriculated prior to March 1, 1967, an Associate in Arts Degree in a Transfer curriculum (i.e. Liberal Arts and Sciences, Engineering Science, Business Administration, Business Teaching) with a minimum scholastic index of 2.00 makes possible transfer to the third year of a senior college in City University as a matriculated student, on probation, unless the index is 2.50 or better. Students who were enrolled and matriculated in a Transfer Program on or after March 1, 1967, and who receive an Associate in Arts or an Associate in Science Degree will be admitted to the third year of a senior college in City University. (Special conditions of transfer to specific senior colleges of pharmacy apply.)

2. Graduates of Career Programs at Bronx Community College need an index of 3.00 to be admitted as matriculated students to a senior college in the City University. (Only certain courses will be credited toward the baccalaureate.)

3. All credit and non-credit courses taken at Bronx Community College may be incorporated in the calculations of the scholastic index by the receiving college.

4. All courses and grades taken at Bronx Community College appear on the student’s Bronx Community College permanent record and transcript.

* Refer also to Degree Programs Offered, Section I, page 14.
5

STUDENT PERSONNEL SERVICES
The Student Personnel Department assists the highly diversified student body at Bronx Community College in the process of personal and academic development. The Community College experience is uniquely designed to challenge students to identify and explore their abilities and aptitudes in an environment that is, in many ways, an extension of their home and community relationships. Here the student can establish his identity and at least begin to attain the independence that characterizes individuality and adulthood.

The Student Personnel Department is concerned with student life on all levels, both in and out of the classroom; and its members strive to aid students to achieve optimum intellectual, social, physical and emotional development. Meaningful relationships between students and their counselors and advisors enable students to develop their potential, frequently helping them to formulate realistic goals and to discover their own personal worth and ability. The Student Personnel Department also encourages and aids in the development of cultural and creative activities through which students gain meaningful experiences and thereby broaden their contacts with the society in which they live.

Orientation

Contacts between the Student Personnel Department and incoming freshmen begin immediately with an intensive orientation program. In many ways, this program acts as a vestibule to college life and helps the new students to learn about the way the college functions as well as about their role and responsibility as full members of the college community. The Freshmen Orientation Program, both day and evening, helps the student to make a satisfactory transition from high school to college and to see the new environment as an exciting intellectual and social experience. The overall program is carried on through large and small group meetings and discussions, and individual counseling sessions. Selected senior students also assist in this program.

In addition to the Freshmen Orientation Program, a Senior Orientation Course, designed for career counseling, equips the student to make a smooth transition from the educational environment to the world of work. Senior students who are continuing their education at a four-year college are assisted
in anticipating the change to the new institution through lectures on such topics as "Choosing a College," "Application Procedures," and "Adjustment to the New College."

Orientation is also carried on beyond the limits of these formal programs. The Student Handbook, which is issued each year by the Department of Student Personnel in conjunction with student leaders, helps the student to find answers to many questions concerning college policies, student activities, and about the many resources and services which the College makes available to all students.

COUNSELING AND ADVISEMENT PROGRAM

In order that students can best be assisted in the effective and orderly pursuit of their studies at Bronx Community College it is essential that they have the assistance of expert advisement by specialists in their own curriculum areas, as well as by Student Personnel Counselors.

Counseling

The Student Personnel Counselor, who is concerned with the individual in terms of his aptitudes, personal and environmental adjustment, his intellectual capability, interests, motivation and realism of vocational choice, assists students in these aspects of their development, always in coordination and cooperation with the Curriculum Advisor.

The counselors of the Student Personnel Department assist students to achieve optimum development, intellectually, socially and emotionally in order to enable them to develop as unique and resourceful individuals. The counseling relationship helps students to deal with a wide range of problem areas from educational problems to social, personal and family adjustments.

Advisement

The Curriculum Advisor, generally a member of the teaching faculty, is a specialist in his field who is knowledgeable of the demands of his specialization or curriculum area. He advises students on academic matters such as course selection within the curriculum of his choice, course loads, program changes and transfer to other institutions.

Educational advisement is offered especially during early registration and registration periods, but students are encouraged to take advantage of the specialized knowledge of advisors any time during the year.

Curriculum advisors are also sources of vocational information for students and can often provide valuable assistance in helping students to clarify their vocational objectives with respect to future job opportunities in various fields.
Psychological Services

This service area of the department represents an extension of the counseling process into a more specialized dimension. Where situations arise in which the student faces critical issues that cannot be dealt with or handled adequately within the time limits of a counseling relationship, more intensive help is available by referral to the office of the chief psychologist.

Generally, students presenting unusual difficulties may, in collaboration and discussion with the assigned counselor, be referred to the psychologist for purposes of further clarifying and identifying underlying causes that are creating conflicts and problems. On the other hand, students are free to make individual appointments with the psychologist without discussing personal issues with any member of the department or faculty at large.

Where psychological evaluations and other test information are indicated in terms of the student's presenting difficulty, arrangements are made on an individualized basis, and the results discussed with the student. Depending upon the results, the student can expect to continue a more intensive counseling relationship over a reasonable period of time. All efforts are made to bring the maximum support of all divisions of the department toward the solution of the student's difficulty. Where referrals to an outside agency or resource are indicated, the student is assisted in the selection of either private or community resources.

Placement Services

The Placement Office assists students in relating their personal assets, education and experience to occupational requirements. Students are assisted in crystallizing their occupational goals and, where immediate practical help in terms of employment is indicated, the services of the Placement Office, open both day and evening, are available to both matriculated and non-matriculated students. Positions available are both part-time and full-time.

The office conducts on-Campus recruitment for the graduates of the Career Programs.

FINANCIAL AID

Many forms of student financial assistance are available to students at Bronx Community College. No student need be deprived of the opportunity for a higher education at Bronx Community College for reason of financial need.

Application

The amount of assistance (whether through work-study, loan, grant or scholarship) is based on financial need. All students who wish to be considered for assistance must file an application for Financial Assistance in the
Financial Aid Office. The application may be obtained from the Financial Aid Office at Bronx Community College.

In addition, all financial aid applicants are required to file a Parents' Confidential Statement of the family's finances with the College Scholarship Service. This form may be secured from the applicant's high school, from the Financial Aid Office at Bronx Community College or from College Scholarship Service, Box 176, Princeton, New Jersey, 08540. The completed statement from College Scholarship Service, as well as the application for Financial Assistance must be received by the College on or before July 1 for the Fall Term; or December 1, for the Spring Term. Awards are made for one year, and may be renewed upon application. Renewals are based on continuation of scholastic achievement and financial need. All applicants are also required to have an interview.

Whenever possible, an attempt is made to plan with the student a complete financial aid "package" so that a student may remain in college without placing an undue burden upon himself or his family.

Loans
Loans are available under the New York State Higher Education Assistance Corporation and the National Defense Education Act. Application for New York State Loans require certification of attendance and admission by the Registrar, but must be processed through the Financial Aid Office first.

National Defense Loans are administered solely through the College from funds made available by the Federal Government and the College. Preference for these loans will generally be given to students of superior academic ability. Short-term loans to meet emergencies are also available.

Work-Study Program
Bronx Community College participates in the Federal Work-Study Program which is supported by Federal and College funds. The program is designed to provide part-time employment for students from low and middle-income families with preference being given to the former. Those who qualify may be allowed up to 15 hours weekly employment while classes are in session, and full-time employment up to 40 hours weekly during the summer.

Jobs are available both within the College and in many eligible community agencies off-campus. Wherever possible, placement is related to the student's field of academic or career interest, and the amount of earnings allowed under this program must be related to the student's total need. There are also a few student aide jobs available within the College which are financed solely from College funds and which may be awarded in some cases without regard to financial need. These jobs are awarded on the basis of availability of hours, scholarship and special skills.
Federal Educational Opportunity Grants

Educational Opportunity Grants are available to students of exceptional financial need. These grants must be matched by some other form of financial assistance. The amount of assistance is based on the student's financial resources and those of his parents. An Educational Opportunity Grant may not exceed more than one-half of the amount of assistance the student receives, and these grants may range from $200 to $800 depending on need.

Scholarships

Bronx Community College Scholarships are awarded each year by the Faculty Committee on Scholarships and Financial Aid on the basis of need and academic standing. In addition, special scholarships are made available to qualified students of Bronx Community College through money from gifts and endowments provided by the generosity of private individuals and organizations. These scholarships are administered by the Faculty Committee on Scholarships and Financial Aid.

Additional information and applications may be obtained by addressing inquiries to the Chairman of the Committee on Scholarships and Financial Aid to Students.

The following special scholarships have been available for qualified students:
- The Mayor's Scholarship Awards
- The Susan Wagner Award
- Alexander's Department Store Awards
- Bronx American Legion Scholarship
- The Soroptimist Club of the Bronx Award
- Dr. Israel Gottesman Award (in Bio-Medical Technology)
- The Amos J. Lessard Award (in Modern Languages)
- The Sayer Award (in English)
- The Harry Lesser Memorial Scholarship

Other scholarship grants have been made possible through the Lucy Stone League (for Nursing Students); the Lincoln Foundation; the Essie Gammon Estate; the Hortense Libman Estate; the Premier Investing Co.; George D. Busher; and the H. W. Wilson Foundation.

SPECIAL PROGRAMS

College Discovery

The College Discovery Program, supported by State and City Funds, was initiated at Bronx Community College in 1964 in order to offer possibilities for higher education to students with disadvantaged backgrounds. The
students are nominated by high school principals and counsellors and are screened by the staff of the Social Dynamics Research Institute of The City College on the basis of economic need and potential for academic success. Almost all students lack admissible high school averages and/or high school units.

All are considered to be full-time students and, as such, pay no registration fees. In addition, most of the students receive free books plus a stipend which is intended to cover the cost of carfare and lunch. To assist the students to interpret the demands of college and to resolve some of the more pressing problems that interfere with academic success, intensive counseling is provided.

Students are officially enrolled in the curriculum of their choice, with emphasis on transfer to a baccalaureate degree program. Identities are kept anonymous and the students are integrated into all classes. They are encouraged to participate in all college activities, and to consider themselves as regular college students.

**Operation SEEK**

Operation SEEK is a City University Rescue Program designed to make available a college experience for students living in a pocket of poverty throughout the city who have a high school diploma but have not necessarily completed academic requirements sufficient for them to gain matriculation on the college level. They receive free tuition and books; weekly stipends, and in addition, have available free counseling and tutorial services. It is hoped that as a result of this experience they will gain full matriculation and ultimately will follow through to a college degree.

**BRONX COMMUNITY COLLEGE ASSOCIATION, INC.**

The Bronx Community College Association, Inc., is a chartered corporation composed of a Board of Directors, with the President of the College as chairman. Elected student representatives and faculty are charged with the responsibilities of approving budgets and appropriating monies raised in student activity fees, from bookstore and lunchroom dividends and similar sources. The funds are expended for student extra-curricular activities, including student publications, clubs, social activities, athletic teams, organizations, and field trips, based on budgetary recommendations from the Student Councils and Faculty.

The records and budgeted expenditures are audited periodically and carefully supervised.
STUDENT ACTIVITIES

Student participation in the development and operation of social, cultural and athletic clubs and organizations is a paramount concern of the college. The overall activities program emphasizes educational learning experiences, small group dynamics and independent and creative thinking.

All student organizations must be chartered through the Day and Evening Student Councils. BCC Association, Inc., supports these groups financially and the Faculty Committee on Student Activities determines policy in keeping with the Board of Higher Education by-laws.

Student Government

All full-time and part-time students become members of the BCC Student Association upon payment of the Student Activities fee at the time of registration. The governing groups of the Student Association are the elected Day and Evening Student Councils. Each Student Council plans and executes the kind of program best suited to the needs of its constituents.

A faculty member of the Student Personnel Department, designated by the Dean of Students, acts as Coordinator of Student Activities and adviser to the Student Councils. The Dean of Students directs the overall student activities program, including student government.

Student representatives work with faculty members in the BCC Association, Inc., in the Faculty Committee on Student Activities, with the Faculty Cultural Committee, with faculty advisors to publications and organizations, and are frequently invited to faculty committee meetings.

All officers of the Student Council, of House Plans, clubs, publications and members of athletic teams must be matriculated students with a minimum scholastic index of 2.00.

Some of the activities available to students are:

Houseplans

- Beta Delta Mu
- Gamma Iota Gamma
- Phi Epsilon Tau
- Sigma Epsilon Xi
- Zeta Iota Pi

Religious Interest Groups

- Jewish Cultural Society
- Newman Club
- Chi Alpha Phi
- Kappa Rho Tau
- Pi Epsilon Pi
- Sigma Iota Nu
- Maccabees

68
Departmental and Social Clubs

ABC Club (Architecture, Building, Civil Engineering)
Accounting Club
Amateur Radio Society
ASTME (American Society of Tool and Manufacturing Engineering)
ASPIRA
Bio-Med Society
Business Club
Chorus and Glee Club
Debate Society
Dramatics Club
Film Club
Modern Language Club
(French, German, Spanish)

IEEE (Institute of Electrical and Electronic Engineers)
International Club
Math Club
Outdoors Club
Photography Club
Physical Education Majors Club
Physics Club
Pre-Law Club
Retailing Club
Pre-Law Club
Rifle Club
SIMBA (African-American Culture Study Club)

Discussion Groups

"CLIO" (History Club)
John F. Kennedy Human Relations Society

Young Conservatives
Nurses Residence Club

Student Publications

Communicator (bi-weekly newspaper)
Genesis (Senior Yearbook)
Gleanings (literary magazine)
Day Student Newsletter (weekly)
Evening Reporter
Language Forum

Alumni Association

The prime function of the association is the organization of alumni interest groups and the maintenance of up-to-date records listing the residence, occupation, and achievement of all alumni. It also plays an active role in the social, cultural and educational affairs of the college. All students become members upon graduation.

Health Records

All information regarding necessary and unavoidable absence must be filed in the Registrar's Office. Information relevant to the health and physical condition of the student should be filed with the Department of Student Personnel as well as with the Department of Health and Physical Education.
ATHLETICS

The Athletic Program at Bronx Community College, organized, administered and supervised by the Department of Health and Physical Education, is designed to fulfill the students' natural needs for physical activity under competitive as well as non-competitive conditions.

The intercollegiate program is geared toward those students who exhibit above average athletic abilities and is intended to promote through competitive athletic participation the development of the total personality. The intramural sports program is primarily for those with average athletic abilities and although spirited, is of a less competitive nature. The recreational activities program is designed to provide opportunity for exercise of a non-competitive nature for all those who are motivated towards attaining or maintaining a satisfactory level of physical fitness.

The college is a member of the National Junior College Athletic Association (NJCAA) Region XV, the Metropolitan Community College Athletic Conference, the Junior College Wrestling Conference, and the Metropolitan Junior College Bowling League.

Intercollegiate Athletics
- Men's Basketball Team
- Men's Bowling Team
- Men's Swimming Team
- Men's Wrestling Team

Intramurals
Basketball, volleyball, wrestling, swimming, tennis and bowling are scheduled on an intramural basis. The program is open to all students with an acceptable medical report on file in the Health Service Office. In addition, the following clubs are open to all interested female students:
- Women's Synchronized Swimming Club
- Women's Bowling Club
- Women's Volleyball Club
THE CURRICULA

This section describes the curricular offerings and their purposes. It deals specifically with the curriculum patterns and courses prescribed for each curriculum and its options and/or specialization.

The student is urged to study carefully the requirements of his curriculum and consult regularly with his Adviser, in order to receive guidance in the planning of his program each semester so as to meet his curriculum requirements. The student is responsible for completing the courses and requirements of his curriculum for the designated degree. The student’s Adviser will help him plan his program each semester and render his advice throughout his attendance at Bronx Community College.

THE PROGRAMS IN BUSINESS

There are excellent opportunities for intelligent, alert, well-trained people in the increasingly complex world of modern business and commerce. To help students achieve their ambitions in the business fields, the programs offered in Business and Business Administration provide them with a sound, broad background.

The College offers a well-balanced program of study in each of the areas of the Business Curricula for those who wish to attend college for two years only or who are not certain about additional college education, as well as for those who plan to pursue further study at a senior college and earn a baccalaureate degree. Each of the Business programs at Bronx Community College combines general education in the English language and literature, the social studies, the humanities, and the sciences along with specialized training in the student’s choice of career and curriculum.

The programs offered in the Business and Commerce Department fall into three categories. They are (A) Business Career, a two-year program which leads to the A.A.S. degree; (B) Business Administration, a transfer program which leads to the A.A. degree and to the third year at the Bernard Baruch School of Business and Public Administration of the City College of New York; and (C) Business Teaching, a special program for students planning to teach business subjects at the high school level, which leads to the A.A. degree and to the third year at the Baruch School of the City College and at Hunter College of the City University of New York.

The specific requirements and characteristics of the three categories are described and explained on pages 75-87.
BUSINESS CAREER CURRICULA

There are several areas in the Business Career Curricula leading to the A.A.S. degree. A student may pursue a Business Career specialization in: 1) Accounting, 2) Retail Business Management, or 3) Executive Secretarial. The Executive Secretarial specialization includes four options: a. General Secretary, b. Legal Secretary, c. Medical Secretarial Assistant, d. School Secretary.

Or he may pursue the Data Processing Curriculum with a specialization in either (a) Machine Operations or (b) Computer Programming and Systems.

The Business Career Curricula provide a high degree of technical competence which may lead to a responsible position in the area of the student's specialization. The curriculum adviser will assist the student in carefully selecting the courses required by his specific program and help him consider all the possibilities affecting his goals.

Upon satisfactory completion of his work at Bronx Community College, the student may seek immediate employment in the field of his choice as a well-trained graduate. Should the student decide to continue his college studies and desire to transfer to the third year at the Baruch School of Business and Public Administration of the City College, he may do so as a matriculated student there, only if he has maintained a scholastic index of 3.00 at Bronx Community College. Or, he may transfer to another appropriate college of his choice provided he meets the requirements of that institution; or he may decide—within the first year of his enrollment at Bronx Community College—upon intra-curriculum transfer.

A student who is undecided about his career or goal may start his training with basic business subjects. As he develops an interest in a particular area, he will be guided through a prepared sequence in his field of interest.

On the other hand, a student who changes his objectives will find sufficient flexibility in the curriculum offering to permit a shift of plan. Any loss of credit or time depends on the areas of specialization involved and the time the change is made.

The following pages describe the requirements for each of the specializations and options in the Business Career Curriculum.
IUSINUS

Accounting Specialization

The accountant is indispensable in modern business organization and management. His basic responsibilities include the recording and summarizing of financial transactions. The expert accountant is called upon to analyze, interpret and prepare business reports, often including recommendations for more efficient operations.

Graduates may enter this field of specialization in such positions as: Bookkeepers, Cost Accounting Clerks, Junior Accountants, and Tax Examiners for government agencies.

With further study, graduates may go on to the baccalaureate degree and become: Business Managers, Budget Directors, Private Accountants, Controllers.

With further appropriate training and experience, graduates may qualify for certification as Certified Public Accountant or as teachers of accounting and related subjects.

Curriculum Pattern for the Accounting Specialization

70 Credits required for A.A.S. Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 11</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>*</td>
<td>Science (choose one)</td>
<td>4</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
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</table>

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>ENG 12</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Health and Physical Education (choose one)</td>
<td>1/2</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>$MTH 11</td>
<td>Intro. College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 12</td>
<td>Fundamental Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 11</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>SPH 12</td>
<td>Advanced Speech</td>
<td>2</td>
</tr>
<tr>
<td>ECO 21</td>
<td>Economics (continuation)</td>
<td>4</td>
</tr>
<tr>
<td>ACC 13</td>
<td>Intermediate Accounting</td>
<td>4</td>
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<tr>
<td>FIN 31</td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

* Students may select: BIO 11 Biology, CHM 11 Chemistry, PHY 11 Physics or SCI 11 Principles of Science.

$ Or MTH 17, College Algebra, for those with Intermediate Algebra who wish transfer

f May be waived for Evening Session students with approval of his curriculum advisor.

76
BUSINESS CAREER CURRICULUM

2. Retail Business Management Specialization

The retailer serves as a vital link between producer and consumer. Retailing organizations may be independent, chain or department stores, buying offices, or mail-order houses, all of which sell myriad products through a wide variety of outlets and by various techniques.

Students earn while they learn during their senior semester in the Co-operative Work Experience program which provides part-time, supervised employment in a college-approved retail organization.

Successful completion of the retailing curriculum prepares a graduate to start a business career in such positions as: Assistant Buyer, Head of Stock, Assistant Store Manager, Comparison Shopper, Salesman, Distributor, Section Manager. With further experience and training, graduates may qualify for such positions as: Buyer, Employment Manager, Store Manager, Fashion Coordinator.

Curriculum Pattern for the Retail Business Management Specialization

68 Credits required for A.A.S. Degree

FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course No.</td>
<td>Course Title</td>
</tr>
<tr>
<td>ENG 11</td>
<td>English Composition I</td>
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<tr>
<td>SPH 11</td>
<td>Speech Fundamentals*</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td>RET 11</td>
<td>Marketing</td>
</tr>
<tr>
<td>RET 13</td>
<td>Textiles</td>
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SECOND YEAR

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credit</th>
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</thead>
<tbody>
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<td>Course Title</td>
</tr>
<tr>
<td>ENG 12</td>
<td>English Composition II</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Health and Physical Education (choose one)</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization II</td>
</tr>
<tr>
<td>MTH 11</td>
<td>Intro. College Mathematics I</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
</tr>
<tr>
<td>RET 14</td>
<td>Apparel and Accessories II</td>
</tr>
<tr>
<td>Total</td>
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</table>

<table>
<thead>
<tr>
<th>THIRD SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course No.</td>
</tr>
<tr>
<td>ECO 21</td>
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<td>PSY 21</td>
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<tr>
<td>LAW 41</td>
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<td>RET 31</td>
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<tr>
<td>RET 33</td>
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<td>RET 35</td>
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<tr>
<th>FOURTH SEMESTER</th>
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<tr>
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<tr>
<td>RET 42</td>
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<tr>
<td>ART 11</td>
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<td>MUS 11</td>
</tr>
<tr>
<td>BIO 18</td>
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<tr>
<td>RET 36</td>
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<tr>
<td>RET 41</td>
</tr>
<tr>
<td>RET 43</td>
</tr>
<tr>
<td>RET 51</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

§ Or MTH 17, College Algebra for those who have had Intermediate Algebra.
† Or RET 53, Current Retailing Concepts (2 credits) for Evening Session students only.
*SPH 01, Speech Clinic, may be required (as determined by Department of Speech).
‡ May be waived for Evening Session students with approval of curriculum advisor.
Efficient secretaries, especially those prepared to assume responsibilities as assistants to executives, are in tremendous demand in the ever-expanding business world.

The College offers the student four options within the specialization of Executive Secretary—(a) General Secretary; (b) Legal Secretary; (c) Medical Secretarial Assistant, and (d) School Secretary. Graduates qualify as secretaries in business—advertising, publishing, finance, in Government civil service positions; in law offices—assisting attorneys and judges; in doctors’ offices and hospitals—assisting general practitioners, specialists, and hospital administrators; in school offices—assisting administrators.

**a. Curriculum Pattern for General Secretary Option.**

64-67** Credits required for A.A.S. Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 11</td>
<td>English Composition I</td>
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<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
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<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 18</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td><em>STE 11 or 15 Stenography I</em></td>
<td>(Gregg or Pitman)</td>
<td>3</td>
</tr>
<tr>
<td><em>TYP 11 Typing 1</em></td>
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Total 18 1/2

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 31</td>
<td>Principles of Finance or Marketing</td>
<td>3</td>
</tr>
<tr>
<td>RET 11</td>
<td>or 17 Stenography</td>
<td>3</td>
</tr>
<tr>
<td>TYP 13</td>
<td>Typing 3</td>
<td>2</td>
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<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
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</tr>
<tr>
<td>RET 41 Retail Store Operations</td>
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</tbody>
</table>

Total 15-16

---

* Students who have had previous training in Stenography and Typing may be exempt from STE 11 or 15 and TYP 11 upon passing qualifying examination.

** Students receiving exemption in Stenography and Typing need 64 credits; others require the 67 credits.

§ Or MTH 17 for those who have had Intermediate Algebra.

*** To be chosen from: English, Speech, Modern Language, Social Studies, Science, Mathematics, or Health and Physical Education.

† May be waived for Evening Session students with approval of his curriculum advisor.
### Executive Secretary Specialization

**b. Curriculum Pattern for Legal Secretary Option.**

**65-69** Credits required for A.A.S. Degree

#### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 11</td>
<td>English Composition I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIO 18</td>
<td>Human Physiology</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><em>STE 11</em> or 15</td>
<td>Stenography I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><em>TYP 11</em></td>
<td>Typing 1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>18 1/2</strong></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 12</td>
<td>English Composition 2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SMS 11</td>
<td>Intro. College Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>STE 12 or 16</td>
<td>Stenography</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>TYP 12</td>
<td>Typing 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>18 1/2</strong></td>
<td></td>
</tr>
</tbody>
</table>

> Students who have had previous training in Stenography and Typing may be exempt from STE 11 or 15 and TYP 11 upon passing qualifying examination.

> Students receiving exemption in Stenography and Typing need not less than 65 credits; others require 69 credits.

> § Or MTH 17 for those who have had Intermediate Algebra.

> † May be waived for Evening Session students with approval of his curriculum advisor.

> **To be chosen from:** English, Speech, Modern Languages, Social Studies, Science, Mathematics, or Health and Physical Education.

### Second Year

#### Fourth Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HST 11</td>
<td>Secretarial Sr. Orientation</td>
<td>0</td>
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<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 11</td>
<td>Music Appreciation</td>
<td>Elective*** 1-4</td>
</tr>
<tr>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SEC 41</td>
<td>Secretarial Practice</td>
<td>2</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>14-17</strong></td>
</tr>
</tbody>
</table>

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### Executive Secretary Specialization

**c. Curriculum Pattern for Medical Secretarial Assistant Option.**

**68-69** Credits required for A.A.S. Degree

#### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 11</td>
<td>English Composition I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIO 18</td>
<td>Human Physiology</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><em>TYP 11</em></td>
<td>Typing 1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>or MUS 11</td>
<td>Art Appreciation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>16 1/2</strong></td>
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<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 12</td>
<td>English Composition 2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SMS 11</td>
<td>Intro. College Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>TYP 12</td>
<td>Typing 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BIO 22</td>
<td>Medical Terminology</td>
<td>2</td>
<td></td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>17 1/2</strong></td>
<td></td>
</tr>
</tbody>
</table>

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* Students who have had previous training in Stenography and Typing may be exempt from STE 11 or 15 and TYP 11 upon passing qualifying examination.

**Students receiving exemption in Stenography and Typing need not less than 65 credits; others require 69 credits.**

§ Or MTH 17 for those who have had Intermediate Algebra.

† May be waived for Evening Session students with approval of his curriculum advisor.

***To be chosen from:** English, Speech, Modern Languages, Social Studies, Science, Mathematics, or Health and Physical Education.
### SECOND YEAR

| Course No. | Course Title                  | Credits | | Course No. | Course Title                  | Credits |
|------------|-------------------------------|---------|| Course No. | Course Title                  | Credits |
| SPH 11     | Speech Fundamentals           | 2       | | ORI 43     | Secretarial Sr. Orientation   | 0       |
| ECO 21     | Economics                     | 3       | | SEC 35     | Medical Office Practice and Management | 2 |
| TYP 13     | Typing 3                      | 2       | | BIO 47     | Clinical Techniques for Medical Secretaries | 3 |
| BIO 46     | Clinical Techniques for Medical Secretaries | 3 |
| PSY 21     | Psychology                    | 3       | | SOC 21     | Sociology                      | 3       |
| SEC 34     | Medical Office Practice and Management | 2 |
| SEC 37     | Medical Office Communications  | 2       | | PSY 31     | Abnormal Psychology            | 3       |
|            |                               |         | | LAW 35     | Medical Law                    | 3       |
|            |                               |         | | ***        | Elective                       | 3.4      |
| Total      |                               |         | | Total      |                               | 17-18    |

* Students who have had previous training in Typing may be exempt from TYP 11 upon passing qualifying examination.

§ Or MTH 17 for those who have had Intermediate Algebra.

*** To be chosen from: English, Modern Languages, Social Studies, Science, or Mathematics.

† May be waived for Evening Session students with approval of his curriculum adviser.

### Executive Secretary Specialization

**d. Curriculum Pattern for School Secretary Option**

64 Credits required for A.A.S. Degree

### FIRST YEAR

| Course No. | Course Title                  | Credits | | Course No. | Course Title                  | Credits |
|------------|-------------------------------|---------|| Course No. | Course Title                  | Credits |
| ENG 11     | English Composition I         | 3       | | ENG 12     | English Composition I         | 3       |
| HLT 11     | Introduction to Physical Education | 1/2   |
| HIS 11     | History of Civilization I     | 3       | | HLT 21-81  | Physical Education            | 1/2 (choose one) |
| BIO 18     | Human Physiology              | 4       | | HIS 12     | History of Civilization I     | 3       |
| BUS 11     | Business Mathematics          | 3       | | MTH 11     | Intro. College Mathematics    | 3       |
| STE 11     | or 15 Stenography I or 15     |         | | ACC 11     | Fundamental Accounting I      | 4       |
|            | [Gregg or Pitman]             |         | | STE 12     | Stenography                   | 2       |
|            |                               |         | | TYP 12     | Typing 2                      | 2       |
| *TYP 11    | Typing 1                      | 2       | | Total      |                               | 18 1/2  |

### SECOND YEAR

| Course No. | Course Title                  | Credits | | Course No. | Course Title                  | Credits |
|------------|-------------------------------|---------|| Course No. | Course Title                  | Credits |
| ART 11     | Art Appreciation              | 1       | | ORI 41     | Secretarial Sr. Orientation   | 0       |
| MUS 11     | Music Appreciation            | 1       | | SPH 12     | Advanced Speech               | 2       |
| SPH 11     | Speech Fundamentals           | 2       | | PSY 21     | Psychology                    | 3       |
| ECO 21     | Economics                     | 3       | | ***        | Elective                       | 3.4      |
| **FIN 31   | Principles of Finance         | 3       | | STE 14 or 17 | Stenography | 3 |
| STE 13 or 17 | Stenography I or 17 |    |
| TYP 13     | Typing 3                      | 2       | | STE 48     | Educational Problems of School Secretaries | 2 |
| SEC 47     | Education Problems of School Secretaries | 2 |
|            |                               |         | | SEC 45     | School Records and Accounts   | 2       |
|            |                               |         | | SEC 41     | Secretarial Practice          | 2       |
| Total      |                               |         | | Total      |                               | 14-18    |

* Students exempted from STE 11 or 15 or TYP 11 should substitute FIN 31.

** Students exempted from STE 11 or 15 and TYP 11 should substitute FIN 31 and elective.

*** To be chosen from: English, Speech, Modern Languages, Social Studies, Science, Mathematics, or Health and Physical Education.

§ Or MTH 17 for those who have had Intermediate Algebra who wish transfer to a four-year college.

† May be waived for Evening Session students with approval of his curriculum adviser.
BUSINESS ADMINISTRATION CURRICULUM
(Transfer to Baruch School)

The Business Administration program is designed to provide the student with an introduction to either Accounting or Retailing as part of a foundation for continuing for a baccalaureate degree at the Baruch School of Business and Public Administration of the City College of New York, to which he may transfer automatically upon graduation from Bronx Community College provided he has maintained a scholastic index of 2.00. This program also provides a basis for transfer to any other appropriate senior business college for which the student qualifies and chooses to attend. Upon graduation from Bronx Community College, the student earns the A.A. degree. Following are descriptions of the two options in this program and the sequence of courses needed for fulfillment of degree requirements.

Students interested in the demanding and rewarding area of private or public accounting (including qualification leading to the C.P.A.) or related fields, should select the Accounting option.

Those interested in the challenging and rewarding field of Retailing, or another related facet of Marketing, should select the Retail Business Management option.

BUSINESS ADMINISTRATION

Accounting

The professional accountant is the backbone of today's business. The Accounting option of the Business Administration program prepares the student with fundamental courses in business and accounting and provides him with the proper background for transfer into the senior college and completion of the baccalaureate degree. The student who desires a career in executive and administrative positions in finance and budget direction, or in related business areas, should pursue this program. Upon completion of further appropriate education and training, and with experience, students may qualify by state examination as Certified Public Accountants, or as teachers in the field of business administration.
# BUSINESS ADMINISTRATION

## 1. Curriculum Pattern for the Accounting Option (Transfer to Baruch School)

69-70 Credits required for A.A. Degree

### FIRST YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>ENG 11</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization</td>
<td>3</td>
</tr>
<tr>
<td><strong>MTH 17</strong></td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>RET 11</td>
<td>Marketing</td>
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<thead>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>MUS 11</td>
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<td>ENG 12</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization</td>
<td>3</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting</td>
<td>4</td>
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<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
<td>3</td>
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### SECOND YEAR

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 12</td>
<td>Fundamental Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 41</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
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<thead>
<tr>
<th>Course No.</th>
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<tbody>
<tr>
<td>§ORI 41</td>
<td>Accounting</td>
<td>1</td>
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<tr>
<td>SPH 12</td>
<td>Advanced Speech</td>
<td>2</td>
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<tr>
<td>HLT 21-81</td>
<td>Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
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<tr>
<td>ACC 13</td>
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<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
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<td>Total</td>
</tr>
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* See Language Requirements for Business and Commerce Transfer Programs, page 87.

** Students who have taken Advanced Algebra in high school may be exempt from College Algebra by satisfactory performance in an examination given by the Department of Mathematics. In this instance, MTH 31, Analytic Geometry and Calculus, is required.

† A student may choose one year of any one of those sciences of Biology, Chemistry or Physics which he has not had in high school.

A student who elects one year of that science which he has had in high school must take one semester of one of the other sciences at Baruch School, as they require.

A student who elects Principles of Science (SCI 11 and 12) must take two semesters at Baruch School, as described in its Curriculum Handbook.

§ May be waived for Evening Session students with approval of his curriculum advisor.

Note: Students exempted from courses will arrange for course substitutions through the head of the Department of Business and Commerce.
BUSINESS ADMINISTRATION

Retailing

The field of Retailing provides vast opportunities for the well trained college graduate. For those students who wish to prepare for a career in the world of retailing, this option of the Business Administration program provides them with basic courses before transferring into the four-year college. Administrative and executive positions require a firm foundation in the business subjects included in this curriculum.

2. Curriculum Pattern for the Retailing Option (Transfer to Baruch School)
66-67 Credits required for A.A. Degree

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ART 11</td>
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<td>1</td>
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<tr>
<td>ENG 11</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
</tr>
<tr>
<td><strong>MTH 17</strong></td>
<td>College Algebra or Modern Language</td>
<td>4</td>
</tr>
<tr>
<td>MTH 31</td>
<td>Analytic Geometry and Calculus</td>
<td>3.4</td>
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<tr>
<td>RET 11</td>
<td>Marketing</td>
<td>3</td>
</tr>
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**SECOND YEAR**

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<thead>
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<tr>
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<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>1/2</td>
</tr>
<tr>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
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<tr>
<td><strong>BUS 41</strong></td>
<td>Business Statistics</td>
<td>3</td>
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<tr>
<td>RET 33</td>
<td>Retail Buying Techniques</td>
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**Third Semester**

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<th>Course Title</th>
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<tr>
<td>MUS 11</td>
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<tr>
<td>ENG 12</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>1/2</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization II</td>
<td>3</td>
</tr>
<tr>
<td><strong>ACC 11</strong></td>
<td>Fundamental Accounting</td>
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<tr>
<td>RET 41</td>
<td>Retail Operations and Management</td>
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</tr>
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<td>17 1/2</td>
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**Fourth Semester**

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<td>SPH 12</td>
<td>Advanced Speech</td>
<td>2</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>1/2</td>
</tr>
<tr>
<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>LAW 41</strong></td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>RET 35</td>
<td>Retail Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>15 1/2</td>
</tr>
</tbody>
</table>

* See Language Requirements, page 87.

** Students who have taken Advanced Algebra in high school may be exempt from College Algebra by satisfactory performance on an examination given by the Department of Mathematics. In this instance, MTH 31, Analytic Geometry and Calculus is required.

†A student may choose one year of anyone of the sciences of Biology, Chemistry or Physics which he has not had in high school.

A student who elects one year of that science which he has had in high school must take one semester of one of the other sciences at Baruch School, as they require.

A student who elects Principles of Science (SCI 11 and 12) must take two semesters at Baruch School as described in its Curriculum Handbook.

Note: Students exempted from courses will arrange for course substitution through the Head of the Department of Business and Commerce.
BUSINESS TEACHING CURRICULUM  
(Transfer to Hunter College)

The Business Teaching program offers two plans to students preparing to teach in high school: (1) For students planning to teach Secretarial Studies at the secondary level and who plan to transfer to Hunter College of the City University of New York; (2) For students planning to teach Bookkeeping and Accounting at the secondary level and who plan to transfer to Hunter College of the City University of New York. Both programs lead to the A.A. degree. Upon successful completion of this program, a student may transfer to the third year at Hunter College provided he has maintained a scholastic index of 2.00 at Bronx Community College.

1. Curriculum Pattern for the H.S. Teaching Option: Bookkeeping and Accounting  
(Transfer to Hunter College)  
67½-70½ Credits required for A.A. Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ENG 11</td>
<td>English Composition I</td>
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<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
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<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
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<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
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<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENG 12</td>
<td>English Composition II</td>
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<td>Physical Education (choose one)</td>
<td>1/2</td>
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<tr>
<td>HIS 12</td>
<td>History of Civilization II</td>
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<td>Fundamental Accounting II</td>
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<td>Total</td>
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</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>1/2</td>
</tr>
<tr>
<td>ACC 13</td>
<td>Intermediate Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
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<td>16½-17½</td>
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<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ORI 41</td>
<td>Accounting Sr. Orientation</td>
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</tr>
<tr>
<td>HLT 91</td>
<td>Personal and Community Health</td>
<td>1</td>
</tr>
<tr>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>FIN 21</td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>17-18</td>
</tr>
</tbody>
</table>

* See Language Requirements, page 87.
† Students who have had Advanced Algebra in high school should substitute MTH 31, Analytic Geometry and Calculus.
‡ Remedial Speech, SPH 01 may also be required as determined by the Department of Speech, in order to meet the standards required for passing the Qualifying Examination in Speech for prospective teachers.
‡ A student must choose a two-semester sequence in one of the sciences of Biology, Chemistry or Physics.
** May be waived for Evening Session students with approval of his curriculum advisor.
# Elective substitutions for examinations based upon placement examinations: Maximum 13 credits.

Modern Language 3-4  PSY 21 Psychology 3
ENG 24 English Literature 1 3  PHL 21 Introduction to Philosophy 3
ENG 25 English Literature 2 3  MTH 14 Survey of Mathematics 2 3
SPH 12 Advanced Speech 2

Note: Students exempted from courses will arrange for course substitution through the Head of the Department of Business and Commerce.
### BUSINESS TEACHING CURRICULUM

2. Curriculum Pattern for H. S. Teaching Option: Secretarial Studies
(Transfer to Hunter College)

67½-70½ Credits required for A.A. Degree

#### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
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<tbody>
<tr>
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<td><strong>Course No.</strong></td>
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<tr>
<td><strong>Course Title</strong></td>
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</tr>
<tr>
<td><strong>Credit</strong></td>
<td><strong>Credit</strong></td>
</tr>
<tr>
<td>ENG 11 English Composition 1</td>
<td>ENG 12 English Composition 2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
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<tr>
<td>HLT 11 Intro. to Physical Education</td>
<td>HLT 21-81 Physical Education</td>
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<td>1½</td>
<td>(choose one)</td>
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<tr>
<td>HIS 11 History of Civilization 1</td>
<td>HIS 12 History of Civilization 2</td>
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<td>* Modern Language</td>
<td>* Modern Language</td>
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<tr>
<td>4</td>
<td>3</td>
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<tr>
<td><strong>STE</strong> 11 or 15 Stenography 1</td>
<td>MTH 13 Survey of Mathematics</td>
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<tr>
<td>(Gregg or Pitman)</td>
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</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>TYP</strong> 11 Typing 1</td>
<td>STE 12 or 16 Stenography 2</td>
</tr>
<tr>
<td>(Gregg or Pitman)</td>
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<td>3</td>
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<td><strong>Total</strong> 15½</td>
<td><strong>Total</strong> 17½-18½</td>
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#### SECOND YEAR

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Fourth Semester</th>
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<tbody>
<tr>
<td><strong>Course No.</strong></td>
<td><strong>Course No.</strong></td>
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<tr>
<td><strong>Course Title</strong></td>
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<tr>
<td><strong>Credit</strong></td>
<td><strong>Credit</strong></td>
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<td>ORI 43 Secretarial Sr. Orientation</td>
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<td>HSPH 11 Speech Fundamentals</td>
<td>HLT 91 Personal and Community Health</td>
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<tr>
<td># Elective</td>
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<tr>
<td>3-4</td>
<td>1</td>
</tr>
<tr>
<td># Science</td>
<td></td>
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<tr>
<td>4</td>
<td>3</td>
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<td>STE 13 or 17 Stenography 3</td>
<td>ECO 21 Economics</td>
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<td>(Gregg or Pitman)</td>
<td>* Modern Language or</td>
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<td>3-4</td>
</tr>
<tr>
<td>TYP 13 Typing 3</td>
<td>§ Science</td>
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<td>2</td>
<td>4</td>
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<tr>
<td>BUS 51 Business Organization and Management</td>
<td>LAW 41 Business Law</td>
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<td><strong>Total</strong> 17½-18½</td>
<td>STE 14 or 18 Stenography 4</td>
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<td>(Gregg or Pitman)</td>
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<td><strong>Total</strong> 17-18</td>
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</table>

** Students who have had previous training in Stenography and Typing may be exempt STE 11 or 15 and TYP 11 upon passing qualifying examination.

* See Language Requirements, page 87.

§ Students are advised that they will lose part of their shorthand-typing credit when they are admitted to Hunter College.

¶ Students who have had Advanced Algebra in high school should substitute MTH 31, Analytic Geometry and Calculus.

† A student must choose a two-semester sequence in one of the sciences of Biology, Chemistry or Physics.

‡ Remedial Speech, SPH 01 may also be required as determined by the Department of Speech, in order to meet the standards required for passing the Qualifying Examination in Speech for prospective teachers.

¶ May be waived for Evening Session students with approval of his curriculum advisor.

# Elective substitutions for exemptions based upon placement examinations: Maximum—13 credits.

— Modern Language
PSY 21 Psychology
ENG 24 English Literature 1
PHL 21 Introduction to Philosophy
ENG 25 English Literature 2

85
## BUSINESS TEACHING CURRICULUM

### 1. Curriculum Pattern for H.S. Teaching Option: Bookkeeping and Accounting
(Transfer to Baruch School)

#### 67-68 Credits for A.A.A. Degree

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
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<th>Course Title</th>
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<tbody>
<tr>
<td>FIRST YEAR</td>
<td>ENG 11</td>
<td>English Composition I</td>
<td>3</td>
<td>ENG 12</td>
<td>English Composition 2</td>
<td>3</td>
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<tr>
<td></td>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
<td>HLT 21-81</td>
<td>Health and Physical Education (choose one)</td>
<td>1/2</td>
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<tr>
<td></td>
<td>HLT 52</td>
<td>Modern Language</td>
<td>4</td>
<td>HLT 21-81</td>
<td>Health and Physical Education (choose one)</td>
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<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
<td>HIS 12</td>
<td>History of Civilization I</td>
<td>3</td>
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<tr>
<td></td>
<td>MTH 17</td>
<td>College Algebra or</td>
<td></td>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
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<tr>
<td></td>
<td>MTH 31</td>
<td>Analytic Geometry and Calculus</td>
<td>3-4</td>
<td>RET 11</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
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<td>17/2</td>
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#### SECOND YEAR

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<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Third Semester</td>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
<td>ART 11</td>
<td>Art Appreciation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>HLT 21-81</td>
<td>Health and Physical Education (choose one)</td>
<td>1/2</td>
<td>MUS 11</td>
<td>Music Appreciation</td>
<td>1</td>
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<tr>
<td></td>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
<td>HLT 21-81</td>
<td>Health and Physical Education (choose one)</td>
<td>1/2</td>
</tr>
<tr>
<td></td>
<td>STE 11</td>
<td>or 15 Stenography</td>
<td>3</td>
<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TYP 11</td>
<td>Typing I</td>
<td>2</td>
<td>ACC 13</td>
<td>Intermediate Accounting I</td>
<td>4</td>
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<td></td>
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<td>LAW 41</td>
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<td>ORI 41</td>
<td>Senior Orientation</td>
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#### 2. Curriculum Pattern for H.S. Teaching Option: Secretarial Studies
(Transfer to Baruch School)

#### 69-70 Credits required for A.A. Degree

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<th>Semester</th>
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<th>Course No.</th>
<th>Course Title</th>
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<td>1</td>
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<td>English Composition I</td>
<td>3</td>
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<td>1/2</td>
<td>HIS 12</td>
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<td></td>
<td>*MTH 17</td>
<td>College Algebra or</td>
<td></td>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
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<tr>
<td></td>
<td>MTH 31</td>
<td>Analytic Geometry and Calculus</td>
<td>3-4</td>
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<td>Business Mathematics</td>
<td>3</td>
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<tr>
<td></td>
<td>STE 13</td>
<td>or 17 Stenography</td>
<td>3</td>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
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<td>TYP 11</td>
<td>Typing I</td>
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<td>ORI 43</td>
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#### SECOND YEAR

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<td></td>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
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<td></td>
<td>HLT 21-81</td>
<td>Health and Physical Education (choose one)</td>
<td>1/2</td>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
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<tr>
<td></td>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
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<td></td>
<td>STE 13</td>
<td>or 17 Stenography</td>
<td>3</td>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
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<tr>
<td></td>
<td>TYP 11</td>
<td>Typing I</td>
<td>2</td>
<td>ORI 43</td>
<td>Senior Orientation</td>
<td>0</td>
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<td>Total</td>
<td>18/2</td>
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</table>

Symbols explained on page 87.
3. Curriculum Pattern for H. S. Teaching Option: Retailing (Distributive Education) (Transfer to Baruch School)

68-69 Credits required for A.A. Degree

**Language Requirements for Business and Commerce Transfer Programs**

All students who have had French, German, Italian, Russian or Spanish in high school must take a language placement examination before being assigned to the appropriate course level based upon the following:

- A student who has taken 4 years of a foreign language in high school is required to complete 2 semesters of that foreign language.
- A student who has taken 3 or 3½ years of one of the above languages in high school is required to complete 2 semesters of that foreign language. To satisfy the language requirements at Hunter College, the student is advised to elect one additional semester of that language.
- Students who have had less than 3 years of high school language are advised to plan on making up this deficiency in Summer Session.
- Students who have taken 2 or 2½ years of the above languages must take 4 semesters of that language.
- Students starting a new language must complete 4 semesters of French, German, Italian, Russian or Spanish.
- Students presenting high school Hebrew or Latin are permitted to continue their high school language at another college, if they so desire.

### FIRST YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 11</td>
<td>English Composition I</td>
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</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>½</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
</tr>
<tr>
<td><strong>MTH 17</strong></td>
<td>College Algebra or Analytic Geometry</td>
<td>3-4</td>
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<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</table>

**Students who have taken Advanced Algebra in high school may be exempt from College Algebra by satisfactory performance on an examination given by the Department of Mathematics. In this instance, MTH 31, Analytic Geometry and Calculus, is required.**

**A student may choose one year of any one of the sciences of Biology, Chemistry or Physics which he has not had in high school.**

**A student who elects one year of that science which he has had in high school must take one semester of one of the other sciences at Baruch School, as they require.**

**A student who elects Principles of Science (SCI 11 and 12) must take two semesters at Baruch School as described in its Curriculum Handbook.**

### SECOND YEAR

- **Students who have taken Advanced Algebra in high school may be exempt from College Algebra by satisfactory performance on an examination given by the Department of Mathematics. In this instance, MTH 31, Analytic Geometry and Calculus, is required.**
- **A student may choose one year of any one of the sciences of Biology, Chemistry or Physics which he has not had in high school.**
- **A student who elects one year of that science which he has had in high school must take one semester of one of the other sciences at Baruch School, as they require.**
- **A student who elects Principles of Science (SCI 11 and 12) must take two semesters at Baruch School as described in its Curriculum Handbook.**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Health and Physical Education (choose one)</td>
<td>½</td>
</tr>
<tr>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>RET 33</td>
<td>Retail Buying Techniques</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16½</strong></td>
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</table>

**Students who have taken Advanced Algebra in high school may be exempt from College Algebra by satisfactory performance on an examination given by the Department of Mathematics. In this instance, MTH 31, Analytic Geometry and Calculus, is required.**

**A student may choose one year of any one of the sciences of Biology, Chemistry or Physics which he has not had in high school.**

**A student who elects one year of that science which he has had in high school must take one semester of one of the other sciences at Baruch School, as they require.**

**A student who elects Principles of Science (SCI 11 and 12) must take two semesters at Baruch School as described in its Curriculum Handbook.**

### THIRD SEMESTER

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
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<tr>
<td>HLT 21-81</td>
<td>Health and Physical Education (choose one)</td>
<td>½</td>
</tr>
<tr>
<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>RET 35</td>
<td>Retail Merchandising I</td>
<td>3</td>
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<td>RET 13</td>
<td>Textiles</td>
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<td>ORI 42</td>
<td>Senior Orientation</td>
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<td><strong>Total</strong></td>
<td><strong>18½</strong></td>
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**Students who have taken Advanced Algebra in high school may be exempt from College Algebra by satisfactory performance on an examination given by the Department of Mathematics. In this instance, MTH 31, Analytic Geometry and Calculus, is required.**

**A student may choose one year of any one of the sciences of Biology, Chemistry or Physics which he has not had in high school.**

**A student who elects one year of that science which he has had in high school must take one semester of one of the other sciences at Baruch School, as they require.**

**A student who elects Principles of Science (SCI 11 and 12) must take two semesters at Baruch School as described in its Curriculum Handbook.**

**Language Requirements for Business and Commerce Transfer Programs**

All students who have had French, German, Italian, Russian or Spanish in high school must take a language placement examination before being assigned to the appropriate course level based upon the following:

- A student who has taken 4 years of a foreign language in high school is required to complete 2 semesters of that foreign language.
- A student who has taken 3 or 3½ years of one of the above languages in high school is required to complete 2 semesters of that foreign language. To satisfy the language requirements at Hunter College, the student is advised to elect one additional semester of that language.
- Students who have had less than 3 years of high school language are advised to plan on making up this deficiency in Summer Session.
- Students who have taken 2 or 2½ years of the above languages must take 4 semesters of that language.
- Students starting a new language must complete 4 semesters of French, German, Italian, Russian or Spanish.
- Students presenting high school Hebrew or Latin are permitted to continue their high school language at another college, if they so desire.
THE PROGRAM IN DATA PROCESSING

The field of Data Processing is rich in career opportunities. Business organizations and government agencies use computers to perform such essential functions as inventory control, sales forecasting, production scheduling, statistical analysis and accounting applications.

Trained data processing personnel are in demand because of the ever-growing use of computers. All predictions point to continued opportunities for qualified manpower in this expanding field.

Starting salaries are excellent for both men and women who qualify in the areas of systems analysis, programming, computer operations and the use of unit record equipment.

This college offers an unusual opportunity to earn an Associate in Applied Science degree in Data Processing through a carefully planned two-year curriculum.

The Data Processing Curriculum provides a well-grounded program of:

- General Education in Liberal Arts and Sciences
- Business Background Preparation
- Data Processing Specialization in Machine Operations or in Programming and Systems.

Computers are machines capable of storing (remembering) instructions, and using these data to perform specific functions such as accepting, reorganizing, analyzing and furnishing at high speed the required specific information.

Programmers write the instructions for the machines. The program is a set of instructions written by trained personnel to tell the machines what to do and how to do it.

Systems Analysts are trained personnel who design and develop procedures through the application of Electronic Data Processing (EDP). They incorporate computers for the efficient organization and flow of data or information in suitable form for effective management and decision-making.

Curriculum in Data Processing
Machine Operations Option
68-69 Credits required for the A.A.S. Degree

<table>
<thead>
<tr>
<th>Course No.</th>
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<th>Credit</th>
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<th>Credit</th>
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<td>English Composition</td>
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<td>(choose one)</td>
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<td>HIS 12</td>
<td>History of Civilization I</td>
<td>3</td>
<td>History of Civilization II</td>
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<td>ACC 11</td>
<td>Punched Cards and Basic Wiring</td>
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<td>DAT 21</td>
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<td>Advanced Wiring Concepts</td>
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Total 17 1/2

Total 17 1/2
### SECOND YEAR

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<td>SPH 11</td>
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<td>ACC 12</td>
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<td>4</td>
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<tr>
<td>BUS 41</td>
<td>Business Statistics</td>
<td>3</td>
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<tr>
<td>DAT 22</td>
<td>Machine Accounting Applications I</td>
<td>3</td>
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<td>BUS 41</td>
<td>Business Statistics</td>
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<td>DAT 22</td>
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**Curriculum in Data Processing**

**Programming and Systems Option**

**68 Credits required for A.A.S. Degree**

### FIRST YEAR

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<td>History of Civilization</td>
<td>3</td>
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<td>MTH 17</td>
<td>College Algebra</td>
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<td>Business Mathematics</td>
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<td>Introduction to Systems</td>
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### SECOND YEAR

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<td>DAT 41</td>
<td>Advanced Programming</td>
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<td>Advanced Systems Analysis</td>
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<td>Speech Fundamentals</td>
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<tr>
<td>ACC 12</td>
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<tr>
<td>BUS 41</td>
<td>Business Statistics</td>
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### Fourth Semester

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<td>Art Appreciation</td>
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<td>MUS 11</td>
<td>Music Appreciation Elective</td>
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<td>FIN 31</td>
<td>Principles of Finance</td>
<td>3</td>
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<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
<td>3</td>
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<td>DAT 23</td>
<td>Machine Accounting Applications 2</td>
<td>3</td>
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<td>DAT 50</td>
<td>Management of Data Processing</td>
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<td></td>
<td><strong>Total</strong></td>
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**BIO 18, Human Physiology; SCI 11, Principles of Science 1; or any other single semester science course.**

*May be waived for Evening Session students with approval of curriculum advisor.*
THE PROGRAMS IN CHEMICAL TECHNOLOGY

Chemistry is one of today's rapidly expanding fields. The demand for technicians and chemists is ever increasing. Trained personnel are employed in theoretical and applied research, and in development, utilization and testing of the thousands of new compounds appearing every year—pharmaceuticals, plastics, metals, alloys, fuels, textiles and ceramics. A career in the chemical field may lead to employment in a laboratory, a plant, or an office. Opportunities are found both in the technical and commercial branches of the work as laboratory technicians, research assistants, or sales personnel.

The programs in Chemical Technology offered by Bronx Community College are designed to give the student a firm foundation in the theoretical and practical concepts of chemistry, physics, biology, and mathematics, preliminary to specialization. Students have, in the advanced laboratory courses, an opportunity to become acquainted with current practices and techniques of industry and to use modern industrial equipment. Knowledge of actual manufacturing practices is obtained through visits to industrial plants.

The curriculum in Chemical Technology offers three areas of specialization leading to the A.A.S. degree. These areas are: (1) Chemical Technology; (2) Pre-Pharmacy Option, leading to the third year of a College of Pharmacy, and (3) the Plastics Technology Option.

In the Pre-Pharmacy option, a special program is offered for students with interest in a pharmacy career. Students take a two-year course for which they receive complete, officially-approved credit on admission to the third year of the five-year pharmacy course at Colleges of Pharmacy such as those at Columbia, Fordham and St. John's Universities. Typical vocational opportunities immediately upon graduation include laboratory technician, market researcher, pharmacist technician and research assistant. After further training and experience, a student may wish to pursue such occupations as pharmacist, chemical salesman, control analyst, laboratory supervisor, pilot-plant operator and production supervisor.

The Plastics Technology option is an experimental program to be instituted in September, 1967. This is a career program which will prepare the student for work in the plastics industry as a plastics technician, injection molding machine operator, extruder operator, thermoforming machine operator, blow molding machine operator, calendaring operator, plastics printing and finishing operator, plastics fabricating and assembling operator, mold making technicians, mold designing technicians, plastics machine repair maintenance or plastic sales.

Students interested in a professional career in chemistry or chemical engineering should take the Liberal Arts and Sciences or the Engineering Science program leading to later concentration and specialization at a four-year college and graduate-professional school.
## 1. Curriculum Pattern for the Chemical Technology Program

**65 1/2 Credits required for A.A.S. Degree**

### FIRST YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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<td>ART 11</td>
<td>Art Appreciation (or)</td>
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<tr>
<td>MUS 11</td>
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<tr>
<td>ENG 11</td>
<td>English Composition I</td>
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<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
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<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
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<tr>
<td>CHM 11</td>
<td>General College Chemistry I</td>
<td>4</td>
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<tr>
<td>MTH 17</td>
<td>College Algebra</td>
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**Total 16 1/2**

### SECOND YEAR

<table>
<thead>
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<tbody>
<tr>
<td>HIS 12</td>
<td>History of Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>CHM 31</td>
<td>Organic Chemistry I</td>
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<td>CHM 33</td>
<td>Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>PHY 22</td>
<td>Technical Physics I</td>
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<tr>
<td>ASP</td>
<td>* Electives</td>
<td>3</td>
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**Total 17**

* May be chosen from English, Speech, Music, Art, Social Studies, Modern Languages, or selected Business courses.

### 2. Curriculum Pattern for Pre-Pharmacy Option**

**66 1/2 Credits required for A.A.S. Degree**

### FIRST YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
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<tr>
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<td>English Composition I</td>
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<td>Speech Fundamentals</td>
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<td>Intro. to Physical Education</td>
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<td>General Biology I</td>
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<td>General College Chemistry I</td>
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**Total 17 1/2**

### SECOND YEAR

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<td>Organic Chemistry II</td>
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<td>Physical Chemistry</td>
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<td>CHM 45</td>
<td>Industrial Analysis</td>
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<td>CHM 46</td>
<td>Introduction to Chemistry II</td>
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**Total 16**

*May be chosen from English, Speech, Music, Art, Social Studies, or Modern Languages.**

**The student who pursues this option in Chemical Technology and achieves the required index, may be accepted for admission to the third year of the pharmacy course at Columbia, Fordham or St. John's Universities.**

**Total 17**
## CHEMICAL TECHNOLOGY

### 3. Curriculum Pattern for Plastics Technology

63½ Credits required for A.A.S. Degree

### FIRST YEAR

<table>
<thead>
<tr>
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<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>CHM 15</td>
<td>Fundamentals of Modern Chemistry</td>
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</tr>
<tr>
<td>MEC 11</td>
<td>Engineering Graphics I</td>
<td>2</td>
</tr>
<tr>
<td>PLS 11</td>
<td>Fundamentals of Plastics</td>
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### SECOND YEAR

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<tbody>
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<td>PLS 31</td>
<td>Plastic Processing I</td>
<td>3</td>
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<tr>
<td>PLS 35</td>
<td>Design of Plastics Products I</td>
<td>2</td>
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<tr>
<td>PLS 37</td>
<td>Fabrication I</td>
<td>3</td>
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<tr>
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<td>Speech Fundamentals</td>
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### THIRD SEMESTER

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<td>Plastic Processing 2</td>
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<tr>
<td>PLS 36</td>
<td>Design of Plastics Products 2</td>
<td>2</td>
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<td>PLS 38</td>
<td>Fabrication 2</td>
<td>3</td>
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<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
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<tr>
<td>PLS 41</td>
<td>Reinforced Plastics</td>
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<td>ART 11</td>
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</table>
THE PROGRAM IN ENGINEERING SCIENCE

(The first two years of the Engineering sequence.)

Everyday we learn about new ideas, theories, products and processes which have been created by well-trained scientists and engineers of the Atomic Space Age.

More men and women are needed and must be prepared to advance the frontiers of engineering. Opportunities are unlimited since the fields of engineering, architecture, and science are so diversified that one may enter any of a number of specialized types of work.

The Engineering Science program is designed for students with a special interest in engineering, architecture, or physical science. Scientists and engineers need rigorous preparation for their professions—especially in mathematics and basic science. The program in pre-engineering and pre-architectural studies requires that professionals in science and engineering be citizens of sound judgment, broad wisdom and knowledge of humanities. Thus, the curriculum includes a substantial proportion of courses in the humanities.

The curriculum is integrated with the typical Engineering curriculum; therefore, transfer is facilitated to four-year engineering colleges. Specific transfer arrangements have been made with the Schools of Engineering at The City College, Polytechnic Institute of Brooklyn and New York University. Transfer is also possible to other engineering schools, both in and out of the New York City area. Students are also well prepared to pursue study for the B.S. degree in physics and allied sciences.

The accompanying curriculum pattern, with slight modification, prepares the student for continuation in a program leading to a bachelor’s degree in architecture. Qualified graduates of this Engineering Science program are assured entrance to the program in Architecture at the City College, or they may transfer to other schools of architecture.

Many careers are open to graduates of engineering colleges, schools of architecture, or four-year science courses, in such fields as:

<table>
<thead>
<tr>
<th>Engineering</th>
<th>Architecture</th>
<th>Science</th>
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</thead>
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<tr>
<td>Chemical</td>
<td>Architectural Engineering</td>
<td>Chemistry</td>
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<td>Civil</td>
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<td>Nuclear Science</td>
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<td>Industrial</td>
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<td>Physics</td>
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<td>Statistics</td>
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<tr>
<td>Nuclear</td>
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<td>Teacher of Mathematics or Science</td>
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</table>
## Curriculum Pattern for Engineering Science

(30 first two years of the Engineering sequence)

64½ Credits Required for the A.A. Degree

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART 11</td>
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<td>English Composition</td>
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<td>HIS 11</td>
<td>Intro. to Physical Education</td>
<td>1½</td>
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<tr>
<td>PHY 31</td>
<td>Engineering Physics</td>
<td>4</td>
</tr>
<tr>
<td>MTH 31</td>
<td>Analytic Geometry and Calculus</td>
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<tr>
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**Total 15½**

**SECOND YEAR**

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<tr>
<td>MTH 33</td>
<td>Analytic Geometry and Calculus</td>
<td>5</td>
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<tr>
<td>CHM 12</td>
<td>Chemistry</td>
<td>4</td>
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<tr>
<td>PHY 33</td>
<td>Engineering Physics</td>
<td>4</td>
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<tr>
<td>MEC 12</td>
<td>Engineering Graphics</td>
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**Total 18**

**Third Semester**

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<th>Course Title</th>
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<td>SPH 11</td>
<td>Speech Fundamentals</td>
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<tr>
<td>HLT 91</td>
<td>Personal and Community Health</td>
<td>1</td>
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<tr>
<td><strong>MTH 34</strong></td>
<td>Advanced Mathematics for Engineers</td>
<td>4</td>
</tr>
<tr>
<td><strong>PHY 41</strong></td>
<td>Electricity and Magnetism</td>
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<tr>
<td><strong>PHY 51</strong></td>
<td>Atomic and Nuclear Physics</td>
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<td>PHY 34</td>
<td>Analytical Mechanics</td>
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<td>MEC 51</td>
<td>Descriptive Geometry</td>
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<tr>
<td>ORI 45</td>
<td>Engineering Science</td>
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</table>

**Total 13½**

**Fourth Semester**

**Pre-Architecture students may omit MTH 34 (4 cr) and substitute General Education-Liberal Arts electives totaling at least 3 credits, permitting the degree to be granted at 63½ credits.***

***Optional elective.

### THE PROGRAMS IN ENGINEERING TECHNOLOGIES

Amazing progress is being made in the fields of engineering today. The tremendous growth of our economy rests on a highly developed technology which produces practical results from the visions of the scientist and engineer. At Bronx Community College two curricula are offered for students desiring to prepare for a career as an engineering technician in the engineering technologies. **Electrical Technology**, a two-year curriculum leading to the A.A.S. degree, is designed for students who are interested in the electrical field, while the **Mechanical Technology** curriculum, a two-year program leading to the A.A.S. degree, is planned for those who have an interest in a mechanical field. Both curricula demand that the students have indicated aptitude and competence in mathematics and science.

The curricula in Electrical and Mechanical Technologies prepare students for careers as engineering technicians. Well-trained engineering technicians...
needed in the design, building, testing, and maintenance of complex devices which are part of our industrial economy. These college programs are intended to provide broad basic technical competence, with specialization introduced through a series of technical courses and an elective in the fourth semester.

The student is offered experience in laboratories that are well equipped and reproduce conditions found in industry. Field trips are made to industrial installations to maintain a proper perspective on actual facilities in which the student may seek employment upon graduation.

The Engineering Technologies curricula offered by this college are accredited by the Engineer’s Council for Professional Development (ECPD). Although these curricula are intended primarily to prepare the student for immediate employment in a career of his choice in the electrical engineering or mechanical engineering fields, a substantial portion of the credits taken is transferable to engineering programs, both at this college and others. Students who plan to continue their studies at a four-year college and eventually earn a baccalaureate degree should enroll in the Engineering Science curriculum (see page 93).

**ELECTRICAL TECHNOLOGY**

The curriculum in Electrical Technology is intended for high school graduates who are interested in electronics and electricity and have good preparation and competence in mathematics and science. The program of study includes courses that cover the fundamentals of electric circuits, electronics, power, and machinery. Physics and mathematics provide a broad basic background.

Electives in power systems, transistor circuits, FM and microwaves, television and computer theory are offered in the fourth semester and enable the student to specialize in the field of his choice. The laboratory courses feature the latest equipment and techniques and simulate industrial and research laboratories. Stress is placed upon individual development and responsibility.

To help develop cultured and responsible members of the community, courses in the liberal arts are an important part of the curriculum. The graduate of this program is well prepared to continue study and growth both in his professional life and as a well-educated citizen.

Many of our Electrical Technology students transfer to the Engineering Science program during their stay at Bronx Community, or after they have received their A.A.S. degrees. Many of the credits are transferable and the training at the Electrical Technician's level provides a good basis for successful study in the Engineering courses.
A special opportunity exists for those students interested in a career in teaching industrial arts in the secondary schools. In such cases, the opportunity for transfer with full credit to a four-year college in the City or State Universities, or elsewhere, is available.

Competent engineering technicians are needed to design, build, test and maintain the complex electronic devices that are a necessary part of our modern complex industrial structure and our expanding research activities. The translation of the spectacular systems that are being developed today into down-to-earth working equipment is in part the result of the many electrical engineering technicians taking their places in the engineering team.

The graduate is prepared to undertake the following jobs:

- Electrical Draftsman
- Electrical Inspector
- Industrial Salesman
- Customer Engineer
- Studio Technician
- Research Laboratory Technician
- Technical Writer
- Components Tester
- Audio and High Fidelity Specialist

With further training and experience:

- Product Designer
- Test Engineer
- Field Engineer
- Sales Engineer
- Development Engineer
- Quality Control Supervisor
- Technical Editor
- Test Laboratory Supervisor
- Teacher of Industrial Arts
- Technical Institute Teacher
- Production Engineer

---

Curriculum Pattern for Electrical Technology

**72 1/2 Credits required for the A.A.S. Degree**

### FIRST YEAR

#### First Semester

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<tr>
<th>Course No.</th>
<th>Course Title</th>
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<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 17</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>PHY 21</td>
<td>Technical Physics 1</td>
<td>4</td>
</tr>
<tr>
<td>ELC 11</td>
<td>Intro. to Elec. Circuits</td>
<td>3</td>
</tr>
<tr>
<td>MEC 11</td>
<td>Engineering Graphics 1</td>
<td>2</td>
</tr>
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<td>ORI 14</td>
<td>Engineering Technology, Freshman</td>
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#### Second Semester

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<td>ELC 31</td>
<td>Networks and Trans. Lines</td>
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<td>Communic. Electronics</td>
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<td>Electric Product Design and Measures</td>
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<td>Mechanical Technology</td>
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### SECOND YEAR

#### Third Semester

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<td>Personal and Community Health</td>
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<td>Networks and Trans. Lines</td>
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<td>Electric Product Design and Measures</td>
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#### Fourth Semester

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<td>MUS 11</td>
<td>Music Appreciation</td>
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<td>SPH 11</td>
<td>Speech Fundamentals</td>
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<td>Elec. Machines and Power</td>
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<td>ELC 45</td>
<td>Electronics Project Lab.</td>
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<td>Pulse and Digital Circuits</td>
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<td>ELC 20</td>
<td>Senior Elective</td>
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<tr>
<td>ELC 47</td>
<td>E.E. Tech. Problems</td>
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<td><strong>Total</strong></td>
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MECHANICAL TECHNOLOGY

Mechanical Technology covers the design, production, installation and operation of machines, tools and all types of metal products and devices. It is concerned with devices and machines that convert the chemical energy stored in coal, oil, gas and nuclear fuels into mechanical power. It is also concerned with the machines that then use this power to serve the needs of mankind.

The field of Mechanical Technology offers both a wide range and a large number of challenging occupational opportunities, including a growing need for specialists. In fact, industry is turning more and more to the engineering technician to assume responsibilities previously held by engineers.

The curriculum in Mechanical Technology is intended for high school graduates who have an interest in a mechanical field and who have aptitude in science and mathematics. The comprehensive program emphasizes sound basic training, includes a solid core of general education and provides specialization through a choice of elective offerings.

The practical work done in the laboratories is planned to reproduce the actual conditions of industry. The equipment is of industrial caliber and the procedures duplicate, as far as possible, current practice. Visits are made to industrial installations to maintain a proper perspective on actual manufacturing facilities.

A Mechanical Technology student may transfer to the Engineering Science program during his stay at Bronx Community College, or after he has received his A.A.S. degree. Many of the credits are transferable and the training at the Mechanical Technician's level provides a good basis for later successful study in the Engineering courses.

A special opportunity exists for those students interested in a career in teaching industrial arts in the secondary schools. The opportunity of transfer with substantial credit to a four-year college in City or State University or elsewhere is available.

The graduate is prepared to undertake the following jobs:

- Mechanical Technician
- Draftsman
- Heat Treater
- Inspector
- Technical Sales Representative
- Laboratory Technician
- Materials Tester
- Instrumentation Technician
- Technical Writer

With further training and experience:

- Designer
- Metallurgist
- Quality Control Engineer
- Sales Engineer
- Test Engineer
- Production Supervisor
- Plant Engineer
- Materials Specialist
- Teacher of Industrial Arts
- Technical Institute Teacher
- Technical Editor
# Curriculum Pattern for Mechanical Technology

**72 1/2 Credits required for A.A.S. Degree**

## FIRST YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>1/2</td>
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<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 17</td>
<td>College Algebra</td>
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<td>PHY 21</td>
<td>Technical Physics I</td>
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<td>MEC 11</td>
<td>Engineering Graphics I</td>
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## SECOND YEAR

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<td>CHM 15</td>
<td>Fund. of Modern Chemistry</td>
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<td>Engineering Graphics 2</td>
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<td>Engineering Mfg. Processes 2</td>
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<table>
<thead>
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<th>Course No.</th>
<th>Course Title</th>
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<td>ENG 12</td>
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<td>3</td>
</tr>
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<td>HLT 91</td>
<td>Personal and Community Health</td>
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<td>MEC 28</td>
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<td>MEC 31</td>
<td>Machine Design</td>
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<td>Thermo. Fluid Dynamics and Heat Transfer</td>
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<td>MEC 35</td>
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<tr>
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</table>
The liberal arts and sciences develop intellectual competence and encourage independence in the pursuit of knowledge. They inculcate dedication to the search for truth and to the service of humanity, making citizens more responsive and responsible.

Required and elective courses in the liberal arts and sciences stress the values by which men live, esthetics, language, literature, fine and performing arts, social studies, the laws of nature, speech, philosophy, psychology, mathematics, and the cultivation of a sound body.

The Associate in Science (A.S.) degree options for Biology, Chemistry, Mathematics, and Physics provide the necessary basic courses in Science and Mathematics to continue as a major at a four-year college.

A realistic liberal or humanistic education prepares students to lead productive and creative lives. After successfully completing the curriculum and earning an A.A. or A.S. in Liberal Arts and Sciences, students usually transfer to the third year of a senior college to prepare for a career in one of the following fields:

- Acting
- Biology
- Business Administration
- Chemistry
- Clergy
- Dentistry
- Education
- Journalism
- Laboratory Research
- Law
- Library Science
- Medicine
- Physics
- Psychology
- Research
- Science
- Social Work
- Statistics
- Teaching
- Theatre
- Writing

Curriculum Pattern for Liberal Arts and Sciences (Transfer)
H.S. language continued in college
(Review or condition: Language 11, 12, or 13 may be required)
64 credits required for the A.A. Degree

**FIRST YEAR**

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<td>History of Civilization I</td>
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<tr>
<td>*MTH 13</td>
<td>Survey of Mathematics</td>
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<tr>
<td>BIO 11</td>
<td>General Biology I</td>
<td></td>
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<tr>
<td>or</td>
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<td>4</td>
</tr>
<tr>
<td>CHM 11</td>
<td>Chemistry I</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY 11</td>
<td>College Physics I</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCI 11</td>
<td>Principles of Science I</td>
<td></td>
</tr>
<tr>
<td>or</td>
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99
### Curriculum Pattern for Liberal Arts and Sciences (Transfer)

**First Year**

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<td>Elem. Language 1</td>
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**Second Year**

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<td>Music Appreciation 1</td>
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<td>Speech Fundamentals 2</td>
<td></td>
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<tr>
<td>ENG 24</td>
<td>English Literature 1</td>
<td></td>
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<tr>
<td>GOV 21</td>
<td>Government 3</td>
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**First Semester**

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</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>*MTH 14</td>
<td>Survey of Mathematics 2</td>
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<td>12</td>
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### Second Year

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<td>MUS 11</td>
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<tr>
<td>ENG 24</td>
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<td>1/2</td>
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<tr>
<td>GOV 21</td>
<td>Government 3</td>
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* Students planning to major in mathematics should substitute MTH 31 (4 credits); MTH 32, 33 (5 credits each).
‡ Students desiring to take electives in art or music in the third or fourth semester may substitute ART 11 or MUS 11, completing HLT 91 in second year.
Students majoring in science or mathematics may substitute five credits of their major for GOV 21 or ECO 21 (3 credits) and SPH 12 (2 credits). ‡ Electives to complete the required 64 credits may be selected from approved LAS courses and the following Business and Commerce courses: ACC 11, 12, 13, 14; LAW 41, 47; FIN 31; BUS 41; RET 11; 14, 31, 33, 35, 41, 43; SEC 47, 48; DAT 11; STE 11*, 12*; TYP 11*, 12*. (*See Committee on Academic Standing Codification, LAS Electives.)
### Liberal Arts and Sciences

Curriculum Pattern for Liberal Arts and Sciences (Transfer)

**1. Biology Option**

65-67 Credits required for the A.S. Degree

#### First Year

<table>
<thead>
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<tr>
<td>CHM 11</td>
<td>General College Chemistry</td>
<td>4</td>
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<td>*MTH 17</td>
<td>College Algebra</td>
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<td>General Chemistry with Qualitative Analysis</td>
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<td>Analytic Geometry and Calculus I</td>
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<td>MTH 32</td>
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<td>HLT 21-81</td>
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#### Second Year

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<td>BIO 11</td>
<td>General Biology I</td>
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<td>†CHM 31</td>
<td>Organic Chemistry I</td>
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<td>College Physics I</td>
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<td>†Elective</td>
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<td>3</td>
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<td><strong>Total</strong></td>
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<td></td>
<td>16</td>
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</table>

*Students who have had Advanced Algebra must take MTH 31, Analytic Geometry and Calculus I, and continue with MTH 32, 33.

**See language requirements for A.S. degree, page 104.

†The third year of science will be either CHM 31, 32, Organic Chemistry; or PHY 11, 12, College Physics, and will be selected with approval of the students’ curriculum advisor.

‡To be chosen from Social Studies or Humanities.
Curriculum Pattern for Liberal Arts and Sciences (Transfer)
2. Chemistry Option

64-67 Credits required for A.S. Option

<table>
<thead>
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<td>History of Civilization I</td>
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<td>CHM 11</td>
<td>General College Chemistry</td>
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<td>College Algebra</td>
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<td>MTH 31</td>
<td>Analytic Geometry and Calculus I</td>
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<tr>
<td>or</td>
<td>or</td>
</tr>
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<td>MTH 33</td>
<td>Analytic Geometry and Calculus II</td>
</tr>
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<td>CHM 31</td>
<td>Organic Chemistry I</td>
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* Students who have had Advanced Algebra must take MTH 31, Analytic Geometry and Calculus, and continue with MTH 32, 33.

** See language requirements for A.S. degree, page 104.

§ Biology, BIO 11, or Physics, PHY 31, may be substituted with the approval of the curriculum advisor.

† To be chosen from Social Studies or Humanities.

‡ The elective credits in science, humanities or social studies must be fulfilled from courses in these areas with the approval of the student's curriculum advisor.
<table>
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<tr>
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<td>HISL 12</td>
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<td>HLT 21-81</td>
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**FIRST YEAR**

**SECOND YEAR**

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<td>**Total: 16-17</td>
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*Students who have not completed Advanced Algebra are required to complete MTH 17, College Algebra, as the prerequisite to MTH 31, Analytic Geometry and Calculus.*

*The two years of science requirements must be fulfilled from PHY 31, 32, 33 and 34, Physics I, 2, 3, and Mechanics; or one year each of two of the following: BIO 11, 12; General Biology I, 2; CHM 11, 12; General Chemistry I, 2; PHY 11, 12, College Physics.*

§See language requirements for A.S. degree, page 104.

†These credits must be fulfilled from the area of Mathematics, MTH 35, Vector Calculus and Linear Algebra, Humanities or Social Studies with the approval of the student's curriculum advisor.

‡To be chosen from Social Studies or Humanities.

Curriculum Pattern for Liberal Arts and Sciences (Transfer) 4. Physics Option

<table>
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<tbody>
<tr>
<td>ENGL 11</td>
<td>English Composition 1</td>
<td>3</td>
<td>ENGL 12</td>
<td>English Composition 2</td>
<td>3</td>
</tr>
<tr>
<td>HISL 11</td>
<td>History of Civilization 1</td>
<td>3</td>
<td>HISL 12</td>
<td>History of Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>PHY 31</td>
<td>College Physics</td>
<td>4</td>
<td>PHY 32</td>
<td>College Physics</td>
<td>4</td>
</tr>
<tr>
<td>MTHL 31</td>
<td>Analytic Geometry and Calculus</td>
<td>1</td>
<td>MTHL 32</td>
<td>Analytic Geometry and Calculus</td>
<td>5</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
<td>MUSL 11</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
<td>ARTL 11</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>**Total: 161/2</td>
<td></td>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>1/2</td>
</tr>
</tbody>
</table>

**FIRST YEAR**

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>§</td>
<td>Modern Language</td>
<td>4</td>
<td>§</td>
<td>Modern Language</td>
<td>4</td>
</tr>
<tr>
<td>MTHL 33</td>
<td>Analytic Geometry and Calculus</td>
<td>5</td>
<td>MTHL 34</td>
<td>Advanced Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>**</td>
<td>**Science</td>
<td>4</td>
<td>**</td>
<td>**Science</td>
<td>4</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Personal and Community Health</td>
<td>1</td>
<td>**</td>
<td>Elective</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>**Total: 16</td>
<td></td>
<td></td>
<td>**Total: 16-17</td>
<td></td>
</tr>
</tbody>
</table>

*Students who have not completed Advanced Algebra are required to complete MTH 17, College Algebra, as the prerequisite to MTH 31, Analytic Geometry and Calculus.*

*The two years of science requirements must be fulfilled from PHY 31, 32, 33 and 34, Physics I, 2, 3, and Mechanics; or one year each of two of the following: BIO 11, 12; General Biology I, 2; CHM 11, 12; General Chemistry I, 2; PHY 11, 12, College Physics.*

§See language requirements for A.S. degree, page 104.

†These credits must be fulfilled from the area of Mathematics, MTH 35, Vector Calculus and Linear Algebra, Humanities or Social Studies with the approval of the student's curriculum advisor.

‡To be chosen from Social Studies or Humanities.
### SECOND YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MTH 33</strong></td>
<td>Modern Language</td>
<td>4</td>
<td><strong>HLT 91</strong></td>
<td>Personal and Community Health</td>
<td>1</td>
</tr>
<tr>
<td><strong>PHY 33</strong></td>
<td>Analytic Geometry and Calculus 3</td>
<td>5</td>
<td><strong>$PHY 41$</strong></td>
<td>Electricity and Magnetism</td>
<td>3</td>
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<tr>
<td><strong>§PHY 34</strong></td>
<td>College Physics 3</td>
<td>4</td>
<td><strong>§§</strong></td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>§§</strong></td>
<td>Mechanics</td>
<td>4</td>
<td><strong>§§</strong></td>
<td>Elective</td>
<td>3-4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>17</td>
<td><strong>Total</strong></td>
<td></td>
<td>14-15</td>
</tr>
</tbody>
</table>

* Students who have not completed Advanced Algebra are required to complete MTH 31, College Algebra, as the prerequisite to MTH 33, Analytic Geometry and Calculus 3.

** See language requirements for A.S. degree, below.

§ With the permission of his curriculum advisor, a student may substitute General Chemistry 1, 2 for either PHY 34 or PHY 41, and thereby also fulfill the science-humanities elective.

† To be chosen from Science, Humanities or Social Studies, with the approval of curriculum advisor.

---

### Language Requirements for A.S. Degree

A placement examination upon admission is required for students who intend to continue the language studied in high school. The language requirement is two semesters exclusive of any conditioned semesters. (See table below.) Recommended languages are: German, French or Russian. For the B.S. degree, one or two additional semesters of language are usually required. The student may study the additional semester of language in the summer session.

<table>
<thead>
<tr>
<th>H.S. Language</th>
<th>Student Elects to</th>
<th>Must Take</th>
<th>Degree Credit Basis</th>
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</thead>
<tbody>
<tr>
<td>1) 3 years I language</td>
<td>Continue H.S. language</td>
<td>21 and 22</td>
<td>No credit for 11-13 if required by Placement Exam.</td>
</tr>
<tr>
<td>2) 3 years I language</td>
<td>Start new language 11</td>
<td>11 and 12</td>
<td>13, 21 and 22 may be taken as BCC electives.</td>
</tr>
<tr>
<td>3) 2 years I language</td>
<td>Continue H.S. language</td>
<td>13, 21 and 22</td>
<td>No credit for 13 due to entrance condition.</td>
</tr>
<tr>
<td>4) 2 years I language</td>
<td>Start new language 11</td>
<td>11, 12, 13</td>
<td>No credit for 11 due to entrance condition.</td>
</tr>
</tbody>
</table>

* For the B.S. degree one or two additional semesters of language are usually required.
THE PROGRAM IN MEDICAL LABORATORY TECHNOLOGY

The advance of scientific knowledge in the field of medicine has multiplied the need for personnel trained in such areas as X-ray, hematology, serology, histology, and bio-chemistry. Opportunities for service and employment are plentiful for technicians and medical research assistants, in private or government offices, hospitals, laboratories and clinics, research divisions of drug and chemical companies, and in private and public educational and research institutions.

The area of medical laboratory technology offers stimulating life-work. Training in biological and chemical science prepares the student for immediate employment. The Medical Laboratory Technology curriculum is a career program in which the student earns the A.A.S. degree. In addition to taking general education courses, the student has an opportunity to work in up-to-date, newly-equipped laboratories and hospitals to gain extensive experience in the performance of a medical laboratory technologist's duties.

Students will perform the chemical, cytological, bacteriological, histological and other medical laboratory procedures used in the detection, diagnosis and treatment of disease. Such work demands knowledge and skill gained by careful and devoted preparation.

Curriculum Pattern for Medical Laboratory Technology

65½ Credits required for the A.A.S. Degree

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 11 English Composition I</td>
<td>3</td>
<td>ENG 12 English Composition 2</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11 Intro. to Physical Education</td>
<td>1½</td>
<td>HLT 91 Personal and Community Health</td>
<td>1</td>
</tr>
<tr>
<td>HIS 11 History of Civilization I</td>
<td>3</td>
<td>HIS 12 History of Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>BIO 15 Zoology</td>
<td>4</td>
<td>MTH 18 Mathematical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CHM 11 Chemistry I</td>
<td>4</td>
<td>BIO 25 Anatomy and Physiology 1</td>
<td>4</td>
</tr>
<tr>
<td>MTH 17 College Algebra</td>
<td>3</td>
<td>CHM 12 Chemistry 2</td>
<td>4</td>
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<tr>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>Total</strong></td>
<td><strong>18</strong></td>
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<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 11 Art Appreciation</td>
<td></td>
<td>BIO 41 Histology</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td>BIO 43 Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>MUS 11 Music Appreciation</td>
<td>1</td>
<td>BIO 36 Clinical Techniques 2</td>
<td>2</td>
</tr>
<tr>
<td>SPH 11 Speech Fundamentals</td>
<td>2</td>
<td>CHM 41 Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>PSY 21 Psychology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 21 Sociology</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO 26 Anatomy and Physiology 2</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO 35 Clinical Techniques 1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHM 35 Organic Chemistry</td>
<td>4</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Note: No student will be permitted to register for any courses in the second, third, and fourth semesters unless he has satisfactorily completed all prerequisite courses.
THE PROGRAM IN NURSING

Bronx Community College offers a carefully organized curriculum for the education of nurses. The four-semester* curriculum provides a balance of general education and specialized courses. The courses in Nursing are designed to provide theoretical knowledge combined with clinical practice, so as to prepare the student for suitable responsibilities and positions. Special emphasis is placed upon preparation for the direct nursing care of patients in the five major clinical areas: medicine, surgery, obstetrics, pediatrics, and psychiatry.

Students in the full-time Nursing Program become nurses after two academic years of study. Qualified, fully matriculated students attend Bronx Community College tuition-free and have a choice of living in the new Nursing School and Residence Building ("Nursing Center") at the Bronx Municipal Hospital Center,** located at Pelham Parkway and Eastchester Road in the Bronx, or they may live at home. The dormitory facilities are available at no cost to the student, with complete maintenance and health services. In addition, Nursing students receive a monthly scholarship grant from the City of New York to help defray their transportation, books, and miscellaneous expenses. Students who win New York State Regents' Scholarships may receive them at Bronx Community College.

Graduates of the Nursing Program at Bronx Community College receive the A.A.S. degree and are eligible to take the R.N. Licensure Examination given by the State of New York. They may apply to senior institutions to continue for advanced study for the baccalaureate.

The Nursing Program at Bronx Community College is conducted in a professional and academic atmosphere conducive to high standards and achievements. Members of the faculty of the Department of Nursing offer instruction and guidance in clinical experience at Montefiore, Bronx-Lebanon, Lincoln, Veterans' Administration, Bronx State Hospitals, and at the Bronx Municipal Hospital Center, in cooperation with the Department of Hospitals.

Students enjoy valuable supplementary experience through arrangements with other community agencies, such as nursery schools, nursing homes, public health agencies, the Loeb Center for Nursing and Rehabilitation, the Home Care Program of Montefiore Hospital, and day care centers for the aged.

*All students in the Nursing Curriculum are required to attend Bronx Community College for a minimum of two full academic years and take all their nursing courses at this college.
Nursing students may take courses in the Summer Session or in the Evening Session for the purpose of:
a. improving their academic achievement
b. raising their admission qualifications, or
c. lightening their course loads.

**The Bronx Municipal Hospital Center includes the Abraham Jacobi and the Nathan B. VanEffen Hospitals. The Albert Einstein College of Medicine of Yeshiva University is adjacent to the Center.
The Nursing curriculum is registered with, and approved by, the New York State Department of Education, Division of Professional Education. The program is accredited by the National League for Nursing.

Bronx Community College was a demonstration center in the New York State Education Department Associate Degree Nursing Project, supported by the Kellogg Foundation, as a result of which the Department of Nursing has developed new curriculum patterns and improved teaching methods. Since 1962, with grants from the United States Public Health Service, the faculty have experimented with and developed techniques for nursing instruction through the use of closed-circuit television.

The new Nursing Center of Bronx Community College is a thirteen-story building, opened in September, 1964, which houses modern classrooms, laboratories, a library, study halls, a dining hall, music room, swimming pool, and a variety of recreational facilities, as well as the dormitory.

The Nursing profession offers a wide choice of service opportunities, and the courses at Bronx Community College provide the graduate with technical competence and preparation for first-level positions.

---

**Curriculum Pattern for Nursing**

**67 Credits required for the A.A.S. Degree**

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 11</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 21</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>NUR 11</td>
<td>Nursing I</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17 1/2</strong></td>
<td></td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 11</td>
<td>History of Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>SCI 14</td>
<td>Principles of Science</td>
<td>4</td>
</tr>
<tr>
<td>NUR 13</td>
<td>Nursing 3</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 11</td>
<td>Art Appreciation or Music Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>SOC 21</td>
<td>Sociology</td>
<td>3</td>
</tr>
<tr>
<td>NUR 14</td>
<td>Nursing 4</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

108
THE PROGRAM IN PERFORMING ARTS-MUSIC

The renaissance of the arts in our nation, the development of the Lincoln Center complex in New York City, and the grants made available by the Ford Foundation and the federal government are evidences of a national concern with the arts, including Music. There is a growing need for musicians, and especially music teachers. The employment outlook in music education, especially for people who are well qualified as both musicians and teachers, is bright. Graduates with the Bachelor of Music degree will be prepared to be orchestra or ensemble instrumentalists, choral or ensemble vocalists, and teachers of music in private or public institutions. They may serve in schools and in community centers in the music and performing arts "industries" including radio, theater, broadcasting and telecasting.

Students can earn an Associate in Applied Science degree in Music in a two-year program, tuition free, and continue at the New York College of Music to earn a Bachelor of Music degree in an additional two years.

Bronx Community College has entered into a cooperative inter-institutional arrangement with the New York College of Music, a four-year private institution, to develop this program.

The New York College of Music will provide the third and fourth years of the baccalaureate program for those students who successfully complete the Music Curriculum and obtain the Associate in Applied Science degree at Bronx Community College. During the freshman and sophomore years, the New York College of Music will provide, at no cost to the student, private lessons and experience in performing groups. In the junior and senior years, students will be helped by the New York College of Music to meet their tuition costs; no student will be denied the opportunity to continue to the baccalaureate for lack of ability to pay tuition.

In addition to regular requirements, students must meet special standards in musical aptitude and ability, as well as demonstrate proficiency in vocal or instrumental areas, to be determined by tests, auditions and interviews conducted by faculty of Bronx Community College and the New York College of Music.

The first two years of the program will be offered at Bronx Community College, tuition free for matriculated students, with private lessons and group music experience amounting to eight credits offered by the New York College of Music, at no cost to the student. Students will be enrolled at Bronx Community College where they will take sixty credits, with eight credits taken concurrently at the New York College of Music, to meet the requirements for the Associate Degree.
## Curriculum for Performing Arts-Music

### 68 Credits required for A.A.S. Degree

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 11</td>
<td>English Composition</td>
<td>3</td>
<td>ENG 12</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization</td>
<td>3</td>
<td>HIS 12</td>
<td>History of Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
<td>HLT 91</td>
<td>Personal and Community Health</td>
<td>1</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
<td>MUS 22</td>
<td>Choral Perform.</td>
<td>2</td>
</tr>
<tr>
<td>MUS 21</td>
<td>Choral Perform.</td>
<td>1</td>
<td>MUS 32</td>
<td>Orchestral Perform.</td>
<td>2</td>
</tr>
<tr>
<td>MUS 31</td>
<td>Orchestral Perform.</td>
<td>1</td>
<td>MUS 84</td>
<td>Private Instruction</td>
<td>2</td>
</tr>
<tr>
<td>MUS 41</td>
<td>Theory</td>
<td>2</td>
<td>MUS 42</td>
<td>Theory</td>
<td>2</td>
</tr>
<tr>
<td>MUS 51</td>
<td>Ear Training</td>
<td>1</td>
<td>MUS 52</td>
<td>Ear Training</td>
<td>2</td>
</tr>
<tr>
<td>MUS 61</td>
<td>Keyboard</td>
<td>1</td>
<td>MUS 62</td>
<td>Keyboard</td>
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</tr>
<tr>
<td>MUS 71</td>
<td>Sec. Piano</td>
<td>1</td>
<td>MUS 72</td>
<td>Sec. Piano</td>
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<td></td>
<td><strong>Total</strong></td>
<td>16 1/2</td>
<td>MUS 91</td>
<td>Chamber Orchestra</td>
<td>1</td>
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#### SECOND YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCI 11</td>
<td>Science</td>
<td>4</td>
<td>MTH 13</td>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>*</td>
<td>Language</td>
<td>4</td>
<td>*</td>
<td>Language</td>
<td>4</td>
</tr>
<tr>
<td>HLT 28-81</td>
<td>Physical Education (choose one)</td>
<td>1/2</td>
<td>MUS 24</td>
<td>Choral Perform.</td>
<td>4</td>
</tr>
<tr>
<td>ART 21</td>
<td>Art Appreciation</td>
<td>1</td>
<td>MUS 34</td>
<td>Orchestral Perform.</td>
<td>4</td>
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<td>MUS 23</td>
<td>Choral Perform.</td>
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<td>MUS 86</td>
<td>Private Instruction</td>
<td>4</td>
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<td></td>
<td>or</td>
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<td>MUS 44</td>
<td>Theory</td>
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</tr>
<tr>
<td>MUS 33</td>
<td>Orchestral Perform.</td>
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<td>MUS 54</td>
<td>Ear Training</td>
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<td>MUS 85</td>
<td>Private Instruction</td>
<td>2</td>
<td>MUS 64</td>
<td>Keyboard</td>
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<td>MUS 43</td>
<td>Theory</td>
<td>2</td>
<td>MUS 81</td>
<td>Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>MUS 53</td>
<td>Ear Training</td>
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<td></td>
<td><strong>Total</strong></td>
<td>18</td>
</tr>
<tr>
<td>MUS 63</td>
<td>Keyboard</td>
<td>1</td>
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<td>MUS 96</td>
<td>Chamber Chorus</td>
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<tr>
<td>MUS 92</td>
<td>Chamber Orchestra</td>
<td>2</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>17 1/2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*To be taken, if needed, to meet the degree requirements. Otherwise, may be used as elective credits; or another elective may be substituted.*
THE PROGRAM IN X-RAY TECHNOLOGY

The advance of scientific knowledge in the field of medicine and the increasing services offered in hospitals and health centers has multiplied the need for the competent X-Ray technologist. Recent surveys in this area indicate that by 1970, double the present number of X-Ray technologists employed will be needed. The well-qualified technologist will find ready employment in private or government agencies, hospitals, laboratories, and clinics, and in private and public educational and research institutions. Salaries compare favorably with those of other paramedical services.

Those who aspire to be a member of a health team working with doctors and nurses, and who wish to play an important role in the prevention and conquest of disease should plan to become X-Ray technologists. The primary responsibility will be to assist doctors and radiologists in performing the many necessary X-Ray procedures which modern medicine requires in the protection and promotion of good health.

Upon graduation from Bronx Community College with an Associate in Applied Science degree, you can help fill this great demand for X-Ray technologists, Supervisors of X-Ray technologists, Technical Representatives, and Research X-Ray technologists.

Students are encouraged to pursue further studies in order to prepare themselves for more responsibilities, positions as teachers, hospital administrators, administrators in private laboratories and research institutions.

Curriculum Pattern for X-Ray Technology
67½ Credits required for the A.A.S. Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 21</td>
<td>Human Anatomy and Physiology</td>
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<td>PHY 82</td>
<td>Radiation Physics 2</td>
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<td>ENG 11</td>
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<td>MTH 11</td>
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<td>XRY 12</td>
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<td>MUS 11</td>
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<td>PHY 81</td>
<td>Radiation Physics 1</td>
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<td>CLN 12</td>
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<td>HLT 91</td>
<td>Personal and Community Health</td>
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<td>HIS 12</td>
<td>History of Civilization 2</td>
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<td>XRY 14</td>
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<td>XRY 15</td>
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<td>Summer</td>
<td>CLN 16 Clinical Internship 6</td>
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7 COURSE DESCRIPTIONS
EXPLANATION OF SYMBOLS

1. To facilitate processing of grades, the college has instituted a new system of course numbers. The former numbers appear in parentheses at the end of the course title.

2. Prerequisites (prereq.) must be completed with a passing grade before the subsequent course may be taken.

3. Corequisites (coreq.) may be taken simultaneously, or before a given course.

AN EXPLANATION OF CREDIT

1. The allocation of credits to courses is based on New York State Department of Education regulations in higher education.

2. Generally, the formula is that one semester-hour of credit is awarded in a course meeting for 15 weeks for:
   a. each hour of class or lecture for which considerable out-of-class preparation is required; or for
   b. a unit of two or three "laboratory," "shop," "gym," "clinic" or "studio" hours.

3. The term rec (recitation) refers to the traditional recitation-discussion-seminar form. If the number of credits assigned is fewer than the number of hours, not so much preparation is required as in courses in which the formula of one credit for one hour is rigorously applied.

4. The term lect (lecture) means that several sections have been combined into a single group in which the presentation is sometimes accompanied by demonstration and audio-visual material.

5. The term lab (laboratory) indicates that the class meets in a specially equipped area where students may do individualized work in experimentation with instruments, tools and similar equipment.

6. The term clin (clinic) indicates supervised, individualized clinical experience in a hospital setting, including group and individual instruction.

The College reserves the right to limit the number of students registered in any course, or to cancel any course for which there is insufficient enrollment, or to make any changes in prerequisites, course descriptions, credit allocations, schedule and section offerings in the academic year as it may deem necessary for the proper and efficient functioning of the college.
BIOLOGY AND MEDICAL LABORATORY TECHNOLOGY DEPARTMENT

Professor: Dr. White, Head of Department; Associate Professor: Miss Prestwidge; Assistant Professor: Mr. Seyer; Instructor: Mr. Bates, Mr. Costello, Miss Cunningham, Mr. Fuld, Mr. Ford, Mr. Hayde, Mr. Heller, Mr. Kanuck, Mr. Schatz, Mr. Sininsky, Mr. Thomas; College Science Technician: Miss Eckberg, Mrs. Flamholtz, Mrs. Smith.

BIO 11 — General Biology 1 (SB 1)  2 lect  4 lab  4 cr
The study of anatomy, physiology, morphology, taxonomy, ecology, evolution and economic importance at the cellular and organism levels of representative phyla of the plant and animal kingdoms.
For Liberal Arts and Sciences and Pre-Pharmacy students.

BIO 12 — General Biology 2 (SB 2)  2 lect  4 lab  4 cr
A continuation of BIO 11.
Prereq: BIO 11

BIO 15 — Zoology (SB 1.1)  2 lect  4 lab  4 cr
The study of anatomy, physiology, morphology, taxonomy, ecology and economic importance of representative phyla of the animal kingdom. This course stresses especially the relationships of animal parasites to the human organism.
For Medical Lab. Tech. students only

BIO 18 — Human Physiology (SB 8)  4 lect  4 cr
A physiological study of the muscular, integumentary, digestive, nervous, circulatory, excretory, respiratory, endocrine and reproductive systems of the human body; special senses.
For Business Curricula students only.

BIO 21 — Human Anatomy and Physiology (SB 10)  3 lect  3 lab  4 cr
A study of the anatomy and physiology of the integumentary, muscular, digestive, nervous, circulatory, excretory, respiratory, endocrine and reproductive systems of the human body; special senses.

BIO 22 — Medical Terminology (SB 18)  2 lect  2 cr
Acquaintance with medical concepts and scientific principles. Descriptions of various ailments and diseases; tests used in their analyses; treatments and therapeutic techniques for alleviation and cure.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Lecture</th>
<th>Lab</th>
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<tr>
<td>BIO 25</td>
<td>Anatomy and Physiology 1 (SB 5)</td>
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<td>2</td>
<td>4</td>
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<td></td>
<td>A study of protoplasm and the skeletal, muscular, circulatory, digestive, and respiratory systems of the human organism.</td>
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<td>Prereq: CHM 11, BIO 15</td>
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<tr>
<td>BIO 26</td>
<td>Anatomy and Physiology 2 (SB 6)</td>
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<td></td>
<td>Study of human excretory, reproductive and endocrine systems; special senses; metabolism; immunity. Recent advances in prevention of disease.</td>
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<td>Prereq: CHM 12, BIO 25</td>
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<tr>
<td>BIO 28</td>
<td>Bacteriology (SB 11)</td>
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<td>Isolation, culturing and identification of pathogenic and nonpathogenic bacteria; clinical observations of bacterial effects on human organism.</td>
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<td>Prereq: BIO 21</td>
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<tr>
<td>BIO 31</td>
<td>Embryology (SB 3)</td>
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<td>Study of embryological development of frog, pig and chick from gamete stage to adult.</td>
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<td>Prereq: BIO 12</td>
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<td>BIO 35</td>
<td>Clinical Techniques 1 (SB 13)</td>
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<td>Use of basic laboratory tools, glassware, electrical equipment and chemicals in urine analysis, complete blood count, normal and abnormal blood smears, measurements of coagulation of blood, blood sedimentation rate, blood hematocrit, blood typing.</td>
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<td>Prereq: CHM 12, BIO 25, (CHM 35 must be taken concurrently)</td>
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<tr>
<td>BIO 36</td>
<td>Clinical Techniques 2 (SB 14)</td>
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<td>Chemical tests of blood and urine. Determination of calcium, total proteins, albumin, a/g ratio, non-protein nitrogen, liver function, inorganic phosphates, cholesterol, vitamin C, amylase. Paper chromatography and micro-chemical techniques. Use of the analytical balance. Spectrophotometry.</td>
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<td>Prereq: CHM 12, CHM 35, BIO 26, BIO 35, (CHM 41 must be taken concurrently)</td>
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<td>BIO 41</td>
<td>Histology and Microtechniques (SB 4)</td>
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<td>Study and preparation of vertebrate tissues and organs for microscopic study.</td>
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<td>Prereq: M.L.T. — CHM 11, 12, BIO 26</td>
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<td>BIO 43</td>
<td>Microbiology (SB 7)</td>
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<td>Prereq: M.L.T.—BIO 26, CHM 35</td>
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<td>L.A. — CHM 12, CHM 35, BIO 12 and written permission from BIO 43 course instructor</td>
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</table>
BIO 46 — Clinical Techniques for Medical Secretaries 1 (TD 1)

1 lect 2 lab 2 cr

The proficient and accurate use and care of instruments commonly found in a physician's office, such as the microscope, sphygmomanometer, metabulator, electrocardiograph, sterilizer, centrifuge, colorimeter, balance and autoclave.
Prereq: BIO 18

BIO 47 — Clinical Techniques for Medical Secretaries 2 (TD 2)

1 lect 2 lab 2 cr

The common chemical tests and analysis of blood, such as hemoglobin determination, red and white blood counts, differential white blood counts, blood typing, cross matching, Rh factor. Analysis of urine, determining presence of total protein, albumin, sugar, specific gravity, common minerals such as calcium, potassium, and chlorides. Sedimentation rates.
Prereq: BIO 46

X-RAY TECHNOLOGY

CLN 11 — Clinical Internship 1

0 lect 8 lab (clinic) 1 cr

Daily practical experience will be gained in the Department of Radiology at the Hospital of the Albert Einstein College of Medicine and its affiliated hospitals. Students will receive supervised clinical experience utilizing contrast media such as in the gastrointestinal tract, the biliary tract, and the urinary tract. Introduction to general radiographic procedures at this time will include the upper and lower extremities, shoulder girdle, hip joint and upper femur. Film critique sessions will be held each week.
Coreq: XRY 11

CLN 12 — Clinical Internship 2

0 lect 10 lab (clinic) 1 cr

Daily practical experience will be gained in the Department of Radiology at the Hospital of the Albert Einstein College of Medicine and its affiliated hospitals. This will be a continuation of supervised general radiographic procedures to include the pelvic girdle, cervical, thoracic and lumbar spines, chest ribs, bones of the thorax and the abdominal viscera. All phases of pediatric radiography and its application will be stressed. Film critique sessions will be held each week.
Prereq: CLN 11
CLN 13 — Clinical Internship 3
(Summer — 10 weeks) 0 lect 35 lab (clinic) 1 cr
This clinical internship will be further practical applications of Clinical Internship 1 and 2. During this training period, all allotted time will be devoted exclusively to supervised clinical experience at the Hospital of the Albert Einstein College of Medicine and its affiliated hospitals. Prereq: CLN 12

CLN 14 — Clinical Internship 4 0 lect 12 lab (clinic) 1 cr
Daily practical experience will be conducted in the Department of Radiology at the Hospital of the Albert Einstein College of Medicine and its affiliated hospitals. Students will receive supervised practical experience in skull radiography. Examinations of the skull will include the paranasal sinuses, nasal bones, facial bones, sella turcica, mandible and zygomatic arches, etc. Students will also be supervised in the fields of Radiation Therapy and Nuclear medicine. Film critique sessions will be held each week.

CLN 15 — Clinical Internship 5 0 lect 14 lab (clinic) 1 cr
Daily practical experience will be gained in the Department of Radiology at the Hospital of the Albert Einstein College of Medicine and its affiliated hospitals. Students will continue the study of skull radiography which includes procedures involving optic foramina, foreign body localization, Stenvers, Laws, Myers and Owens projections of the Mastoids; will perform special procedures as neuro-radiological examinations, Bronchography, Aortography, Cardioangiography, Arteriography and Arthrography. Film critique sessions will be held each week.

CLN 16 — Clinical Internship 6
(Summer — 10 weeks) 0 lect 35 lab (clinic) 1 cr
Continue practice on topics covered in Semester 4. Prereq: CLN 15

XRY 11 — X-Ray Technology I 3 lect 3cr
Radiographic Technique 1
Introduction to x-ray technology; the definition and nature of professional ethics; a study of departmental administration, darkroom construction and equipment; the photographic process; x-ray film; preparation of developing solutions; care of processing apparatus, the x-ray tube, formation of latent image, intensifying screens and secondary radiation.

Radiation Protection
History of radiation protection, general principles of radiation and
the operation of equipment, radiologic technology, definitions and units of measure.

Radiographic Positioning I
Instruction stressing practical applications in radiographic positioning with emphasis on radiographic planes of the body and topographic anatomy.

Film Critique I
Discussion sessions utilizing radiographic examinations. Emphasis on radiographic quality, penetration, use of exposure factors and positioning covering topics in Semester 1.

XRY 12 — X-Ray Technology 2
Radiographic Technique 2
Prime factors of radiography, grids, factors affecting radiographic quality, filters, contrast and density relationships between time, distance, milliamperage and kilovoltage, photographic effect, body types, tissue, composition, pediatric radiography, examinations requiring contrast media, fast equipment and accessories for immobilization, proper shielding, various types of contrast media, their purpose and possible effects.

Patient Safety in X-Ray Procedures
Proper handling of the seriously ill or injured, a discussion of asepsis, sterilization, disinfection, handling of sterile articles, operating room x-ray procedures, bedside radiography of patients with communicable diseases.

Film Critique 2
Discussion sessions conducted in the same manner and encompassing the topics in Semester 2.

Radiographic Positioning 2
Instruction stressing practical applications dealing with general radiographic procedures and pediatric radiography. Typographical anatomy will be stressed.
Prereq: XRY 11; Coreq: CLN 12

XRY 13 — X-Ray Technology 3
Radiographic Technique 3
Radiation protection to patient and personnel, definitions, maximum permissible dosages, monitoring, total body radiation, genetic effects, interaction of radiation with matter, absorption process, built in shielding devices, protective measures for certain examinations and electrical hazards, special radiological procedures requiring specialized equipment, its function, review of anatomy, purpose of the examination and a discussion of the contrast media employed.
Nuclear Medicine
Review of basic physics and definitions, types and characteristics of radioisotopes, methods of production, diagnostic and therapeutic uses, decontamination and safety procedures, records, terminology and units of measurement, instrumentation and laboratory technique.

Radiographic Positioning 3
Instruction stressing practical applications devoted to radiography of the skull. Proper tube and patient angulation, positioning and technical factors will be stressed.

Film Critique 3
Discussion sessions conducted in the same manner and encompassing the topics in Semester 3.
Prereq: XRY 12; Coreq: CLN 14

XRY 14 — X-Ray Technology 4
6 lect 6 cr

Radiographic Technique 4
Medical and surgical diseases, pathology, etiology, pathological anatomy and physiology, nature and cause of disease, lesions affecting organs or systems with stress on x-ray technique, equipment maintenance, mechanical breakdowns, electrical breakdowns, electrical circuits and test equipment.

Film Critique 4
Discussion sessions conducted in the same manner and encompassing the topics in Semester 4.

General Review
Preparation for the American Registry examination and the New York State Licensure examination, to include a thorough review of radiographic techniques, radiographic positioning, radiation protection, radiation therapy and nuclear medicine.
Prereq: XRY 13; Coreq: XRY 15 and CLN 15

XRY 15 — X-Ray Technology 5
3 lect 3 cr

Radiation Therapy
Review of physical principles, atom, nucleus, electrons, atomic structure, effects of radiation on body tissues, radiation sickness, anemia, effects of total body radiation, usual symptoms and signs. Methods of employing radiation therapy, therapy planning, protective measures, patient care, record keeping, professional relationships and other technical responsibilities.
Professor: Mr. May, Head of Department; Associate Professor: Mr. Kissel, Miss Takei; Assistant Professor: Mr. Cutler, Mr. Edelman, Dr. Elling, Mr. Hirshfield, Mr. Hynes, Mr. Krieger, Mr. Nagel, Mr. Pollack, Dr. Ross, Mr. Ruggiero; Instructor: Mrs. Bluth, Miss Ettinger, Miss Farrelly, Mr. Hirsch, Mrs. Linn, Mr. Weiman; College Science Technician: Mr. Perrine.

**ACC 11 — Fundamental Accounting 1 (TB 1)**  
Prereq or Coreq: (depending upon the student's curriculum) BUS 11

**ACC 12 — Fundamental Accounting 2 (TB 2)**  
Extension of the principles of accounting to partnerships and corporations.  
Prereq: ACC 11

**ACC 13 — Intermediate Accounting (TB 3)**  
Theory and problems of accounting applied to construction, interpretation and use of financial statements; problems of valuation and income determination. Topics covered include assets, liabilities, changes in capital structure, application of funds, working capital changes, investments.  
Prereq: ACC 12

**ACC 14 — Cost Accounting (TB 4)**  
Principles of cost accounting for manufacturing and business; particular consideration of the managerial uses of cost data under the job order and process cost system. Use of estimate, standard and direct costing techniques related to job order and process costing.  
Prereq: ACC 13

**BUS 11 — Business Mathematics (TB 7)**  
Principles and problems of interest, bank discounts, purchase discounts, installment sales, payrolls, depreciation, profit distribution, taxes and insurance.

*For the academic year, 1967-1968, ACC 11 (Fundamental Accounting 1) and ACC 12 (Fundamental Accounting 2) will consist of 2 hours of lecture and 3 hours of recitation for 4 credits.  
**Business Mathematics (BUS 11) is prerequisite to ACC 11 for all students except those matriculated in Liberal Arts and Sciences and Business Administration. BUS 11 is pre or co-requisite to ACC 11 for matriculants in the Business Curriculum with Accounting Specialization.*
BUS 41 — Business Statistics (TB 9) 3 rec 1 lab 3 cr
An introduction to statistical methods as a basis for sound decision-making and operations control in business utilizing the principles of probability, sampling error, estimation and the descriptive methods of frequency distribution, correlation, index numbers and time series analysis. Application to data pertinent to business and economic problems in such areas as accounting controls, production and marketing.

BUS 51 — Business Organization and Management (TB 25) 3 rec 3 cr*
Advantages, limitations and financing of basic forms of business organization. Management problems of organization, policy formation, communication and efficiency with particular reference to personnel and their supervision, budget and automation.

BUS 61 — Business Machines Practice (TB 26) 4 rec 2 cr
The application of specialized business machines to particular office needs. Development of facility in the operation of key driven calculators, rotary calculators, adding-listing machines, billing and bookkeeping machines.

DAT 11 — Data Processing Systems (TB 27) 4 rec 4 cr
Principles of electro-mechanical and electronic data processing and their utilization in accounting procedures. Input-output techniques are studied to acquaint the accountant with the latest methods used to accumulate, process, store and interpret data.

DAT 20 — Punched Cards and Basic Wiring (TB 81) 2 lect 5 lab 4 cr
Principles of punched cards and their application to unit record equipment including the key punch, key verifier, collator, sorter, interpreter, reproducer and the calculator. Basic wiring of the type 407 electric accounting machine. Representative problems requiring utilization of these machines.

DAT 21 — Advanced Wiring Concepts (TB 82) 2 lect 5 lab 4 cr
Detailed presentation of the type 407 electric accounting machine with specific reference to co-selectors, digit selectors, storage units, summary punching and multiple line printing (MLP). Sample problems assigned.
Prereq: DAT 20

DAT 22 — Machine Accounting Applications (TB 83) 8 lab 3 cr
Applications of EAM equipment in the manufacturing and retailing industries as pertain to payroll, general ledger, accounts receivable, accounts payable, production control, inventory control, sales analysis.
Prereq: ACC 11, DAT 21

* For the academic year 1967-1968, BUS 51 (Business Organization and Management) will consist of 1½ hours of lecture and 1½ hours of recitation for 3 credits.
DAT 23 — Machine Accounting Applications 2 (TB 84) 8 lab 3 cr
Applications of EAM equipment in such business service areas as banking, insurance and stock brokerage.
Prereq: ACC 12, DAT 22

DAT 30 — Introduction to Systems (TB 91) 4 lect 4 cr
The approach to a systems study including definition of the problem and scope of study. Flow charting, data controls, systems controls, systems evaluation and implementation. Basic problems are assigned.

DAT 31 — Advanced Systems Analysis (TB 94) 4 lect 4 cr
Continuation of DAT 30 includes forms design and coding systems. Detailed systems design as applied to bookkeeping, punch card and computer equipment.
Prereq: ACC 11, DAT 30

DAT 40 — Basic Computer Programming (TB 92) 3 lect 2 lab 4 cr
Comparison of principle features of various computers available. Detailed consideration of the organization of the data processing system including components, instruction format, storage, looping, index registers, housekeeping. Console control. A computer card system will be stressed. Basic problems in programming.

DAT 41 — Advanced Programming (TB 93) 3 lect 4 lab 4 cr
Tape and random access devices for sorting, merging and file routines. Concept of macro programming. Job timing. Solutions to problems in advanced programming are tested on the computer.
Prereq: ACC 11, DAT 40

DAT 42 — Advanced Programming and Systems Application (TB 95) 2 lect 6 lab 5 cr
Advanced applications problems utilizing automatic programming aids such as COBOL, in industries such as manufacturing and retailing. PERT concept is also illustrated.
Prereq: ACC 12, DAT 41, DAT 31

DAT 50 — Management of Data Processing Installation (TB 85) 3 lect 2 lab 4 cr
Punch card and computer installation management involving machine room layout, controls for input and output, personnel requirements and evaluation, scheduling of work, management requirements, machine room maintenance, computer console operation. Field trips to punch card and computer installations.
Prereq: DAT 22
FIN 31 — Principles of Finance (TB 8) 3 rec 3 cr
Organization and operation of American financial system; consideration of public and private financial institutions. Financial problems of industrial and commercial firms. Methods and procedures of business, foreign trade, and consumer financing. Governmental policies and activities in finance and their effects on prices, interest rates and economic activities.

LAW 41 — Business Law (TB 6) 3 rec 3 cr
Brief survey of the American legal system. Principles of law and application of the Uniform Commercial Code involved in contracts; case material illustrates application of principles to typical business problems.

LAW 45—Medical Law (TB 5) 3 rec 3 cr
Designed to give the student a broad working knowledge of the law as it affects the work of the medical secretarial assistant. The course will include materials relating to medical practice acts; legal relationship of physician and patient; professional liability; physician's public duties and liabilities; types of medical practice—individual partnerships, group practice, employer-employee preparation of reports for workmen's compensation, court litigation.

LAW 47 — Legal Procedures (TB 40) 3 rec 3 cr
Origin and development of common, statutory and constitutional law. Structure and functioning of the judicial system. Typical proceedings, civil and criminal, from initiation to enforcement and judgment. The role of the legal secretary.

RET 11 — Marketing (TB 11) 3 rec 3 cr
Principles and problems of marketing goods and methods of distribution from producer or manufacturer to consumer. Types, functions, practices of wholesalers and retailers in American marketing system. Efficient marketing techniques in the development and expansion of markets.

RET 13 — Textiles (TB 36) 4 rec 4 cr
Characteristics and uses of major textile fibers and fabrics—cotton, wool, linen, silk, rayon, acetate, nylon, polyesters, acrylics, spandex and other synthetics. The processes of weaving, dyeing, printing, finishing; identification of fibers, weaves and fabric finishes.
**RET 14 — Apparel and Accessories—Fashion and Markets (TB 37)** 4 rec 4 cr  
Style, construction and quality of apparel and accessories, such as dresses, suits, shirts, sweaters, hosiery, gloves and shoes. Application of color line and design to fashion; fashion coordination and analysis of fashion trends.  
Prereq: RET 13

**RET 31 — Sales Development (TB 31)** 2 rec 2 cr  
Theory and technique of successful salesmanship pre-approach, customer-centered selling, demonstration of product, handling objections, closing the sale, achieving long-term customer approval and good will. Introduction to sales management philosophy and techniques.

**RET 33 — Retail Buying Techniques (TB 32)** 3 rec 3 cr  
Duties and responsibilities of buyer; practical principles and procedures used to determine consumer demand; when and how much to buy, sources of supply and relations with resources; techniques of merchandising selection; pricing.  
Prereq: RET 11  
Coreq: RET 35

**RET 35 — Retail Merchandising (TB 33.1)** 3 lect 3 cr  
Theory of merchandising and its application to the basic retailing procedures including the mathematics of markup, markdown, gross margin and the use of the retailing method of inventory as a tool for the computation of profits.  
Prereq: ACC 11, BUS 11  
Coreq: RET 33

**RET 36 — Retailing Merchandising (TB 33.2)** 3 lect 3 cr  
The principles and procedures of merchandising as related to stock turnover, stock sales ratio, stock and sales planning, the merchandise plan, model stock, and unit stock control, dollar and unit open-to-buy.  
Prereq: RET 33, RET 35

**RET 41 — Retail Operations and Management (TB 34)** 2 rec 2 cr  
Organization and operation of retail stores; layouts, budgeting; credit procedures; maintenance; personnel employment, training and management; receiving and marking procedures; security; public relations.  
Prereq: RET 11
RET 43 — Retail Advertising and Sales Promotion (TB 35) 3 rec 3 cr
Advertising department organization and procedure; planning, preparation and coordination of external and internal methods of various types of advertising; evaluation and selection of media; development and integration of sales promotion techniques and advertising plans. Prereq: RET 11

RET 51 — Supervised Cooperative Work Experience (TB 38) 1 rec 14 hrs. wk. exp. 2 cr
Employment in a college-approved retailing organization, to gain insight into the selling, merchandising, personnel and administrative practices of retailers. Paid work experience of a minimum of 14 hours per week, supervised and coordinated by a faculty member. A one-hour seminar each week devoted to analysis of the experiences gained on the job, to develop a greater understanding of the retailing operations and practices. Students rated by the employer on job accomplishment. Course required for degree for day students only. (Fully employed evening students will substitute RET 53, Current Retailing Concepts.)

RET 53 — Current Retailing Concepts (TB 39) 2 rec 2 cr
An examination of current retailing management operations. The basis for the adoption of these practices and an analysis of their influence upon trends in retailing techniques. (This course is required instead of RET 51, for the A.A.S. degree in Retail Business Management in the Business Curriculum for evening students.)

RET 61 — International Marketing and Merchandising 2 credits
A study of the international fashion merchandising industry in operation and its role in international fashion marketing conducted through visits and conferences in a tour of European fashion centers.

SEC 34 — Medical Office Practice and Management 1 (TB 12) 1 rec 3 lab 2 cr
Efficient management of offices of physicians, hospitals, and medical laboratories. Development of desirable personal traits, attitudes, and the ethical responsibilities of the medical secretary. Office projects include case records, medical reports, special filing systems and record keeping. Development of skill in the use of transcribing and duplicating machines. Prereq: TYP 13
Prereq. or Coreq: STE 35

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SEC 37 — Medical Office Communications (TB 14) 3 rec 3 cr
Development of effective written communication skills for the medical secretarial assistant. Composition at the typewriter of medical case records from x-ray reports, laboratory analyses, and doctors' diagnoses; letters and reports to patients, private health agencies and services, other physicians, government services, and the courts; communications involved in handling meetings; and collection letters. Skill development in editing and rewriting medical reports and manuscripts.

SEC 41 — Secretarial Practice (TB 54) 4 rec 2 cr
Integration of secretarial skills and cultivation of desirable personal traits, characteristics and attitudes of the executive secretary. A series of realistic secretarial office assignments, including the theory and practice of filing; operation and use of duplicating and transcription machines.
Prereq: STE 13 or 17, TYP 13
Coreq. or Prereq: STE 14 or 18 or STE 32

SEC 45 — School Records and Accounts (TB 53) 2 rec 2 cr
Responsibilities of the school secretary; orientation to the school office; the preparation and completion of reports on accident, organization and payroll; records of school personnel, supplies and textbooks; accounts of school monies; school headquarters forms; filing; standards for school office output.

SEC 47 — Educational Problems of School Secretaries 1 (TB 51) 2 rec 2 cr
SEC 48 — Educational Problems of School Secretaries 2 (TB 52) 2 rec 2 cr
Public relations in modern public education; organization of New York City school system according to bylaws, circulars, manuals, directives; problems related to mental hygiene, student welfare and public guidance, health and safety; simple methods of research and educational statistics. Educational principles and problems concerning the school secretary.

STE 01 — Refresher Shorthand (Gregg) (TB 017G) 4 rec 0 cr
STE 02 — Refresher Shorthand (Pitman) (TB 017P) 4 rec 0 cr
Specifically designed for students who, because of a prolonged lack of use of shorthand, have lost their skills. Principles of shorthand theory are reviewed and extensive drill sessions are used to help the students regain their skills.

STE 11 — Shorthand 1 (Gregg) (TB 17G) 5 rec 3 cr
STE 15 — Shorthand 1 (Pitman) (TB 17P) 5 rec 3 cr
Principles of shorthand theory and development of skill to take dictation of simple materials. Speed of 60 words per minute.
STE 12 — Shorthand 2 (Gregg) (TB 18G) 4 rec 3 cr

STE 16 — Shorthand 2 (Pitman) (TB 18P) 4 rec 3 cr

Dictation, including a systematic review of theory and expansion of vocabulary. Sustained dictation of business materials and pre-transcription training. Speed of 80 words per minute.
Prereq: STE 11 or 15, TYP 11

STE 13 — Shorthand 3 (Gregg) (TB 19G) 4 rec 3 cr

STE 17 — Shorthand 3 (Pitman) (TB 19P) 4 rec 3 cr

Building extensive business vocabulary. Development of fluency in taking high-speed and sustained dictation. Development of transcription techniques. Speed 100 words per minute.
Prereq: STE 12 or 16, TYP 12

STE 14 — Shorthand 4 (Gregg) (TB 30G) 4 rec 3 cr

STE 18 — Shorthand 4 (Pitman) (TB 30P) 4 rec 3 cr

Development of expert dictation speed. Integration of office-style dictation. High speed transcription according to office standards. Speed of 120 words per minute.
Prereq: STE 13 or 17, TYP 13

STE 31 — Legal Shorthand 1 (Gregg or Pitman) (TB 41) 4 rec 3 cr

Dictation and transcription of non-litigation materials with attention to development of legal shorthand vocabulary. Materials include contracts, wills and settlement of estates, trust funds, proceedings in buying and selling real estate, incorporating a business. Minimum speed of 100 words per minute.
Prereq: STE 12 or 16, TYP 12
Prereq. or Coreq: STE 13 or 17, TYP 13, LAW 47

STE 32 — Legal Shorthand 2 (Gregg or Pitman) (TB 42) 6 rec 4 cr

High speed dictation and rapid transcription of litigation papers and materials—pleadings, orders, judgments, stipulations, ETB’s, appeals. Production according to legal office standards of documents, forms and communications. Speed of 120 words per minute.
Prereq: TYP 13, STE 31

STE 34 — Medical Shorthand 1 (Gregg or Pitman) (TB 43) 4 rec 3 cr

Dictation and transcription of material relating to the various medical specialties, such as pediatrics, geriatrics, ophthalmology, orthopedics, obstetrics, and surgery. Familiarity with medical terminology in the attainment of a medical shorthand vocabulary.
Prereq: STE 12 or 16, TYP 12
Coreq. or Prereq: BUS 41, TYP 13, BIO 43, BIO 46
STE 35 — Medical Shorthand 2 (Gregg or Pitman) (TB 44)  
6 rec 4 cr
Dictation and transcription of letters, conferences and hospital reports. Preparation of materials for physicians' reports in connection with workman's compensation claims. Further expansion of the students' medical shorthand vocabulary.
Prereq: TYP 13, STE 34, BIO 46
Coreq. or Prereq: BIO 47

TYP 01 — Refresher Typing  
4 rec 0 cr
Specifically designed for students who have lost their typing skills. Students are given extensive drill sessions so that they may regain their speed and accuracy.

TYP 11 — Typing 1 (TB 20)  
5 rec 2 cr
Development of basic skills in the use of the typewriter. Letter writing, tabulation problems and report writing. Speed of 35 words a minute.

TYP 12 — Typing 2 (TB 21)  
4 rec 2 cr
Emphasis on development of speed and control. Advanced letter writing problems, letter production, manuscript writing and tabulation. Speed of 50 words per minute.
Prereq: TYP 11

TYP 13 — Typing 3 (TB 22)  
4 rec 2 cr
Typing skill at the expert level according to office standards. Special emphasis on integrated office projects. Development of high speed techniques. Speed of 60 words per minute.
Prereq: TYP 12

ORI 41 — Accounting Senior Orientation  
1 rec 0 cr
ORI 42 — Retailing Senior Orientation  
1 rec 0 cr
ORI 43 — Secretarial Senior Orientation  
1 rec 0 cr
ORI 46 — Data Processing Senior Orientation  
1 rec 0 cr
For students in Accounting, Retailing, Secretarial, and Data Processing curricula. A seminar that concerns itself with the subject of continuing education after graduation. Career planning. A survey of employment opportunities and techniques of job-seeking. Preparation of a resume. The candidate's role in a job interview.
CHM 11, 12 — General College Chemistry (SC 1, 2)

The study of the fundamental principles and theories of chemistry including modern aspects of atomic structure and bonding, chemical calculations, states of matter, solutions, equilibria, electrochemistry, properties of nonmetallic and metallic elements, nuclear chemistry, organic chemistry. Laboratory exercises illustrate chemical techniques and principles and include qualitative analysis.

Prereq: for CHM 12: CHM 11. This course may be taken by non-science students to meet the one year science requirement. Chemistry and other science majors should take CHM 22 in the second semester.

CHM 15 — Fundamentals of Chemistry (SC 11)

A short course in the fundamental principles and theories of chemistry with special reference to topics of interest to the technologies. Required of Mechanical Technology students.

CHM 22 — General Chemistry 2 with Qualitative Analysis (SC 21)

A second semester course recommended for Science or Chemistry majors. Emphasis is on solutions, equilibria, acids and bases, ionization equilibria, solubility product, complex ions, oxidation-reduction. A survey of the metallic and nonmetallic elements, organic chemistry and nuclear chemistry. The laboratory work is qualitative analysis of solutions, salts and alloys.

Prereq: CHM 11

CHM 24 — Plastics Chemistry (SC 6)

A study of those aspects of chemistry which relate to the plastics industry. Special emphasis on organic chemistry and chemistry of high polymers.

CHM 31 — Organic Chemistry (SC 3)

The study of structure, nomenclature, properties and reactions of organic compounds including electronic theory and mechanism. Laboratory work encompasses the preparation, purification and identification of representative organic compounds.

Prereq: CHM 12 or CHM 22
CHM 32 — Organic Chemistry 2 (SC 4)
A continuation of CHM 31.
Prereq: CHM 31

CHM 33 — Quantitative Analysis (SC 7)
Theory and laboratory methods of Quantitative Chemical Analysis with laboratory determinations employing gravimetric and titrimetric (volumetric) methods, including acid-base, precipitation and oxidation-reduction reactions; use of chelating agents and analytical instruments.
Prereq: CHM 22

CHM 35 — Fundamentals of Organic Chemistry (SC 5)
A short course designed to present the nomenclature, structure, properties and reactions of typical organic molecules. Laboratory: preparation, properties and identification of typical organic compounds.
Prereq: CHM 12

CHM 41 — Biochemistry (SC 8)
Chemistry of metabolism, electrolytic equilibrium, reaction mechanism, catalysis, oxidation reduction, enzymes, metabolism of carbohydrates, proteins, fats and nucleic acids.
Prereq: CHM 35

CHM 43 — Physical Chemistry (SC 12)
Atomic concepts of matter and energy; nature of gaseous, liquid and solid states; thermochemistry and thermodynamics; homogeneous equilibria; kinetics, electrochemistry, solution theory and colloids.
Prereq: CHM 31, CHM 33

CHM 44 — Chemical Instrumentation (SC 15)
Introduction to the concepts of modern analytical methods. Elementary principles of electronics, and the uses and limitations of individual instruments. Spectrophotometry (visual, ultraviolet and infrared); Polarography, Potentiometry, Gas Liquid Partition Chromatography. Electrogravimetric Methods, Radioactive Techniques, Emission Spectrophotometry and Flame and Atomic Absorption Photometry.
Prereq: CHM 33

CHM 45 — Industrial Analysis (SC 14)
Analysis of representative products of chemical plant operations in the metropolitan area, including petroleum, food, oils and fats, pharmaceuticals and plastics. Instrumentation, using typical industrial equipment. Methods according to ASTM, AOAC, API, USP.
Prereq: CHM 31, CHM 33
CHM 46 — Introduction to Chemical Industry (SC 16)  3 rec  2 cr
Study of procedures used in unit operations in chemical engineering; representative types of equipment used; and observation of practical applications of industrial processes by visits to representative manufacturing plants in the New York metropolitan area.
Prereq: CHM 32, CHM 33

PLASTICS TECHNOLOGY

PLS 01 — Introduction to Plastics (SC 81)  (30 hrs)  10 meetings  0 cr
A presentation of the plastics industry; history, definitions; nomenclature; manufacturing methods; materials, uses and applications. Offered jointly by Bronx Community College and the New York Section of the Society of Plastics Engineers, Inc.
Prerequisite for Advanced Plastics courses.
Offered in the Evening only.

PLS 02 — Plastics Technology (SC 82)  (30 hrs)  10 meetings  0 cr
The basics of the processing techniques. Describing and explaining techniques, mechanics, equipment and materials for: Extrusion, Molding, Laminating, Calendering, Forming, Finishing, Casting, Compounding, Assembly and Fabricating, employment opportunities, etc. Offered jointly by Bronx Community College and the New York Section of the Society of Plastics Engineers, Inc.
Prereq: PLS 01
Offered in the Evening only.

PLS 03 — Advanced Plastics Technology (SC 83)  (30 hrs)  10 meetings  0 cr
Methods and design of products, machinery, tools, dies, equipment; evaluation and estimating of materials; processes and products; advanced techniques and materials. Offered jointly by Bronx Community College and the New York Section of the Society of Plastics Engineers, Inc.
Prereq: PLS 02
Offered in the Evening only.

PLS 11 — Fundamentals of Plastics (TP 1)  2 rec  2 cr
The materials, processes, and general product types which make up the operations of the plastics industry and its manufacturing techniques; history and development of materials, processes and products.

PLS 12 — Plastic Materials (TP 2)  2 rec  3 lab  3 cr
Processing raw material to produce plastics. Emphasis on organic chemistry of plastics, blending and compounding, use of roll mills, mixers, ribbon blenders, physical measurements.
Prereq: PLS 11
PLS 31 — Plastic Processing I (TP 3)  2 rec  4 lab  3 cr
Processing of thermosetting plastics: compression molding, transfer molding, finishing and fabricating techniques.

PLS 32 — Plastic Processing II (TP 4)  2 rec  4 lab  3 cr
Processing of thermoplastics, injection equipment, injection auxiliary equipment, finishing injection molded parts, extrusion equipment, extrusion processes, finishing techniques, blow molding, vacuum forming.
Prereq: PLS 31

PLS 35 — Design of Plastic Products I (TP 5)  2 rec  2 cr
Determination of desirable properties for product selection of material to fit desired attributes. Design and materials for end usage.

PLS 36 — Design of Plastics Products II (TP 6)  2 rec  2 cr
The economic factors of raw materials, virgin vs. reprocessed resins, recovery and scrap factors.
Prereq: PLS 35

PLS 37 — Fabrication I (TP 7)  2 rec  4 lab  3 cr
The extrusion of thermoplastic resins. Compounding, coloring, film manufacturing, profile and pipe manufacturing, blow molding.

PLS 38 — Fabrication II (TP 8)  2 rec  4 lab  3 cr
Injection molding, compression molding and thermoforming.
Prereq: PLS 37

PLS 41 — Reinforced Plastics (TP 9)  2 rec  3 lab  3 cr
Layup (Hand and Mechanical), casting, the formulating and coloring of resins, types and materials for reinforcing, tool design for reinforced plastics.

DEPARTMENT OF ENGINEERING TECHNOLOGIES
Associate Professor: Mr. Tyson, Head of Department; Miss Lawrence, Mr. McLaughlin, Mr. Seid, Mr. Rodzianko; Assistant Professor: Mr. F. Berger, Mrs. P. Berger, Mr. Gean, Mr. Ritterman, Mr. Segel; Instructor: Mr. Alesso, Mr. Weiman;
College Science Technician: Mr. Lopuchin, Mr. Uschinowski.

ELECTRICAL TECHNOLOGY
ELC 01 — Basic Electricity and Electronics (TER 1)  3 rec  3 lab  0 cr
(For Evening and Continuing Education students only.)
An introduction to basic principles of electricity and electronics, to provide a background suitable for service work on electronic equipment. Fundamentals of electricity and DC and AC circuits, electric and magnetic fields and an introduction to vacuum tubes, semi-conductor diodes and transistors. Fundamentals of circuit theory. The laboratory work includes experience with industrial caliber measuring and test equipment. Experience is provided in the servicing of radios, television and other electronic equipment.
ELC 11 — Introduction to Electric Circuits (TE 01) 2 rec 3 lab 3 cr
Study of voltage, current, resistance, power and energy in linear DC circuit elements and networks. Introduction to transients, complex waves and waveshaping with linear elements. Study of static electric and magnetic fields and circuits and balanced polyphase distribution systems. The laboratory work includes the use of modern basic test instruments.
Coreq: MTH 17, PHY 21

ELC 15 — Electrical Technology (TE 32) 2 rec 3 lab 3 cr
Study of AC circuits and electrical machinery, with a brief introduction to electronics. Application of electrical principles to the measurement, control and operation of mechanical systems is stressed. Laboratory work consists of the testing of simple circuits and machinery.
Prereq: ELC 11
Coreq: MTH 18
For Mechanical Technology students only.

ELC 21 — AC Circuits (TE 1) 3 rec 3 lab 4 cr
Study of voltage, current, impedance, power and energy in linear AC circuit elements and networks. These basic concepts are then applied to network theorems, series resonance, and parallel resonance.
Prereq: PHY 21, ELC 11
Coreq: MTH 18

ELC 25 — Transistor and Vacuum Tube Electronics (TE 3) 3 rec 3 lab 4 cr
Study of diodes, transistors and vacuum tubes as physical devices and circuit elements. Rectification, filtering and amplification are examined in detail. Emphasis is placed on transistors. The work in the laboratory includes experiments in diode and triode characteristics (vacuum tube and semiconductors).
Prereq: ELC 11

ELC 31 — Networks and Transmission Lines (TE 2) 3 rec 3 lab 4 cr
The use of lumped circuit elements in coupled circuits and filters to obtain specified current and voltage characteristics with variation of frequency. These concepts are then extended to distributed parameters in transmission lines.
Prereq: MTH 18, ELC 21
Coreq: ELC 25
ELC 35 — Communications Electronics (TE 4) 3 rec 3 lab 4 cr
This course, a continuation of ELC 25, deals with more complex functions of vacuum tubes and transistors. Amplification is re-examined in more detail and a variety of amplifier circuits is considered from several standpoints, such as class of operation, frequency range and response, coupling methods and feedback conditions. Modulation, detection and heterodyning are considered in detail and with applications in radio broadcasting and high fidelity techniques.
Prereq: ELC 25
Coreq: ELC 31

ELC 38 — Electric Product Design and Measurements (TE 7) 1 lec 4 lab 2 cr
Study and practice in the layout, construction and assembly of electrical and electronic equipment and the selection of the appropriate instrument for the measurement of its electrical characteristic. Problems considered include those of spatial economy, serviceability, shielding, and heat dissipation. The techniques studied include miniaturization, modular construction and printed circuits, soldering techniques, as well as conventional procedures. The laboratory work consists of the layout, fabrication, inspection and test of some simple electrical and electronic measuring instruments similar to that found in industrial shops. Some of the laboratory projects include: circuit tracing, assembling of various electronic kits, building electronic gear, including the construction of sheet metal chassis and winding the necessary coil for it, wiring and soldering techniques and the fabricating of printed circuits.
Prereq: MEC 24
Coreq: ELC 21

ELC 41 — Electric Machines and Power (TE 5) 3 lect 3 lab 4 cr
This course is designed to present the fundamental theoretical foundation as well as a survey of current industrial practices in the field of electrical power generation, transmission and distribution. It includes the study of DC and AC machine construction, operating characteristics and maintenance procedures. This is followed by a consideration of transmission and distribution systems—underground and overhead cables, transformers, protective and auxiliary equipment, such as circuit breakers, motor controls, starting boxes and loads. Three-phase systems, power measurements and servos constitute the third major part of the course.
Prereq: ELC 21
ELC 45 — Electronics Project Laboratory (TE 8) 3 lab 1 cr
Application of electrical and electronic theory to the solution of practical laboratory problems. Students work as members of teams or in some cases alone under the personal direction of the instructor, who acts as the project engineer. Projects include design of circuits, fabrication and testing of breadboards and prototypes, the submission of tests, data and reports. Good work habits and a scientific point of view are emphasized equally with techniques and technical performance.
Prereq: ELC 31, ELC 38
Coreq: ELC 35, ELC 64

ELC 47 — Electrical Engineering Technology Problems (TE 9) 4 lab 1 cr
A survey course covering most of the areas of Electrical Technology. Students are required to review the pertinent theory and quantitative relationships and then solve blocks of specific problems designed to reflect typical and current industrial practices. The broad areas covered are electric circuits, semi-conductor and vacuum tube electronics, measurements, electric power and machines. In addition, each student is required to complete an extensive individual design problem from a set of performance specifications to an actual circuit, involving a synthesis of the above areas. Laboratory facilities are provided for students who wish to test their solutions and designs.
Prereq: ELC 35
Coreq: ELC 41, ELC 64

The following courses, numbered in the 60's, [except ELC 64] are elective courses. The selection is made by the senior class as a whole from the group of courses offered by the Department. An individual student may be enrolled in an elective that is not his first choice.

ELC 61 — Electric Power Systems (TE 21) 3 rec 3 lab 4 cr
Continuation of Electric Machines and Power (ELC 41). Study of selection and design procedures for typical machinery and transformers. Power factor correction by static and synchronous condensers, selection procedures for starting, protection and control equipment. Laboratory work includes performance tests of machinery using industrial procedures, design, construction and test of a single phase motor and simulation of power line servicing using specialized test equipment.
Coreq: ELC 41
ELC 62 — Electric Layout and Estimating (TE 22)  3 rec  3 lab  4 cr
A study of the procedures used in the design and layout of electrical lighting and power distribution systems. Code requirements, good practice and engineering economics. Selection and layout of lighting fixtures to provide suitable illumination. The laboratory work consists of the solution of selected design problems and visits to typical installations.
Coreq: ELC 41

ELC 63 — TV and Radar (TE 23)  3 rec  3 lab  4 cr
The basic principles of typical television and radar systems. Generation, transmission, reception and display equipment of conventional types. The laboratory work consists of the testing and trouble-shooting of monochrome and color television and a small radar installation.
Coreq: ELC 64

ELC 64 — Pulse and Digital Circuits (TE 24)  3 lect  3 lab  4 cr
Typical circuits used in the generation and control of non-sinusoidal waveshapes and their application to timing, telemetering, cathode ray displays; television and computers; limiters. DC restorers, differentiators, integrators, multivibrators and blocking oscillators are some of the circuits studied in this course. Laboratory work involves investigation of the operating characteristics of typical pulse circuits and the use of specialized instrumentation employed in pulse techniques.
Prereq: ELC 31, ELC 35

ELC 65 — Computers (TE 25)  3 lect  3 lab  4 cr
The basic concepts and circuits of electronic computers, both digital and analogue. Emphasis is placed on the circuitry and logical design and not on programming. Topics covered include: electrical analogues, Boolean algebra, wave shaping circuits, electronic counters, operational amplifiers, basic logical circuits, input-output devices, storage systems and sample computer systems. Laboratory work consists of computer circuit design, assembly and test and elementary computer programming.
Coreq: ELC 64

ELC 66 — Servo Systems (TE 26)  3 rec  3 lab  4 cr
Simple feedback control systems utilizing electrical, mechanical and hydraulic elements. Theory of operation and characteristics of typical components. Stability and performance criteria are applied to simple servo systems. Modern industrial electrical, mechanical and hydraulic servo components are utilized.
Prereq: ELC 31, ELC 35
ELC 67 — Semi-Conductors and Circuits (TE 27) 3 rec 3 lab 4 cr
Semiconductor physics and its applications to diodes, transistors and lasers. Semiconductor circuits including amplifiers, oscillators, switching and computer circuits. Other semiconductor devices such as field effect and unijunction transistors, tunnel diodes, parametric amplifiers, and lasers. The laboratory work consists of the design, assembly and test of semiconductor circuits, including audio, radio control and computer applications.
Prereq: ELC 31, ELC 35

ELC 68 — FM and Microwaves (TE 28) 3 rec 3 lab 4 cr
Frequency and phase modulation theory and circuits. Transmission line theory and its application to microwaves. Coaxial lines, waveguides, cavity resonators, magnetrons, klystrons, travelling wave tubes, filters, stubs and antennas. Laboratory work includes the test of FM and microwave circuits.
Prereq: ELC 31, ELC 35

ELC 69 — Electronic Manufacturing Techniques (TE 29) 3 rec 3 lab 4 cr
The latest techniques in the manufacturing of electric components and assemblies. Printed circuits, modules, automatic insertion, components board layout and miniaturization. The laboratory work consists of the applications of modern electronic manufacturing techniques to simple problems. Visits to manufacturing installations.
Prereq: ELC 38

ELC 92 — Advanced Electronics Seminar (TE 41) 2 rec 2 cr
Lectures and discussion of applications of electronics to modern systems, including analog and digital computers, radar, transmission lines, antennas and feedback control systems. Emphasis is geared toward the interests and background of the group.
For 4th Semester students, by permission of Department Head.

MECHANICAL TECHNOLOGY

MEC 01 — Introduction to Engineering Graphics (TM 01) 1 lec 4 lab 0 cr
An introductory course in engineering graphics for students with limited backgrounds and those admitted under a pretechnical program. This course is similar in content to MEC 11 (Engineering Graphics). MEC 01 topics include use of instruments, lettering, applied geometry, orthographic projection, sections and conventions, dimensioning, charts and graphs, and detail drawing. Emphasis is placed on individual instruction and individual needs.
MEC 09 — Elementary Problem Solving (TM 09)  
An orientation course designed to train the student in effective work habits to insure successful performance in technology courses to follow. Instruction covers the proper use of technical aids in engineering technology and problem solving techniques. The course includes instruction in the use of the slide rule, scientific notation, engineering units, dimensional analysis and organization of technical problems.

MEC 11 — Engineering Graphics 1 (TM 1)  
Provides a knowledge of, and practice in, the fundamentals of engineering drawing and standard practice used in industrial drafting rooms. Topics covered are lettering, use of instruments, applied geometry, orthographic projection, auxiliary views, sections and conventions, pictorials, threads and fasteners, dimensioning (including limit dimensioning), electrical drawings and detail drawing.

MEC 12 — Engineering Graphics 2 (TM 2)  
Introduction to drawing practices in specific fields. Familiarization with selected specialties such as gears, cams, piping, welding, structural and architectural drawing. Included also is a small design problem with working drawings.  
Prereq: MEC 11

MEC 15 — Mechanical Technology 1 (TM 32)  
Survey of the field of mechanical technology including statics, strength of materials, machine design, thermodynamics and heat transfer, and industrial management. Emphasis is placed on topics of special interest to Electrical Technology students; small mechanisms, electrical heating and production control. The laboratory work includes the operation and test of selected industrial equipment and materials in the strength of materials, precision measurements, and heat power laboratories, including motion and time study.  
Prereq: MTH 18, PHY 21  
For Electrical Technology students only.

MEC 21 — Engineering Manufacturing Processes (TM 3)  
A study of basic engineering processes and unit production measurements. The basic techniques used in the fabrication and assembly of mechanical products in small quantities. Processes included are casting, forging, welding, drilling, lathe work, milling, woodworking, forming of plastics and sheet metal, and heat treating. Laboratory work includes practice with hand and machine tools involved in metal working, woodworking, heat treating, sand casting, welding, etc.
MEC 25 — Production Processes and Measurement (TM 4)  
1 lect 4 lab 2 cr
Study of industrial mass production and measuring techniques, including quantitative and qualitative aspects. Relations between design of product and anticipated method of fabrication. Precision layout, measuring and gauging procedures. The laboratory work includes practice with hand and machine tools and precision measuring equipment of industrial caliber. Projects include fabrication of jigs, fixtures, simple blanking dies, etc.
Prereq: MEC 21
Coreq: MTH 18

MEC 27 — Mechanics and Strength of Materials 1 (TM 6.1)  
4 rec 4 cr

MEC 28 — Mechanics and Strength of Materials 2 (TM 6.8)  
3 rec 3 lab 4 cr
An integrated course covering the application of the principles of statics, dynamics and strength of materials. Study of the relationships between externally applied forces and internally induced stresses in various types of structural members. Analysis and solution of practical problems. The laboratory work consists of destructive and non-destructive tests of materials using industrial equipment and A.S.T.M. standard procedures.
Prereq: for MEC 27: PHY 21
Coreq. for MEC 27: MTH 18
Prereq. for MEC 28: MEC 27

MEC 31 — Machine Design (TM 11)  
3 rec 3 cr
Application of the principles of kinematics, mechanics and strength of materials in the analysis of typical machine members. Consideration of machine kinematics, basic mechanisms and power transmission. Topics covered include theories of failure, linkage mechanisms, cams, shafting, power screws, gears and gear trains.
Coreq: MEC 28

MEC 33 — Thermodynamics, Fluid Dynamics, and Heat Transfer (TM 12)  
3 rec 3 lab 4 cr
A study of the basic concepts of energy and energy interchanges. The steam generator, internal combustion engine, refrigerator, turbine, hot water heater and home insulation are some of the topics discussed. The laboratory work includes the testing of systems operated on thermodynamic principles, such as a gasoline engine, air conditioner, and steam turbine.
Prereq: MTH 18, PHY 22, CHM 15
MEC 35 — Manufacturing Control, Automation and Instrumentation (TM 14)  
3 rec 3 lab 4 cr
A survey of the activities and their relationships in the manufacturing plant, with emphasis on the basic concepts of production control systems, time and motion study, plant layout, inventory control, methods, and materials handling systems. Introduction to automation and instrumentation. The laboratory work includes the analysis and solution of simple problems in the above categories.
Prereq: MEC 12, MEC 21

MEC 41 — Metallurgy and Engineering Materials (TM 15)  
1 lect 1 rec 3 lab 2 cr
This course covers physical metallurgy, properties of ferrous and non-ferrous metals, as well as non-metallic materials and plastics. Laboratory work includes preparation of samples, metallographic examination of metals, and tests for various properties of non-metallic materials.
Prereq: MEC 21, MEC 27, CHM 15

MEC 45 — Mechanical Project Laboratory (TM 16)  
3 lab 1 cr
Application of mechanical engineering theory to the solution of practical laboratory problems. Students work in groups or in some cases work alone under the direction of the instructor, who acts as the project engineer. Projects include the design, fabrication and testing of prototype mechanical or electro-mechanical equipment used in the laboratory. Submission of test data and reports.
Prereq: MEC 31, MEC 35
Coreq: MEC 25, ELC 15

MEC 51 — Descriptive Geometry (TM 7)  
1 lect 4 lab 2 cr
This course develops the projective imagination and structural visualization of the student. The solution by graphical methods of problems concerned with the relations of points, lines, planes and surfaces, intersection and developments are studied. Practical applications of these methods are demonstrated.
Prereq: MEC 12
For Engineering Science students only.
The following courses, numbered in the 60's are elective courses. The selection is made by the senior class as a whole from the group of courses offered by the Department. An individual student may be enrolled in an elective that is not his first choice.

MEC 61 — Advanced Machine Design (TM 21)  

3 rec  3 lab  4 cr  

A continuation and elaboration of MEC 31 (Machine Design) with emphasis on synthesis. The designer's responsibility and the use of judgment in non-critical applications is considered. Topics covered include stress concentration, bearing and lubrication, cams, springs, couplings and clutches, brakes, belt and rope drives, and vibration in machines. The laboratory work consists of several complete design projects of comprehensive caliber. The results are presented in assembly and detail drawings.

Prereq: MEC 31

MEC 62 — Tool Design (TM 22)  

3 rec  3 lab  4 cr  

Principles and factors useful for selecting and designing the most suitable tools. Subjects included are drill jigs, milling fixtures, gages, special cutting tools and dies for blanking, drawing, piercing and bending. Various tools and dies are discussed and demonstrated. The laboratory work consists of problem solving and the design of various tools listed above.

Prereq: MEC 31, MEC 35

MEC 63 — Refrigeration and Air Conditioning (TM 23)  

3 rec  3 lab  4 cr  

This course covers both the theory and practice of refrigeration and air conditioning. The vapor-compression system is covered in detail. Heating and year-round air-conditioning systems are covered qualitatively. Psychrometrics and design loads are covered. Laboratory work includes the use of psychrometric measurements and the design and construction of a vapor-compression cooling unit.

Prereq: MEC 33

MEC 64 — Heating and Ventilating (TM 24)  

3 rec  3 lab  4 cr  

The problems of heating air, water and other fluids, gases and solids. A study of the commercially used design and estimating procedures in the selection and installation of domestic and industrial heaters and ventilators. The laboratory work includes fuel and fuel gas analysis, tests of steam generators, hot water heaters, blowers, ducts and insulation. Industrial caliber chemical and electronic fuel gas analyzers, air flow meters and devices for temperature measurement and recording are used.

Prereq: MEC 33
MEC 65 — Industrial Management (TM 25) 3 rec 3 lab 4 cr
A study of the overall operation of typical industrial manufacturing and processing plants. The organization and inter-relationships of the various units, with emphasis on the levels at which the community college graduate will probably function. Foremanship, production job sheets, inventory control and purchasing. The laboratory work includes the establishment and the simulated operation of simple management and production systems.
Prereq: MEC 35

MEC 66 — Industrial Plant Planning (TM 26) 3 rec 3 lab 4 cr
The application of the principles of production planning and industrial management to the design and layout of manufacturing processes and plants. The economical choice of equipment for fabricating and material handling. Location and mode of operation. The relationship of a plant to its neighborhood and transportation facilities. The laboratory work involves the design and layout of several small manufacturing plants.
Prereq: MEC 35

MEC 67 — Instrumentation and Control Systems (TM 27) 3 rec 3 lab 4 cr
A study of instruments used to sense, measure and control automatic or semi-automatic processes. Scope includes temperature, pressure, level, flow, analyses, and process instrumentation and control systems. Included also is a brief introduction to the principles of servo systems and transducer selection. Laboratory work includes industrial control system investigations and the selection, operation and maintenance of mechanical, electrical and electronic meters, recorders, instruments and control systems.
Prereq: MEC 33
Coreq: MEC 35

ORT 14 — Engineering Technology Freshman Orientation (TFO) 1 lect 0 cr
This is an orientation program to familiarize new students with effective college work-study habits, technical problem-solving methods, and the work of technicians and engineers. The topics covered include: use of the library, engineering problem-solving formats, slide rule operation, preparing for and taking examinations, and the branches of engineering and engineering technology.
A special program to acquaint senior Engineering Science transfer students with detailed fields of specialization in engineering, colleges offering various engineering programs, and the methods of making a successful transition from the community college to the four-year college. Topics discussed include specialized fields of engineering, approved college engineering curricula, selecting a college, making application, and financial aid. Individual problems are discussed.

DEPARTMENT OF ENGLISH

Professor: Dr. Beringause, Head of Department; Dr. Loughlin, Dr. Pollin; Associate Professor: Dr. Mandelbaum; Assistant Professor: Dr. Berger, Dr. Gottesman, Mr. Motola; Instructor: Mr. DeMetro, Mr. Frank, Mr. Grill, Mr. Lebowitz, Mr. Lowenthal, Mr. Olf, Mrs. Read, Mr. Schwartz, Mr. Spielberger, Mr. Zalkin, Mr. Zimmermann.

ENG 01 — Writing Laboratory (GE 01) 4 lab/rec 0 cr
To review and to practice basic principles of grammar, style, and usage, so that the student reaches college level in written composition.

ENG 02 — Reading Laboratory (GE 02) 4 lab/rec 0 cr
To improve the reading skills of students, so that they reach college level. Much practice will be offered in various types of reading material in the different disciplines. When necessary, writing of compositions will be required.

ENG 11 — Composition 1: Writing and the Use of Language Through Literature (GE 1) 4 rec 3 cr
To acquaint the student with good expository writing and to help the student write acceptable American English. These goals will be fulfilled in two ways: by writing-workshop in the application of composition fundamentals, and by careful reading of selected essays and short stories. Individual conferences on corrected papers are an important part of the course.
ENG 12 — Composition 2: Writing and the Use of Language Through Literature (GE 2)  
4 rec 3 cr
To continue student development in written composition and to make the student aware of the various forms and types of literature. The major reading of the course is poetry, with selected plays and novels included. The student will be required to write a research paper. Individual conferences on corrected papers are an important part of the course.
Prereq: ENG 11

The following two courses should be taken in sequence by Liberal Arts and Sciences students. Exceptions may be made with the permission of the Head of the English Department.

ENG 24 — Great Writers of English Literature 1 (GE 5.1)  
3 rec 3 cr
To read works of important authors of English literature from the author of Beowulf to Pope, including Chaucer, Shakespeare, Donne, and Milton. This reading and survey course seeks to give the student a working understanding of the major authors of each period, of various types of literature, and of the important relationship between literature and human history. The student will write one critical or research paper. There will be individual conferences.
Prereq: ENG 12

ENG 25 — Great Writers of English Literature 2 (GE 6.1)  
3 rec 3 cr
To continue the reading and survey of important English literary figures, from Wordsworth to the present day. Authors included are Romantic poets, major Victorians, Georgians and such modern writers as Shaw, Yeats, Joyce, Eliot, Conrad, Lawrence, Woolf, Forster and Dylan Thomas. There will be a critical or research paper and individual conferences.
Prereq: ENG 24

The following courses are electives and will be given in either the spring or fall term. The time will be announced before registration.

ENG 31 — Modern Drama (GE 7)  
3 rec 3 cr
To introduce the student to modern drama, from Ibsen to the present day, and to show that Modern American plays are strongly influenced by both world drama and theater. Although the emphasis of the course will be on such American playwrights as O'Neill, Hellman, Anderson, Odets, Wilder, Miller, and Williams, such European playwrights as
Chekhov, Strindberg, Pirandelo, Ionesco, and Genet will also be included. The student will see a current dramatic production. There will be individual conferences.
Prereq: ENG 12

ENG 33 — Modern American Short Story (GE 8) 3 rec 3 cr
To trace the origin and the development of the American short story, with special emphasis on current trends. The student will be expected to develop critical skill in reading and in evaluating the short story. A critical or research paper will be required and students will be encouraged to write a short story. There will be individual conferences.
Prereq: ENG 12

ENG 41 — Modern British and American Poetry (GE 9) 3 rec 3 cr
To introduce the student to basic poetic principles and techniques by reading, analyzing, and discussing selected modern poetry. Literary appreciation and critical judgment will be developed by a study of the historic and linguistic background necessary for understanding poetry. A critical or research paper will be required and the student will be encouraged to write poetry. There will be conferences.
Prereq: ENG 12

ENG 45 — The Novel (GE 10) 3 rec 3 cr
To give the student an appreciation of the classics of world fiction—their themes, techniques, terminology, origin, and growth—as seen against the background of contemporary achievement. There will be individual conferences and a critical or research paper.
Prereq: ENG 12

ENG 51 — American Literature and Thought (GE 12) 3 rec 3 cr
To acquaint the student with major themes in American literature, thought, and history, from the middle of the Nineteenth Century to the present day. Selected authors include Hawthorne, Melville, Whitman, James, Twain, Eliot, and Hemingway. There will be individual conferences and a critical paper.
Prereq: ENG 12
(To be given as a parallel course with ENG 41, with classes frequently conducted concurrently.)

ENG 55 — Literary Criticism (Honors Course) (GE 18) 3 rec 3 cr
To read philosophies and examples of literary criticism, so that the student can define and apply basic concepts necessary in criticism of literature. The course will consist of readings in ancient and modern criticism—from Aristotle's "Poetics" to Trilling's "The Opposing Self"—and the theories analyzed by such writers as Wellek and Hyman. The student will evaluate a work of literature as a model analysis. Seminar discussions and individual conferences.
An introduction to the plays of Shakespeare. Representative tragedies, comedies, and histories will be read and analyzed. Poetic and dramatic techniques will be studied with some attention to the Elizabethan theatre. A research or critical paper will be required. Individual conferences will be arranged.

Prereq: ENG 11, 12, and 24

To involve the intellectually aware, creative student in the study in depth of some phase of English studies through independent research, is the purpose of this course. The honors student will engage in independent study of a special and specific literary problem. In order to undertake this course, the student must have a B or higher average in his previous nine credits of English courses taken at Bronx Community College. He must have, also, the recommendation of an instructor in the Department of English who is well acquainted with his written work. Each student will work closely and intensively with his instructor; he will be guided in research techniques, in organizing bibliography in the specific area, and in preparing drafts of his honors paper.

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

Professor: Mr. McGrath, Head of Department; Associate Professor: Mr. Steuerman; Assistant Professor: Mr. Kor, Mr. Wong; Instructor: Miss Gold, Miss Honda, Mrs. Lewis, Mrs. Linder, Mr. Wenzel, Mr. Whelan.

1. An annual medical examination is required.

2. All, except Business Curricula and Nursing Curriculum students, must take HLT 91, regardless of health or physical limitations.

3. Students unable to participate in any activity course for medical reasons, must get a waiver from the head of the Health and Physical Education Department each semester.

HLT 11 — Introduction to Physical Education (Men and Women) (GH 1)

Physical fitness testing and evaluation. Orientation to sports program (Men and Women) and dance (women only). Required for all students.
HLT 21 — Fundamentals of Swimming (Men and Women) (GH 3) 2 pool 1/2 cr
Only open to non-swimmers.
Prereq: HLT 11

HLT 22 — Intermediate Swimming (Men and Women) 2 pool 1/2 cr
Instruction in basic survival swimming techniques; emphasis on form and
durability in the following crawl stroke, side stroke, breast stroke and
elementary back stroke.
Prereq: HLT 11 and qualifying examination

HLT 23 — Senior Life Saving and Water Safety (Men and Women) (GH 2) 2 pool 1/2 cr
American Red Cross Life-Saving Certification.
Prereq: HLT 11 (GH 1) and ability to swim 200 yards employing the
four basic strokes

HLT 24 — Synchronized Swimming 2 pool 1/2 cr
Instruction to develop basic techniques of synchronized swimming; will
include modified swimming strokes, fundamental sculling movement,
basic stunts and figures, basic pattern formations, understanding and
appreciation of music and musical accompaniment leading to the for-
mation of a musical routine.
Prereq: HLT 11 and at least intermediate swimmer and pass qualifying
examination

HLT 31 — Seasonal Sports (Men and Women) (GH 5) 2 gym 1/2 cr
Fall: Basketball, badminton and volleyball.
Prereq: HLT 11

HLT 32 — Seasonal Sports (Men and Women) (GH 6) 2 gym 1/2 cr
Spring: Tennis and Golf.
Prereq: HLT 11

HLT 41 — Techniques of Dance (Women) (GH 4) 2 gym 1/2 cr
Folk, square, social and modern. Leotard required.
Prereq: HLT 11

HLT 45 — Dance, Skills, and Sports Activities (Coeducational) (GH 7) 2 gym 1/2 cr
Skills and techniques in dance (folk, square and social), volleyball, re-
bound, tumbling (trampoline), and bowling.
Prereq: HLT 11

HLT 81 — Fundamentals of Wrestling and Heavy Apparatus (Men) (GH 8) 2 gym 1/2 cr
Advanced skills and techniques in wrestling and apparatus.
Prereq: HLT 11
HLT 91 — Personal and Community Health (Coeducational) (GH 9)  
2 rec 1 cr
A study of problems in personal hygiene and community health to develop proper habits that promote healthful living.

DEPARTMENT OF MATHEMATICS

Associate Professor: Mr. Just, Head of Department; Mr. Furst, Dr. Schaumberger;  
Assistant Professor: Mr. Finnegam, Mr. Gore, Mr. Handel, Mrs. Jick, Mr. Penner;  
Instructor: Mr. Bennett, Mr. Chiswick, Miss Glier, Mr. Kabak, Mrs. Soriano, Mr. Trent.

MTH 01 — Elementary Algebra (SM 01)  
3 rec 0 cr
Signed numbers, formulas and graphs, polynomials, equations with two unknowns, factoring, algebraic fractions, radicals, quadratic equations, indirect measurement.

MTH 08 — Fundamental Concepts and Skills in Arithmetic and Algebra (SM 03)  
3 rec 0 cr
A study of basic operations in arithmetic, verbal problems, generalizations of the principles of arithmetic leading to the fundamental concepts of algebra, algebraic operations, polynomials; exponents and logarithms, problems involving algebraic solutions. (Primarily for students who have never studied Intermediate Algebra and who require a refresher course in basic computational mathematics.)

MTH 02 — Plane Geometry for College Students (SM 05)  
3 rec 0 cr
A study of parallels, polygons, circles, loci, ratio and proportion, similarity, areas, constructions, applications.  
Prereq: Elementary Algebra or MTH 01

MTH 03 — Intermediate Algebra (SM 02)  
3 rec 0 cr
Equations and graphs; verbal problems; factoring; fractions; linear functions and their graphs; variation; exponents; logarithms simple trigonometric functions; quadratic functions and their graphs; systems of equations; progressions and binomial expansion.  
Prereq: Plane Geometry or MTH 02

MTH 04 — Trigonometry (SMH 1)  
3 rec 0 cr
Review of operations; linear and quadratic equations, exponents, radicals, logarithms, progressions; binomial theorem, trigonometric functions; trigonometric equations and identities; solution of right and oblique triangles; applications.  
Prereq: Intermediate Algebra or MTH 03
### RECOMMENDED COURSE SEQUENCES IN MATHEMATICS

To assist you in the selection of your courses in Mathematics, find your Professional or Vocational Objective (left column); look under your high school preparation (A, B, or C).

#### Student's PROFESSIONAL or VOCATIONAL OBJECTIVE:

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#### HIGH SCHOOL PREPARATION

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<td>½ or 1 yr. Int. Alg.</td>
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<td>½ yr. Trig.</td>
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#### Key to Footnotes:

- Several additional factors may be considered in determining student preparation. These include class grades, Regents scores, and results of diagnostic examinations.
- This course may be taken only with permission of the Mathematics Department.
- Students who might desire to continue to study mathematics should take the sequence MTH 31, 32.
- High School preparation includes only Elementary Algebra.
- High school preparation includes only Elementary Algebra. This course is designed for Nursing students who need remedial work in arithmetic and algebra.
MTH 11 — Introductory College Mathematics (SMB 1) 3 rec 3 cr
Review of fundamental operations with integers and fractions; equations; introduction to trigonometry; exponents; direct and inverse variation; quadratic equations; sets, functions, graphs, logarithms, statistics.

MTH 13 — Survey of Mathematics 1 (SML 1) 3 rec 3 cr
Intended for Liberal Arts students who are not majoring in science or mathematics. Stresses fundamental concepts; discusses applications of mathematics; arithmetic and algebra developed from a postulational point of view, set theory, permutations, combinations, binomial theorem, probability.
Prereq: MTH 04 or Trigonometry

MTH 14 — Survey of Mathematics 2 (SML 2) 3 rec 3 cr
Analytical geometry, trigonometry, functions, limits, introduction to differential and integral calculus, applications.
Prereq: MTH 13

MTH 17 — College Algebra (SMT 10) 4 rec 3 cr
Review of trigonometry; logarithms; complex numbers; functions and graphs; quadratic equations and systems of equations; theory of equations; permutations, combinations and probability; mathematical induction; matrices and determinants.
Prereq: Trigonometry or MTH 04

MTH 18 — Introduction to Mathematical Analysis (SMT 2) 3 rec 3 cr
Function concept; conic sections; limit concept; differentiation of algebraic functions; differentials, definite integral; anti-derivatives; indefinite integral; limits; differentiation and integration of transcendental functions; applications.
Prereq: Advanced Algebra or MTH 17

MTH 31 — Analytic Geometry and Calculus (SM 11) 4 rec 4 cr
Mathematical induction; elements of set theory; the straight line; limits; rates of change applied to slope and rectilinear motion; differentiation and anti-differentiation of algebraic functions; applications. For Engineering Science students or for Liberal Arts and Sciences students planning to major in mathematics or physical science.
Prereq: Advanced Algebra or MTH 17
MTH 32 — Analytic Geometry and Calculus 2 (SM 12)  5 rec  5 cr
Conic sections; determinants; differentiation and integration of transcendental functions; hyperbolic functions; applications of the definite integral.
Prereq: MTH 31

MTH 33 — Analytic Geometry and Calculus 3 (SM 13)  5 rec  5 cr
Polar coordinates, vectors, applications of vectors to analytic geometry and calculus; partial differentiation; multiple integrals; infinite series; applications.
Prereq: MTH 32

MTH 34 — Advanced Mathematics for Engineers (SM 14)  4 rec  4 cr
Methods of solving ordinary differential equations with and without constant coefficients; selected topics from among the following: hyperbolic functions; power series; Fourier series; gamma functions; Bessel functions; applications to problems of motion; electric circuits; chemical solutions and damped and forced vibrations; Cauchy-Schwarz inequality, Laplace transform.
Prereq: MTH 33

MTH 35 — Vector Calculus and Linear Algebra (SM 24)  4 rec  4 cr
A study of determinants, matrices, vector spaces, complex vector spaces, eigenvalue problems, uniform convergence, Fourier series, functions defined by integrals, vector field theory, the theorems of Green and Stokes.
Prereq. or Coreq: MTH 34 and permission of Head of Department of Mathematics.

MTH 41 — Probability and Statistics (SM 15)  3 rec  3 cr
Introduction to probability, organization and presentation of data, frequency distribution, mean and standard deviation, variance, normal distribution.
(Designed for Liberal Arts students who expect to major in Education or the Social Sciences.)
Prereq: MTH 13, MTH 14
DEPARTMENT OF MODERN LANGUAGES

Professor: Dr. Monticone, Head of Department, Dr. Sztacho; Associate Professor: Dr. McCulloch; Assistant Professor: Mr. Armas, Dr. Bernand, Mr. Sweeney, Mr. Lalli, Dr. Winterfeldt; Instructor: Miss Bidot, Miss Glynn, Mr. Gourin, Mr. Lessard, Mr. Wilkofsky.

FRENCH

FRN 11 — Elementary French 1 (GF 01)  
4 rec  4 cr  
Pronunciation; elements of grammar; reading and translation of simple texts; dictation; conversation. Audio-laboratory practice.

FRN 12 — Elementary French 2 (GF 02)  
4 rec  4 cr  
Continuation of FRN 11.  
Prereq: FRN 11

FRN 13 — Intermediate French (GF 03)  
4 rec  4 cr  
Review of grammar; reading; translation and oral discussion of modern texts; composition; dictation; conversation. Audio-laboratory practice.  
Prereq: FRN 12

FRN 21 — College French 1 (GF 1)  
4 rec  4 cr  
Review of grammar; conversation, oral reports, composition and analysis based on reading and interpretation of literary masterpieces. Audio-laboratory practice.  
Prereq: FRN 13

FRN 22 — College French 2 (GF 2)  
4 rec  4 cr  
Readings in Modern French. An introduction to some of the best writers of France since the Renaissance. Intensive work in composition and conversation, analysis and interpretation of literary masterpieces.  
Prereq: FRN 21

FRN 23 — College French 3 (GF 3)  
3 rec  3 cr  
The course begins with a survey of the Renaissance. Selected plays of Corneille, Racine, Moliere, and works of other representative authors of the 17th and 18th centuries are read, discussed and studied critically.  
Prereq: FRN 22

FRN 24 — College French 4 (GF 4)  
3 rec  3 cr  
Reading, oral discussion, reports, literary analysis of works of representative French authors from the Romantic period to the present.  
Prereq: FRN 23, or FRN 22 with permission of the department
### MODERN LANGUAGES: COURSE SELECTION CHART

<table>
<thead>
<tr>
<th>High School Admission Units or Equivalent</th>
<th>Student Elects to:</th>
<th>Student Must Complete</th>
<th>Degree Credit Basis</th>
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<tbody>
<tr>
<td>(a) 4 years 1 language</td>
<td>Start new lang. II</td>
<td>College 21</td>
<td>Credit 11 through College 21</td>
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<tr>
<td>(b) 4 years 1 language</td>
<td>Cont. H.S. lang.</td>
<td>College 22 *</td>
<td>No credit for 11-13 if required by Placement Examination Exemption from Coll. 21 on placement at option of student*</td>
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<tr>
<td>(c) 3 years 1 language</td>
<td>Start new lang. II</td>
<td>College 21</td>
<td>Credit 11 through College 21</td>
</tr>
<tr>
<td>(d) 3 years 1 language</td>
<td>Cont. H.S. lang.</td>
<td>College 22</td>
<td>No credit for 11-13 if required by Placement Examination</td>
</tr>
<tr>
<td>(e) 2 years 1 language</td>
<td>Start new lang. II</td>
<td>College 21</td>
<td>No credit for 11—condition fulfilled</td>
</tr>
<tr>
<td>(f) 2 years 1 language</td>
<td>Cont. H.S. lang.</td>
<td>College 22</td>
<td>No credit for 11-12 if required by Placement Examination No credit for 13—condition fulfilled</td>
</tr>
<tr>
<td>(g) 2 years 2 languages</td>
<td>Start new lang. II</td>
<td>College 21</td>
<td>Credit 11 through College 21</td>
</tr>
<tr>
<td>(h) 2 years 2 languages</td>
<td>Cont. a H.S. lang.</td>
<td>College 22</td>
<td>No credit for 11-12 if required by Placement Examination</td>
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<tr>
<td>(i) 3 years 1 language and 2 years 1 language</td>
<td>Cont. 3 yrs. H.S. lang.</td>
<td>College 22</td>
<td>No credit for 11-13 if required by Placement Examination</td>
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<td></td>
<td>Cont. 2 yrs. H.S. lang.</td>
<td>College 22</td>
<td>No credit for 11-12 if required by Placement Examination</td>
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*Students who have completed 4 years of one language and elect or are required by Placement Examination to take Coll. 21 are cautioned that although B.C.C. grants degree credit for Coll. 21 under such circumstances, another college to which a student ultimately transfers may not grant degree credit and may require additional language study. Such students are advised to complete Coll. 25 as part of their elective credits at B.C.C.*
GERMAN

GER 11 — Elementary German 1 (GG 01)  
4 rec  4 cr  
Pronunciation; elements of grammar; reading and translation of simple  
texts; dictation; conversation. Audio-laboratory practice.

GER 12 — Elementary German 2 (GG 02)  
4 rec  4 cr  
Continuation of GER 11.  
Prereq: GER 11

GER 13 — Intermediate German (GG 03)  
4 rec  4 cr  
Review of grammar; reading; translation and oral discussion of modern  
texts; composition; dictation; conversation. Audio-laboratory practice.  
Prereq: GER 12

GER 21 — College German 1 (GG 1)  
4 rec  4 cr  
Review of grammar; reading, discussion, literary analysis, oral reports  
and composition based on a text treating the historical development of  
the German people and its literary movements as well as giving simpli-  
fied excerpts from works by German 18th century authors. Audio-  
laboratory practice.  
Prereq: GER 13

GER 22 — College German 2 (GG 2)  
4 rec  4 cr  
Continuation of GER 21. Reading, oral discussion in German, literary  
analysis and composition based on texts containing excerpts of authors  
of the two Golden Ages of German literature: the Middle High Ger-  
man period (Volkspos, Hôfisches, Epos and Minnesang), and authors  
such as Klopstock, Wieland, Lessing, Goethe and Schiller.  
Prereq: GER 21

GER 23 — College German 3 (GG 3)  
3 rec  3 cr  
18th Century German literature; reading, translation, literary analysis,  
discussions and compositions based on the writings of various 18th  
century authors, with special emphasis on Lessing’s "Nathan der Weise,"  
Goethe’s "Faust" (Part I), and Schiller’s "Don Carlos."  
Prereq: GER 22

GER 24 — College German 4 (GG 4)  
3 rec  3 cr  
Reading, translation, oral discussion and analysis of selections from  
19th century German literature. Works of authors such as Heinrich von  
Kleist, Heinrich Heine, Franz Grillparzer, Adalbert Stifter, Friedrich  
Hebbel and Theodor Storm will be covered.  
Prereq: GER 23
RUSSIAN

RUS 11 — Elementary Russian (GR 01) 4 rec 4 cr
Pronunciation; elements of grammar; reading and translation of simple texts; dictation; simple conversation. Audio-laboratory practice.

RUS 12 — Elementary Russian 2 (GR 02) 4 rec 4 cr
Continuation of RUS 11.
Prereq: RUS 11

RUS 13 — Intermediate Russian (GR 03) 4 rec 4 cr
Review of grammar; reading; translation and oral discussion of modern texts; composition; dictation; conversation. Audio-laboratory practice.
Prereq: RUS 12

RUS 21 — College Russian 1 (GR 1) 4 rec 4 cr
Review of grammar; conversation; oral reports, composition and analysis based on reading and interpretation of literary masterpieces. Audio-laboratory practice.
Prereq: RUS 13

SPANISH

SPN 11 — Elementary Spanish 1 (GSP 01) 4 rec 4 cr
Pronunciation; elements of grammar; reading and translation of simple texts; dictation, conversation. Audio-laboratory practice.

SPN 12 — Elementary Spanish 2 (GSP 02) 4 rec 4 cr
Continuation of SPN 11.
Prereq: SPN 11

SPN 13 — Intermediate Spanish (GSP 03) 4 rec 4 cr
Review of grammar, reading, translation and oral discussion of modern texts; composition; dictation and conversation based on everyday and cultural topics. Audio-laboratory practice.
Prereq: SPN 12

SPN 21 — College Spanish 1 (GSP 1) 4 rec 4 cr
Review of grammar; conversation, oral reports, discussions and composition based on textual material. Emphasis on cultural and historic background of Latin America. Audio-laboratory practice.
Prereq: SPN 13

SPN 22 — College Spanish 2 (GSP 2) 4 rec 4 cr
Continuation of SPN 21 with emphasis on culture and literature of Spain.
Prereq: SPN 21
<table>
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<th>Course Code</th>
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<td>SPN 23</td>
<td>College Spanish 3 (GSP 3)</td>
<td>3 rec</td>
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<td>Nineteenth century Spanish literature; reading; oral discussion and reports; literary analysis of selections from representative Spanish authors. Don Juan Tenorio will be read.</td>
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<td>SPN 24</td>
<td>College Spanish 4 (GSP 4)</td>
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<td>Introduction to Cervantes’ Don Quijote: reading; oral discussion; reports and analysis of selections from the original text. One of the Novelas Ejemplares will also be covered.</td>
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<td>Prereq:</td>
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<td>SPN 25</td>
<td>College Spanish 5 (GSP 5)</td>
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<td>Literary analysis of selections from the principal writers of the Generation of '98: reading; discussion; oral and written reports. Outside readings will also be assigned and discussed in class.</td>
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<td>Prereq:</td>
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**ITALIAN**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITL 11</td>
<td>Elementary Italian 1</td>
<td>4 rec</td>
<td>4 cr</td>
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<tr>
<td></td>
<td>Pronunciation; elements of grammar; reading and translation of simple texts; dictation; conversation. Audio-laboratory practice.</td>
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<td></td>
<td>Continuation of ITL 11.</td>
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<td>Prereq:</td>
<td>ITL 11</td>
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<tr>
<td>ITL 12</td>
<td>Elementary Italian 2</td>
<td>4 rec</td>
<td>4 cr</td>
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<tr>
<td></td>
<td>Review of grammar; reading; translation and oral discussion of modern texts; composition; dictation; conversation. Audio-laboratory practice.</td>
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<td>Prereq:</td>
<td>ITL 11</td>
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<tr>
<td>ITL 13</td>
<td>Intermediate Italian</td>
<td>4 rec</td>
<td>4 cr</td>
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<td></td>
<td>Review of grammar; reading; translation and oral discussion of modern texts; composition; dictation; conversation. Audio-laboratory practice.</td>
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<td>Prereq:</td>
<td>ITL 12</td>
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<tr>
<td>ITL 21</td>
<td>College Italian 1</td>
<td>4 rec</td>
<td>4 cr</td>
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<tr>
<td></td>
<td>Review of grammar; conversation, oral reports, composition and analysis based on reading and interpretation of literary masterpieces. Audio-laboratory practice.</td>
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<tr>
<td>Prereq:</td>
<td>ITL 13</td>
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<tr>
<td>ITL 22</td>
<td>College Italian 2</td>
<td>4 rec</td>
<td>4 cr</td>
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<td></td>
<td>Readings in Modern Italian. An introduction to the writers of the Romantic period in Italy with emphasis on Foscolo, Manzoni and Leopardi. Intensive work in composition and conversation, literary analysis and interpretation.</td>
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<td>Prereq: ITL 21</td>
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<tr>
<td>ITL 23</td>
<td>College Italian 3</td>
<td>3 rec</td>
<td>3 cr</td>
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<td></td>
<td>Introduction to Dante’s “Divina Commedia.” Reading, oral discussion and reports; literary analysis of selected passages from the &quot;Inferno,&quot; &quot;Purgatorio&quot; and &quot;Paradiso.&quot;</td>
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<tr>
<td>Prereq:</td>
<td>ITL 22</td>
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DEPARTMENT OF NURSING

Professor: Dr. Perlmutter, Head of Department; Associate Professor: Miss Ehrhart; Assistant Professor: Miss Cavello, Miss Gardiner, Miss Gotta, Miss Levey, Miss Lofstedt, Miss Pitman, Miss Tarney; Instructor: Mrs. Clinton, Miss Coogan, Mrs. Darby, Mrs. Emerman, Mrs. Fullar, Miss Glacey, Miss Glickfeld, Mrs. Horowitz, Mrs. Jackson, Mrs. Katz, Mrs. Kelly, Mrs. Leveron, Mrs. Lenefsky, Miss Lombardi, Mrs. Margolis, Mrs. Martin, Miss May, Mrs. Mullings, Mrs. Patterson, Mrs. Rotando, Mrs. Sabith, Mrs. Sclafani, Miss Scanlon, Mrs. Schlachter, Mrs. Sorge, Miss Tarpey, Miss Verdejo, Miss Wallack; Lecturer: Mrs. Ceslowitz, Mrs. D. Frank, Mrs. K. Frank, Mrs. Ma, Miss Weiss.

NUR 11 — Nursing Technology 1 (TN 1) 2 lect 2 lab 4 clin 5 cr
Study of the fundamental nursing needs of patients. Clinical laboratory experience provided in general hospitals.

NUR 12 — Nursing Technology 2 (TN2) 2 rec 4 lect 12 clin 10 cr
Study of the nursing care of patients with physical health problems. Clinical laboratory experience provided in general hospitals.
Prereq: NUR 11, BIO 21

NUR 13 — Nursing Technology 3 (TN 3) 2 rec 4 lect 12 clin 10 cr
Study of growth and development of individuals and families. Clinical laboratory provides experience with the early developmental and reproductive phases of the life cycle.
Prereq: NUR 12, BIO 28

NUR 14 — Nursing Technology 4 (TN 4) 2 rec 4 lect 12 clin 10 cr
Study of the nursing care of patients with long-term physical and emotional illnesses. Clinical laboratory experience is provided in general and psychiatric hospitals.
Prereq: NUR 13

*Courses in Nursing are open only to full-time matriculants in the Nursing Curriculum.

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PHY 01 — Introduction to College Physics (SPT 01) 4 rec 0 cr
Nature of physics, units mathematics and physics, velocity, acceleration, kinematics, vectors and centripetal motion. Newton's Laws of Motion, momentum, conservation laws.

PHY 11 — College Physics I (SPL 1) 3 rec 2 lab 4 cr
Introduction to basic principles and methods of physics. Topics include mechanics, heat and molecular forces, vibrations, wave motion and sound.
Prereq: Algebra and the Elements of Trigonometry or MTH 17

PHY 12 — College Physics 2 (SPL 2) 3 rec 2 lab 4 cr
Electricity and magnetism, light, selected topics in modern atomic and nuclear physics.
Prereq: PHY 11

PHY 21 — Physics for Engineering Technology I (SPT 1) 1 lect 2 lab 2 rec 4 cr
Statics, kinematics, dynamics, work and power, circular motion, simple harmonic motion.
Prereq: Trigonometry or MTH 04
Coreq: MTH 17

PHY 22 — Physics for Engineering Technology 2 (SPT 2) 1 lect 2 lab 1 rec 3 cr
Fluid mechanics, heat, heat transfer, mechanics of gases, thermodynamics, optics, applied nuclear technology.
Prereq: PHY 21, MTH 17

PHY 31 — Physics I (SP 11) 1 lect 2 rec 2 lab 4 cr
The statics and dynamics of particles and rigid bodies; vectors, force and motion; energy and momentum; rotational motion; elasticity and simple harmonic motion. PHY 31 is the first of a three-semester sequence in general physics for students in the Engineering Science program. This sequence of courses, PHY 31, PHY 32 and PHY 33, is also recommended for science or mathematics majors in a Liberal Arts and Sciences Transfer program.
Coreq: MTH 31
PHY 32 — Physics 2 (SP 12)  
Hydrostetrics and hydrodynamics; properties of gases; heat; thermodynamics and kinetic theory of matter; wave motion, sound; electrostatics. PHY 32 is the second semester of the general physics three-semester sequence for engineering science, physical science or mathematics majors.
Prereq: PHY 31  
Coreq: MTH 32

PHY 33 — Physics 3 (SP 13)  
Magnetism and electromagnetism; direct and alternating currents; electromagnetic waves; geometrical and physical optics; modern physics. PHY 33 is the third semester of the three-semester sequence in general physics for engineering science, physical science, or mathematics majors.
Prereq: PHY 32  
Coreq: MTH 33

PHY 34 — Analytical Mechanics (SP 14)  
The principles of mechanics and the development of logical procedures of analysis in problem solving. Statics and kinematics of rigid bodies, dynamics of particles and rigid bodies, and mechanical vibrations.
Prereq: PHY 32  
Coreq: PHY 33, MTH 33

PHY 41 — Electricity and Magnetism (SP 16)  
Electrostatics and magnetostatics, Maxwell’s equations; a study of the basic principles of stationary and moving electric and magnetic fields and their effect on charged particles. (Recommended for students planning to major in electrical engineering or physics.)
Prereq: PHY 33, MTH 33

PHY 51 — Atomic and Nuclear Physics (SP 23)  
The deflection of charged particles by electric and magnetic fields, special relativity. Bohr model of the atom, quantum numbers, radioactive decay schemes, detection and measurement of radiation, radiation effect and protection, uses of radioisotopes. (Recommended for students planning to major in mechanical engineering, civil engineering, architecture or physics.)
Prereq: PHY 33
PHY 61 — Computer Methods and Programming for Applied Scientific Purposes (SP 24) 1 lec 2 rec 2 lab 2 cr
Techniques of analysis and programming required to utilize a stored program digital computer for solution of some typical problems in engineering science, physics, and mathematics.

PHY 71 — Astronomy and Space Science (SP 25) 1 lec 2 rec 3 cr
An elementary study of the solar system, stellar populations, structure of the universe, and other aspects of modern astronomy.
Prereq: 1 semester of Physics, or SCI 11 or the permission of the department.

PHY 81 — Radiation Physics 1 2 lect 2 lab 3 cr
Physical reality, units of measurements, vectors, elements of Newtonian mechanics, energy, temperature — macroscopic and microscopic, heat, electric charges and fields, potentials and currents, x-ray tube, electromagnetism, coils and transformers, generators and motors, rectification, basic x-ray circuits, betatron wave motion, electromagnetic waves as carriers of energy, EM wave absorption and scattering, EM wave detection (photography, counters, calorimeters), elements of geometrical optics.

PHY 82 — Radiation Physics 2 3 lect 2 lab 4 cr
Survey of wave properties of light (propagation, interference, diffraction). Corpuscular aspect of electromagnetic waves, photo effect, Rutherford’s and Bohr’s atom, optical and x-ray spectra, ionization, Compton effect, pair production, x-ray absorption and scattering, shielding, the photographic process, fluorescence and phosphorescence, filters, atomic nucleus, elementary particles, natural isotopes, radioisotopes and their production, radioactivity and types of radiation, radioactive families, radiation characteristics, radiation detectors, radiography, nuclear energy.
Prereq: PHY 81

PRINCIPLES OF SCIENCE *
An interdepartmental offering, in cooperation with the Departments of Biology, Chemistry, and Physics, administered in the Department of Chemistry.

SCI 11 — Principles of Science I (SS 1) 1 rec 2 lec 2 lab 4 cr
Beginnings of science and planetary motion, the laws of motion, gravitation, energy and heat, matter and its chemical nature, electricity and magnetism, light, structure of the atom.

* Students expecting to transfer to a senior college of City University should consult their curriculum advisors before registering for these courses.
SCI 12 — Principles of Science 2 (SS 2)  
Introduction, chemical calculations, electronic structure of atoms, ionic and covalent compounds, solutions, acids and bases, equilibrium, oxidation-reduction, nonmetals, metallic state, organic chemistry, minerals and rocks, geological processes, astrophysics.  
Prereq: SCI 11

SCI 14 — Introduction to Science (SS 3)  
Matter, atomic structure, chemical bonds, radioactivity, liquid state and solutions, ionization, acids and bases, hydrocarbons and derivatives, carbohydrates, lipids and proteins, metabolism, respiration, blood and urine, hormones, motion, energy, heat, pressure.  
Required of Nursing students.  
Prereq: BIO 21, BIO 28

DEPARTMENT OF SOCIAL STUDIES

Professor: Dr. Hirsch, Head of Department; Associate Professor: Dr. Robbins; 
Assistant Professor: Dr. Cheng, Dr. Cesais, Mr. Colwell, Mr. Doroshkin, Mr. Ehrenpreis, Dr. Galub, Mr. Sokolsky, Dr. Stembler, Dr. Twersky, Dr. Wahlin, Dr. Wieczerzak; Instructor: Mr. Bindler, Mr. Bonelli, Mr. Cooper, Mr. Eisenberg, Mr. Felix, Dr. Lenkevich, Mrs. Moehs, Mr. Wolk.

The Social Studies Department includes the disciplines of History, Government, Economics, Philosophy, Psychology, and Sociology. Courses are listed under these disciplines, and in the order stated above.

HISTORY

HIS 11 — History of Western Civilization 1 (GS 1)  
Study of Western civilization from earliest times to 1715 A.D., with special emphasis on political, social and economic development from the Greeks through the Age of Absolutism.

HIS 12 — History of Western Civilization 2 (GS 2)  
Outstanding political, intellectual, philosophical and economic trends, movements and events from the Age of Reason to modern times in Western civilization.  
Prereq: HIS 11
HIS 21 — American History 1 (1492-1865) (GS 8) 3 rec 3 cr
An account of our nation's history from European beginnings and ear-
liest colonial times through the Civil War, with special attention to in-
institutions and politics. Recent historical interpretations and exami-
nation of historical origins of current problems.
Prereq: HIS 11, 12 or
Coreq: HIS 12 and permission of instructor.

HIS 22 — American History 2 (1865 to present) (GS 9) 3 rec 3 cr
American history since the Civil War, with special attention to intellec-
tual developments. Analysis and examination of reconstruction, political
developments, issues such as the tariff, silver, agriculture, and federal
regulation and the Progressive Era. American involvement in both
world wars and resolution of the clash between isolation and world
participation. Our struggle against totalitarianism, activity in the
United Nations, and relations with Latin America also noted.
Prereq: HIS 11, 12 or
Coreq: HIS 12 and permission of instructor.

HIS 25 — History of Modern Imperialism and Colonialism (GS 10) 3 rec 3 cr
A survey of the world scene since 1870, especially in the building of
colonial empires in Africa, Asia and Latin America; the rivalries among
the imperialist powers; the relationship of imperialism to World Wars
I and II; the decline of colonialism and the rise of Soviet and Commu-
nist Chinese imperialism.
Prereq: HIS 11, 12 or
Coreq: HIS 12 and permission of instructor.

HIS 27 — Modern History of the Far East (GS 11) 3 rec 3 cr
China, Japan and Korea in the modern period; political and cultural
institutions; structure of oriental societies; advances of the West and
the effect of imperialism; industrialism, agrarian reforms; Communism;
problems of the post-World War II period.
Prereq: HIS 11, 12 or
Coreq: HIS 12 and permission of instructor.

HIS 31 — Modern Latin American History (GS 14) 3 rec 3 cr
This course traces the historical development of the Latin American
area through the nineteenth and twentieth centuries, and examines the
forces and factors that make it so significant and possibly decisive in
the current political situation.
Prereq: HIS 11, 12 or
Coreq: HIS 12 and permission of instructor.
HIS 41 - History of the Bronx (GS 18) 3 rec 3 cr
A detailed survey of the natural and cultural environment and the history of the area, over a 3000 year period. Included will be a comprehensive survey of relationships of geology, geography, i.e., soils, minerals, relief features, water resources, flora, fauna, and how they combine to produce the various physical settings in which man has lived, and lives today, in Bronx County. The historical role, significance, and relationships of the Bronx to New York City as a whole, to the Metropolitan Region, and to the State as well, will receive special attention.
Prereq: HIS 11, 12
(Open to matriculated students. Non-matriculated students must have permission of Head of Department.)

GOVERNMENT

GOV 21 - Government (GS 3) 3 rec 3 cr
Analysis of the American political system with emphasis on its national aspects and some attention to New York State and City government. Topics include the Constitution and its origins, the federal system, political behavior, Congress, the Presidency, the judiciary, and civil liberties and civil rights.
Prereq: HIS 12

GOV 31 - Comparative Government (GS 13) 3 rec 3 cr
A description and analysis of the governments and politics of some of the leading world powers, with particular attention to Great Britain, France and the Soviet Union.
Prereq: HIS 11, 12, GOV 21

ECONOMICS

ECO 21 - Economics (GS 4) 3 rec 3 cr
Study and analysis of economic principles and policies; the theory of pricing and distribution under various market conditions. Government intervention in the market and policy problems. Analysis of the factors determining the aggregate levels of employment, prices and income.
Prereq: HIS 12

PHILOSOPHY

PHL 21 - Introduction to Philosophy (GS 7) 3 rec 3 cr
The fundamental questions of human experience and the basic problems of philosophy. Study and analysis of concepts and views of ancient and modern philosophies.
Prereq: HIS 11, 12
PHL 31 — Philosophy, Science and Human Values (GS 12)  3 rec  3 cr
An examination of the philosophical problems involved in the relationship of science to human conduct. Fundamental questions of science and society are approached through a systematic and historical analysis of the philosophical problems of science and an examination of specific issues in the social sciences, philosophy, and social policy.
Prereq: HIS 11, 12

PSYCHOLOGY

PSY 21 — Psychology (GS 5)  3 rec  3 cr
The scientific method in the understanding of human behavior. An introductory study of growth and development, motivation, emotions and mental health, learning, intelligence and personality evaluation.
Prereq: HIS 11, 12 or
Coreq: HIS 12 and permission of instructor

PSY 31 — Abnormal Psychology (GS 15)  3 rec  3 cr
A study of the major forms of psychological disorders; such as neuroses, psychoses, psychosomatic disturbances and character disorders; their origin, development and treatment.
Prereq: PSY 21

SOCIOLOGY

SOC 21 — Sociology (GS 6)  3 rec  3 cr
Introduction to the scientific study of human life as group life. Culture and personality; courtship, marriage and the family; religious behavior; education and communication; the theories of social stratification and social change.
Prereq: HIS 12

SOC 31 — Minorities in American Society (GS 16)  3 rec  3 cr
The characteristics of American ethnic minorities and religious groups are examined. Theories explaining prejudice and discrimination are considered. Intergroup relations, with particular reference to the New York metropolitan area, and techniques for relieving and eliminating problems in this field of human relations are studied.
Prereq: HIS 11, 12, and SOC 21

SOC 35 — Introduction to Social Work (GS 17)  3 rec  3 cr
The course is organized to introduce the student to the field of social work. The student is acquainted with the nature of social work and its functions. The fields of social work, such as family case-work, child welfare, psychiatric and medical social work, correctional services, public welfare and community welfare organizations are discussed on an introductory level.
Prereq: SOC 21 or PSY 21 or permission of instructor.
DEPARTMENT OF SPEECH, AND THE FINE AND PERFORMING ARTS

SPEECH
Associate Professor: Dr. Reynolds, Head of Department; Mr. Duncan; Assistant Professor: Mr. Gelb, Mrs. Stergiopoulos; Instructor: Mr. Canty, Mr. Connolly, Mr. Diel, Mr. Gilroy, Mrs. Lande, Mr. Raphael.

FINE AND PERFORMING ARTS
Associate Professor: Dr. Heinz, Dr. Salzberg; Assistant Professor: Mr. Simon; Instructor: Mrs. Bass, Mr. Hamell.

SPEECH

SPH 10 — Speech Clinic (GSD 00) 2 rec 1/2 cr
Remedial, clinical work, carried on largely in the freshman year, in individual consultation for those students who have particularly severe speech problems. Students may be continued in SPH 10 while taking required Speech courses.
(Open only to students assigned on the basis of the Speech Placement Test or a diagnostic interview.)

SPH 01 — Speech Clinic (GSD 03) 1 rec 0 cr
Remedial, clinical non-credit work carried on largely in the freshman year, in individual consultation or in carefully selected small groups. In some cases, students may be continued in SPH 01 while taking prescribed courses.
(Open only to students assigned on the basis of the Speech Placement Test or a diagnostic interview.)

SPH 11 — Speech Fundamentals (GSD 3) 3 rec 2 cr
Development of effective oral communication skills. Preparation and presentation of original speech to entertain and inform. Voice production and elementary phonetics. Individual conferences.

SPH 12 — Advanced Speech (GSD 4) 3 rec 2 cr
Composition and delivery of documented speeches to persuade and convince; group discussions on topics of current lasting interest; instruction and practice in parliamentary procedure and debate. Semantics and propaganda analysis. Individual conferences.
Prereq: SPH 11

SPH 21 — Voice and Diction (GSD 13) 2 rec 1 cr
Intensive speech diagnosis, corrective and developmental exercises, and the systematic study of effective oral communication for future teachers, lawyers, actors, etc. Individual conferences.
Offered in the Spring Semester.
SPH 25 — Argumentation and Debate (GSD 15)  
Principles and practices of argumentation and debate, including the nature of persuasion, stating and analyzing propositions, identifying issues, collecting materials, making briefs, preparing the case, evidence and reasoning, refutation, style and delivery. Individual conferences.  
Offered in the Fall Semester.  
Prereq: SPH 11

SPH 31 — Oral Interpretation of Literature (GSD 16)  
A speech arts course in the methods and techniques of oral delivery of appropriate literary selections (prose, poetry and drama). Individual conferences.  
Offered in the Fall Semester.  
Prereq: SPH 11

SPH 35 — Parliamentary Procedure and Practice (GSD 17)  
A practical course in the efficient use of parliamentary procedure as a democratic instrument for group deliberations.  
Offered in the Spring Semester.

SPH 41 — Introduction to Play Production (GSD 14)  
This course is designed to give the student a practical introduction to the production of both long and short plays. The scope of the course is broad, including elements of acting, directing, stage managing, lighting, sets, costume and make-up, with primary emphasis on directing and stage managing. There will be finished dramatic productions each semester in which all students in the course will be expected to participate. In addition to the class hours, there will be other rehearsal hours by arrangement.  
Prereq: Permission of the instructor

SPH 42 — Advanced Play Production  
A continuation of SPH 41.  
Prereq: Permission of the instructor

SPH 51 — Acting 1 (GSD 20)  
An introduction to the basic acting problems of analyzing and creating a role. Improvisations, scene practice, script analysis.  
Prereq: Permission of the instructor

SPH 52 — Acting 2 (GSD 21)  
Rehearsal, study, and performance techniques. Problems of auditioning.  
Prereq: Permission of the instructor.
ART

ART 11 — Art Appreciation (GA 1) 2 rec 1 cr
The study of aesthetics and the exploration of various art media; philosophical, social and personal influences of the artists and their works. Important characteristics and styles of each historical period. Discussion of art masterpieces, visits to museums, and opportunities for creative student experiences.

ART 12 — Introduction to Drawing and Painting (GA 2) 4 rec 2 cr
The elements of drawing and painting in various media. Emphasis on the development of individual skill and creativity. Preparation for more advanced and varied work in the art field. Visits to art museums and exhibitions.
Coreq: Art 11 or special permission of the instructor.

ART 31 — Graphic Design (GA 3) 4 rec 2 cr
Application of drawing and painting techniques in the creation of effective graphic design including layout and rendering in different media for advertising. Emphasis on calligraphy.
Coreq: Art 11 or special permission of the instructor.

MUSIC

MUS 11 — Music Appreciation (GM 1) 2 rec 1 cr
Nature of music expression; elements of music, including tempo, meter, rhythm, melodic and harmonic material and structure, tone color, texture, structure examined in instrumental and vocal "forms." History of development of musical styles and forms. Use of Audio-laboratory.

MUS 15 — Twentieth Century Music (GM 2) 3 rec 3 cr
An exploration into the divergent styles of twentieth century music. Major trends and developments in Europe and the United States will be studied along with the examination of the significant works of outstanding composers of our century. Use of Audio-laboratory.
Prereq: MUS 11 or special permission of the instructor.

MUS 21, 22, 23, 24 — Choral Performance (GM 11, 12) 2 rec 1 cr each sem. (maximum of 2 cr for non-music majors)
The study and presentation of standard and contemporary choral literature for mixed voices. Choral training and performances at concerts, college ceremonies and functions.
MUS 31, 32, 33, 34 — Orchestral Performance 2 rec 1 cr each sem. (maximum of 2 cr for non-music majors)
The study and presentation of standard and contemporary orchestral literature. Orchestral training and performance at concerts, college ceremonies and functions. (The College offers the loan of orchestral instruments for those qualified.)

MUS 41, 42 — Theory 1, 2 3 rec 2 cr
The study of elementary diatonic harmony; to include harmonization of melodies and basses, harmonic progressions, modulations, and counterpoint. Works from the traditional literature will be analyzed to apply the above studies.
(Taken by all music majors)
Prereq: for Theory 2: Theory 1 and a grade of C or higher from New York College of Music in Private Instruction 1.
Registration only with permission of department.

MUS 43, 44 — Theory 3, 4 3 rec 2 cr
The study of advanced diatonic, chromatic and modal harmony; to include harmonization of melodies and basses, harmonic progressions, modulations, and counterpoint. Works for the traditional literature will be analyzed to apply the above studies.
(Taken by all music majors)
Prereq: for Theory 3: Theory 2 and a grade of C or higher from New York College of Music in Private Instruction 2; for Theory 4: Theory 3 and a grade of C or higher from New York College of Music in Private Instruction 3.
Registration only with permission of department.

MUS 51, 52 — Ear Training 1, 2 2 rec 1 cr
The material covered in Theory 1 and 2 will be applied to aural drill, through sight singing and dictation.
(Taken by all music majors)
Prereq: for Ear Training 2: Ear Training 1 and a grade of C or higher from New York College of Music in Private Instruction 1.
Registration only with permission of department.

MUS 53, 54 — Ear Training 3, 4 2 rec 1 cr
The material covered in theory 3 and 4 will be applied to aural drill, through sight singing and dictation.
(Taken by all music majors)
Prereq: for Ear Training 3: Ear Training 2 and a grade of C or higher from New York College of Music in Private Instruction 2; for Ear
Training 4: Ear Training 3 and a grade of C or higher from New York College of Music in Private Instruction 3.
Registration only with permission of department.

**MUS 61, 62 — Keyboard 1, 2**
1 rec 1 cr
The material covered in theory 1 and 2 will be applied to the keyboard.
(Taken by all music majors)
Prereq: for Keyboard 2: Keyboard 1 and a grade of C or higher from New York College of Music in Private Instruction 1.
Registration only with permission of department.

**MUS 63, 64 — Keyboard 3, 4**
1 rec 1 cr
The material covered in theory 3 and 4 will be applied to the keyboard.
(Taken by all music majors)
Prereq: for Keyboard 3: Keyboard 2 and a grade of C or higher from New York College of Music in Private Instruction 2; for Keyboard 4: Keyboard 3 and a grade of C or higher from New York College of Music in Private Instruction 3.
Registration only with permission of department.

**MUS 71, 72 — Secondary Piano 1, 2**
1 rec 1 cr
Class instruction to attain an elementary facility at the piano.
(Taken by all music majors except pianists)
Registration only with permission of department.

**MUS 81 — Ensemble I**
2 rec 1 cr
Study and performance of standard and contemporary chamber music works for a wide variety of instrumental and vocal combinations.
(Taken by all music majors)
Prereq: either Chamber Orchestra 1 and 2, or Chamber Chorus 1 and 2.
Registration only with permission of department.

**MUS 83, 84, 85, 86 — Private Instruction 1, 2, 3, 4**
2 cr
Private instruction in a major instrument, voice, or composition to be taken at the New York College of Music.
Prereq: for Private Instruction 2: a grade of C or higher in Private Instruction 1; Private Instruction 3: a grade of C or higher in Private Instruction 2; Private Instruction 4: a grade of C or higher in Private Instruction 3.
Registration only with permission of department.
MUS 91, 92 — Chamber Orchestra 1, 2
2 rec 1 cr
Study and performance of standard and contemporary chamber orchestral music.
(Taken by all instrumentalists)
Prereq: for Chamber Orchestra 1: permission of instructor; for Chamber Orchestra 2: Chamber Orchestra 1.
Registration only with permission of department.

MUS 95, 96 — Chamber Chorus 1, 2
2 rec 1 cr
Study and performance of standard and contemporary chamber choral music.
(Taken by all vocalists)
Prereq: for Chamber Chorus 1: permission of instructor; for Chamber Chorus 2: Chamber Chorus 1.
Registration only with permission of department.
GOVERNANCE OF THE COLLEGE
GOVERNING BODIES

The Board of Higher Education of the City of New York is the governing body of The City University of New York, including the Bronx Community College. The Board shares with the State University of New York Trustees various responsibilities for the College.

BOARD OF HIGHER EDUCATION of the City of New York

Bronx Community College, administered by the Board of Higher Education, is a unit of The City University of New York. The board of trustees of The City University is the twenty-one member Board of Higher Education appointed by the Mayor for nine-year terms, and one member ex officio, the president of the Board of Education. Board headquarters are at 535 East 80 Street, New York 10021.

***Porter R. Chandler, B.A., M.A., B.C.L., LL.B., LL.D., Chairman
Jack I. Poses, B.C.S., Vice-Chairman
David I. Ashe, B.S.S., LL.B.
**Renato J. Azzeri, M.D., F.A.C.S.
Lloyd H. Beiler, B.A., M.A., Ph.D.
George D. Brown, A.B., M.S.
Frederick H. Burkhardt, A.B., Ph.D., B. Litt.
**John E. Conboy, M.D.
Gladys M. Dormann, B.A., M.A., LL.B.
Lloyd K. Garrison, A.B., LL.B., LL.D.
Mary S. Ingraham, A.B., L.H.D.
Francis H. Keppel, A.B., L.H.D., LL.D, Ped.D.
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Arthur Rosenkrans, D.H.
Henry E. Schultz, LL.B., D.H.
**Ruth S. Shoup, A.B.
Elia S. Streator, A.B.
David Sullivan
Arleigh B. Williamson, B.A., M.A.

* Chairman, BCC Committee
** Member, BCC Committee
*** Ex officio member, BCC Committee
Bronx Community College is a two-year unit of The City University of New York. The City University, created by the New York State Legislature in April, 1961, consists of thirteen publicly-supported institutions of higher education: six senior colleges, one upper-division college and six community colleges. The University offers undergraduate and graduate instruction.

The Administrative Council of The University is composed of the Chancellor, who is chairman of the Council, and the presidents of the constituent colleges.

THE CITY UNIVERSITY OF NEW YORK
Administrative Council

Chancellor: Albert H. Bowker, B.S., Ph.D.

The City College, Founded 1847

Hunter College, Founded 1870
President: Robert Cross, A.B., A.M., Ph.D.

Brooklyn College, Founded 1930
President: Francis P. Kilcoyne, A.B., A.M., Ph.D.

Queens College, Founded 1937
President: Joseph P. McMurray, LL.D., L.H.D.

John Jay College of Criminal Justice, Founded 1964
President: Leonard E. Reisman, B.S.S., LL.B.

Richmond College, Founded 1965
President: Herbert Schueler, B.A., M.S., Ph.D.

York College, Founded 1966
President: Dumont F. Kenny, B.S., Ph.D.

New York City Community College of Applied Arts and Sciences, Founded 1946
President: Milton G. Bassin, B.M.E., M.E., P.E.

Staten Island Community College, Founded 1955
President: Walter L. Willig, M.C.E., P.E.

Bronx Community College, Founded 1957
President: James A. Colston, B.S., M.A., Ph.D., LL.D., L.H.D.

Queensborough Community College, Founded 1958
Dean-in-Charge: John Orth Riedl, A.B., A.M., Ph.D.

Kingsborough Community College, Founded 1963
President: Jacob I. Hartstein, B.A., M.S., M.A., Ph.D.

Borough of Manhattan Community College, Founded 1964
President: Murray H. Block, B.B.A., M.A., Ed.D.
STATE UNIVERSITY OF NEW YORK

Bronx Community College operates under the program of the State University of New York, according to New York State Education Law.

The State University of New York was established by the State Legislature in 1948. It comprises 57 units, four University Centers, two Medical Centers, 24 State colleges (17 four-year and 6 two-year), a Graduate School of Public Affairs, and 28 locally sponsored two-year community colleges. Although separated geographically, all are united in a common purpose to improve and extend opportunities for youth to continue their education beyond high school.

State University offers programs in the liberal arts and sciences; engineering; home economics; industrial and labor relations; veterinary medicine; ceramics; agriculture; forestry, maritime service; teacher education; law; pharmacy; medicine; dentistry; social work; business administration; and public administration. The University's two-year programs also include liberal arts study and a wide variety of technical courses in such areas as agriculture, business, and the industrial and medical technologies.

Advanced graduate study at the doctoral level is offered by the University at 12 of its units, including the University Centers and the Graduate School of Public Affairs. While graduate work can be pursued at 23 of the colleges, the programs at the majority of these units are now limited to the master's level. The University, however, 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 plans for the total development of State-supported higher education. Each college and center of State University is locally administered.

Although State University of New York is one of the largest universities in the country, its students have the additional advantages of attending relatively small colleges.

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

**State University of New York**

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Associate Executive Dean for Two-Year Colleges ........................................ Kenneth T. Doran, B.S., M.S. in Ed., Ed.D.
Secretary of the University ............................................................................................. Martha J. Downey, B.S., M.A.
COLLEGES OF STATE UNIVERSITY OF NEW YORK

University Centers
State University at Albany
State University at Binghamton

State University at Buffalo
State University at Stony Brook

Medical Centers
Downstate Medical Center at Brooklyn (New York City)
Upstate Medical Center at Syracuse

Graduate School
Graduate School of Public Affairs at Albany

Colleges of Arts and Science
College at Brockport
College at Buffalo
College at Cortland
College at Fredonia
College at Geneseo
College at New Paltz
College at Oneonta

College at Oswego
College at Plattsburgh
College at Potsdam

Specialized Colleges
College of Forestry at Syracuse University
Maritime College at Fort Schuyler (New York City)
College of Ceramics at Alfred University
College of Agriculture at Cornell University
College of Home Economics at Cornell University
School of Industrial and Labor Relations at Cornell University
Veterinary College at Cornell University

Two-Year Colleges
Agricultural and Technical Colleges at:
Alfred
Canton
Delhi
Farmingdale
Morrisville

Community Colleges
(Locally-sponsored two-year colleges under the program of State University)
Adirondack Community College at Hudson Falls
Auburn Community College at Auburn
Borough of Manhattan Community College at New York City
Bronx Community College at New York City
Broome Technical Community College at Binghamton
Corning Community College at Corning
Dutchess Community College at Poughkeepsie
Erie County Technical Institute at Buffalo
Fashion Institute of Technology at New York City
Fulton-Montgomery Community College
Hudson Valley Community College at Troy
Jamestown Community College at Jamestown
Jefferson Community College at Watertown
Kingsborough Community College at Brooklyn
Mohawk Valley Community College at Utica
Monroe Community College at Rochester
Nassau Community College at Garden City
New York City Community College of Applied Arts and Sciences at Brooklyn
Niagara County Community College at Niagara Falls
Onondaga Community College at Syracuse
Orange County Community College at Middletown
Queensborough Community College at New York City
Rockland Community College at Suffern
Staten Island Community College at New York City
Suffolk County Community College at Selden
Sullivan County Community College at South Fallsburg
Ulster County Community College at Kingston
Westchester Community College at Valhalla
### BRONX COMMUNITY COLLEGE
OFFICERS OF ADMINISTRATION

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
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<tbody>
<tr>
<td>James A. Colston, Ph.D., LL.D., L.H.D.</td>
<td>President</td>
</tr>
<tr>
<td>Morris Meister, Ph.D., Sc.D</td>
<td>President Emeritus</td>
</tr>
<tr>
<td>Bernard P. Corbman, Ed.D.</td>
<td>Dean of Faculty</td>
</tr>
<tr>
<td>Sidney Silverman, Ed.D.*</td>
<td>Dean of Administration</td>
</tr>
<tr>
<td>Daniel S. McGrath, Jr., M.A.†</td>
<td>Dean of Administration</td>
</tr>
<tr>
<td>Clement M. Thompson, Ph.D.</td>
<td>Dean of Students</td>
</tr>
<tr>
<td>Manuel Stillerman, M.S.E., P.E.</td>
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<tr>
<td></td>
<td>Dean of Evening and Continuing Education</td>
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<tr>
<td>Henry F. White, Ph.D.</td>
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<tr>
<td>Morton Rosenstock, Ph.D.</td>
<td>Associate Dean of Faculty</td>
</tr>
<tr>
<td>Paul Rosenfeld, M.A.</td>
<td>Associate Dean of Administration</td>
</tr>
<tr>
<td>Vera F. Minkin, Ed.D.</td>
<td>Associate Dean of Students</td>
</tr>
<tr>
<td>Peter J. Caffrey, M.A.</td>
<td>Assistant Dean of Evening and Continuing Education</td>
</tr>
<tr>
<td>Herman Stein, M.A.</td>
<td>Assistant Dean of Summer Session</td>
</tr>
<tr>
<td>John E. D’Andrea, M.S. in Ed.</td>
<td>Registrar and Admissions Officer</td>
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<tr>
<td>Joseph E. Berman, B.S.</td>
<td>Fiscal Officer</td>
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<tr>
<td>Beatrice Perlmutter, Ed.D., R.N.</td>
<td>Administrator of Nursing Center</td>
</tr>
<tr>
<td>Helen Kelberman, M.S.</td>
<td>Coordinator of College Discovery Program</td>
</tr>
<tr>
<td>Harvey Erdsneker, B.S. in Ed.</td>
<td>Assistant Registrar</td>
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<tr>
<td>Philip Iannelli, B.A.</td>
<td>Assistant Registrar</td>
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<td>Mildred Kraft, B.A.</td>
<td>Assistant Registrar</td>
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<tr>
<td>Henry Yin, B.A., M.A.</td>
<td>Assistant Registrar</td>
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<tr>
<td>Sharlene Schop, B.A.</td>
<td>Public Information Officer</td>
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<tr>
<td>Max Horn, B.S., M.A.</td>
<td>Assistant to the President</td>
</tr>
<tr>
<td>William Woolfson, M.S. in Ed.</td>
<td>Coordinator of Special College Activities</td>
</tr>
</tbody>
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### FACULTY

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Alesso, Philip F.</td>
<td>Instructor, Engineering Technologies (Mech. Tech.)</td>
</tr>
<tr>
<td>B.M.E., General Motors Institute; M.E., Pennsylvania State University</td>
<td></td>
</tr>
<tr>
<td>Armas, Antonio M.</td>
<td>Assistant Professor, Modern Languages (Spanish)</td>
</tr>
<tr>
<td>B.S., St. Joseph Institute, Comillas, Santander, Spain; M.A., Comillas University, Santander, Spain; M.A., Columbia University</td>
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</tr>
<tr>
<td>Atlas, Sheldon M.</td>
<td>Head of Department; Professor, Chemistry and Chemical Technology</td>
</tr>
<tr>
<td>B.S., M.S., Polytechnic Institute of Brooklyn; Ph.D., New York University</td>
<td></td>
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<tr>
<td>Babnis, Patricia A.</td>
<td>Assistant Professor, Chemistry and Chemical Technology</td>
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<tr>
<td>B.A., M.A., Brooklyn College</td>
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<tr>
<td>Belter, Howard</td>
<td>Instructor, Biology and Medical Laboratory Technology</td>
</tr>
<tr>
<td>B.S., Queens College; M.S., Adelphi University</td>
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<td>Bass, Ruth</td>
<td>Instructor, Speech and the Fine and Performing Arts</td>
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<tr>
<td>B.A., Radcliffe College; M.A., New York University</td>
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<td>Bates, Dennis</td>
<td>Instructor, Biology and Medical Laboratory Technology</td>
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<td>B.S., Iona College; M.S., Fordham University</td>
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* On leave—2/67-1/68
† Acting
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<th>Title/Institution</th>
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<tr>
<td>Baum, Joan H.</td>
<td>Assistant Professor, Library</td>
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<tr>
<td>Bennett, Michael E.</td>
<td>Instructor, Mathematics</td>
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<td>B.S., The City College; M.S., New York University</td>
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<td>Berger, Frederick J</td>
<td>Assistant Professor, Engineering Technologies (Elec. Tech.)</td>
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<td>B.S., B.E.E, The City College; M.E.E, New York University</td>
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<td>B.S.E., M.A., The City College; Ph.D., Yeshiva University</td>
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<tr>
<td>B.E., Cooper Union; M.S.M.E., Stevens Institute of Technology; P.E., State of New York</td>
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<td>Beringause, Arthur F.</td>
<td>Head of Department, Professor, English</td>
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<td>Bernand, Rochelle</td>
<td>Assistant Professor, Modern Languages (French)</td>
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<tr>
<td>B.A., Ecole Superiure De Jeunes Filles; Licence en Droit, Doctorat en Droit, University of Geneva</td>
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<tr>
<td>Bidot, Ines</td>
<td>Instructor, Modern Languages (Spanish)</td>
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<tr>
<td>B.A., Normal School for Teachers (Havana, Cuba); Dr. Ped., University of Havana</td>
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<td>Binder, Norman</td>
<td>Instructor, Social Studies (History)</td>
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<td>Blando, Charlene</td>
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<td>Bonelli, Vincent F.</td>
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<td>Buckley, June</td>
<td>Associate Professor, Chemistry and Chemical Technology</td>
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<td>B.S., University of Rochester; M.A., Hunter College</td>
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<td>Bullard, Dolores</td>
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<td>Caflrey, Peter J.</td>
<td>Assistant Dean of Evening and Continuing Education; Associate Professor, English</td>
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<td>B.A., St. Francis College (Loretto, Pa.); M.A., St. John's University</td>
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<td>Canty, Donald J.</td>
<td>Instructor, Speech and the Fine and Performing Arts (Speech)</td>
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<td>B.A., Adelphi University; M.A., University of Missouri</td>
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<td>Casais, John A.</td>
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<td>B.A., M.A., Ph.D., Columbia University</td>
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<td>Cavallo, Mary G.</td>
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<td>B.S., Nursing, M.A., Adm. in Nursing, New York University</td>
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<td>Caslowitz, Sandra B.</td>
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<td>Chang, Mabel Li</td>
<td>Assistant Professor, Social Studies (Economics)</td>
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<tr>
<td>B.A., National Central University, (Chungking, China); B.A., Manhattanville College of the Sacred Heart; M.A., New York University; Ph.D., New York University</td>
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<td>Chiswick, Stephen J.</td>
<td>Instructor, Mathematics</td>
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<td>Clarke, Robert L.</td>
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<td>Clinton, Myrtle</td>
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<td>Cohen, Aaron</td>
<td>CC Higher Education Officer</td>
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<tr>
<td>B.Arch., B.S., Georgia Institute of Technology; M.Arch., Pratt Institute</td>
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<tr>
<td>Colston, James A.</td>
<td>President of the College, Professor of Education in The University of the City of New York</td>
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<td>B.S., Morehouse College; M.A., Atlanta University; Ph.D., New York University; L.H.D., Westminster College, Fulton, Missouri; LL.D., Morehouse College, Atlanta, Georgia; LL.D., Monmouth College, Monmouth, Illinois</td>
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<td>Colwell, Thomas B., Jr.</td>
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<td>Name</td>
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<td>Connolly, John</td>
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<td>D'Andrea, John E.</td>
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<td>Doroshkin, Milton</td>
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<td>Eckhard, Marie T.</td>
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<td>Ehrenpreis, Samuel D.</td>
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<td>Emerman, Susan Fainberg</td>
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<td>Erdman, Harvey</td>
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<td>Ettinger, Blanche</td>
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<td>Farrell, Roberta</td>
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<td>Ford, Francis</td>
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</table>
Frank, Dolores  Lecturer, Nursing
B.S., M.Ed., Teachers College, Columbia University

Frank, Karen  Lecturer, Nursing
B.S., Adelphi University; M.A., New York University

Frank, Mortimer  Instructor, English
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Fuld, Howard  Instructor, Biology and Medical Laboratory Technology
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Fuller, Alice P.  Instructor, Nursing
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Furst, John M.  Associate Professor, Mathematics
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Gelb, Phillip S.  Assistant Professor, Speech and the Fine and Performing Arts (Speech)
B.A., M.A., University of Minnesota

Gilroy, Nicholas M.  Instructor, Speech, and the Fine and Performing Arts (Speech)
B.A., Stanford University; M.A., New York University

Glaccy, Marilyn  Instructor, Nursing
B.S., M.A., New York University

Glückfeld, Gloria  Instructor, Nursing
B.S., M.A., New York University

Glier, Germana  Instructor, Mathematics
B.A., M.A., Hunter College

Glynn, Helen  Instructor, Modern Language (French)
B.S., Boston State College; M.A., Middlebury Graduate School

Gold, Anne J.  Instructor, Health and Physical Education
B.S., The City College; M.A., Columbia University

Gore, Norman  Assistant Professor, Mathematics
B.A., M.A., New York University

Gorman, Ralph  Instructor, Physics
B.A., Hunter College; M.S., New York University

Gotta, Anne  Assistant Professor, Nursing
B.S., Teachers College, Columbia University; M.A., Columbia University

Gottasman, Lillian  Assistant Professor, English
B.A., Hunter College; M.A., Ph.D., New York University

Gourin, Roger A.  Instructor, Modern Languages (French)
B.A., The Catholic University of America; M.A., Hunter College

Gosselin, J. E. Roland  Instructor, English
A.B., St. Anselm; M.A., Columbia University

Grill, Neil  Instructor, English
B.A., The City College; M.A., New York University

Hamill, John  Instructor, Speech and the Fine and Performing Arts
B.S., M.Ed., Temple University

Handel, Irving  Assistant Professor, Mathematics
B.B.A., M.A., The City College

Harder, Eleanor M.  Assistant Professor, Student Personnel
B.S., M.A., New York University

Harris, Howard  Lecturer, Social Studies
B.A., The City College; M.A., New School for Social Research

Hartmann, Lillian  Instructor, Physics
B.A., Barnard College; M.A., Ph.D., Columbia University

Hayde, John  Instructor, Biology and Medical Laboratory Technology
B.S., Manhattan College; M.S., Fordham University

Heinz, Frank P.  Associate Professor, Speech and the Fine and Performing Arts (Art)
B.A., New York University; M.A., Ed.D., Columbia University
<table>
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<th>Name</th>
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<tr>
<td>Heller, Richard</td>
<td>Instructor, Biology and Medical Laboratory Technology B.A., Hunter College; M.S., New York University</td>
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<td>Hermo, Henry</td>
<td>Instructor, Biology and Medical Laboratory Technology B.S., Fairleigh Dickinson University; M.A., Montclair State College</td>
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<tr>
<td>Hirsch, Mark D.</td>
<td>Head of Department, Professor, Social Studies (History) B.S.S., The City College; M.A., Ph.D., Columbia University</td>
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<td>Hirsh, Irving R.</td>
<td>Instructor, Business and Commerce B.S., M.B.A., New York University</td>
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<td>Hirshfield, Arthur S.</td>
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<td>Honda, Charlotte</td>
<td>Instructor, Health and Physical Education B.S., Ohio State University; M.S., Wayne State University</td>
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<td>Horowitz, Elinor</td>
<td>Instructor, Nursing B.S., M.S., Hunter College</td>
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<td>Huff, Judith</td>
<td>Lecturer, Nursing B.S., University of Maryland; M.A., New York University</td>
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<td>Hynes, William P.</td>
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<td>Iannalli, Philip</td>
<td>Assistant Registrar B.A., Adelphi University</td>
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<td>Jackson, Annie B.</td>
<td>Instructor, Nursing B.S., Hunter College; M.A., Teachers College, Columbia University</td>
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<td>Jaffe, Marvin R.</td>
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<td>Jick, Helen</td>
<td>Assistant Professor, Mathematics B.A., Hunter College; M.A., Columbia University</td>
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<td>Just, Erwin</td>
<td>Head of Department, Associate Professor, Mathematics B.S., M.A., The City College</td>
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<td>Kabak, Bertram</td>
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<td>Kalin, Myron</td>
<td>Instructor, Student Personnel B.A., Long Island University; M.A., Teachers College, Columbia University</td>
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<td>Instructor, Biology and Medical Laboratory Technology B.A., Adelphi College; M.S., Fordham University</td>
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<td>Kelberman, Helen</td>
<td>Coordinator of College Discovery Program B.A., Brooklyn College; M.S., The City College</td>
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<td>Kelly, Nancy C.</td>
<td>Instructor, Nursing B.S., St. John's University (New York); M.S., Hunter College</td>
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<td>Associate Professor, Business and Commerce B.B.A., M.B.A., The City College; C.P.A., State of New York</td>
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<td>Kleiber, William C.</td>
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<td>Klymowycz, Oksana L.</td>
<td>Assistant Professor, Library Ukrainian Free University (Munich, Germany); M.S. in L.S., Columbia University</td>
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<td>Kolliner, Jean S.</td>
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<td>Kor, Richard</td>
<td>Assistant Professor, Health and Physical Education B.S., M.S., New York University; M.A., Hunter College</td>
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<td>Kraft, Mildred</td>
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<td>Krainovich, Thomas</td>
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<td>Krieger, Murray</td>
<td>Assistant Professor, Business and Commerce B.S., M.S., New York University</td>
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<td>Lalli, Paul Joseph</td>
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<td>Instructor, Speech and the Fine</td>
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<td>McGrath, Daniel S. J.</td>
<td>Acting Dean of Administration</td>
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<td>Merrigan, Walter</td>
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<td>Miller, Russell</td>
<td>Instructor, Chemistry and Chemical Technology</td>
<td>B.S., Fordham University; M.S., Cornell University</td>
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<td>Minkin, Vera F.</td>
<td>Associate Dean of Students; Professor</td>
<td>B.A., New York University; M.A., Columbia University; Ed.D., New York University</td>
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<td>Moehs, Teta</td>
<td>Instructor, Social Studies (History)</td>
<td>B.A., Hunter College; M.A., New York University</td>
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<td>Monticone, Charles R.</td>
<td>Head of Department, Professor, Modern Languages</td>
<td>B.A., M.A., Ph.D., University of Pittsburgh</td>
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<td>Motola, Gabriel</td>
<td>Assistant Professor, English</td>
<td>B.A., The City College; M.A., New York University</td>
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<td>Mukherjee, Juan</td>
<td>Assistant Professor, Chemistry</td>
<td>B.S., Hamline University; Ph.D., University of Minnesota</td>
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<td>Mullings, Cynthia D.</td>
<td>Instructor, Nursing</td>
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<td>Lecturer, Social Studies</td>
<td>B.A., Barnard College; M.A., University of Michigan</td>
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<td>Nagel, Jack</td>
<td>Assistant Professor, Business and Commerce</td>
<td>A.A.S., New York City Community College; B.S., M.S., New York University</td>
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<td>Off, Julian M.</td>
<td>Instructor, English</td>
<td>B.A., Union College; M.A., Columbia University</td>
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<td>Passer, Eugene L.</td>
<td>Instructor, Chemistry</td>
<td>B.S., Brooklyn College; M.S., New York University</td>
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<td>Patterson, Joyce</td>
<td>Instructor, Nursing</td>
<td>B.S., M.S., Hunter College</td>
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<td>Pecher, Janet</td>
<td>Instructor, Nursing</td>
<td>B.S., M.A., New York University (Bellevue School of Nursing)</td>
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<td>Penner, Sidney</td>
<td>Assistant Professor, Mathematics</td>
<td>B.S., The City College; M.S., Ph.D., Illinois Institute of Technology</td>
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<td>Parlmutter, Beatrice</td>
<td>Administrator of Nursing Center; Head of Department, Professor, Nursing</td>
<td>B.S., Hunter College; M.A., Ed.D., New York University</td>
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<td>Phillips, Richard</td>
<td>Assistant Professor, Student Personnel</td>
<td>B.A., M.A., University of Michigan</td>
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<td>Pitman, Avis</td>
<td>Assistant Professor, Nursing</td>
<td>B.S., Ohio State University; M.A., New York University</td>
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<td>Assistant Professor, Business and Commerce</td>
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<td>Pollin, Burton R.</td>
<td>Professor, English</td>
<td>B.A., M.S., The City College; Ph.D., Columbia University</td>
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<td>Polowczyk, Carl J.</td>
<td>Assistant Professor, Chemistry and Chemical Technology</td>
<td>B.S., City College; M.S., Ph.D., New York University</td>
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<td>Pomeranz, Kalman B.</td>
<td>Head of Department, Associate Professor, Physics</td>
<td>B.A., M.A., New York University; Polytechnic Institute of Brooklyn</td>
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<td>Prestwidge, Kathleen</td>
<td>Associate Professor, Biology and Medical Laboratory Technology</td>
<td>B.A., Hunter College; M.A., Brooklyn College</td>
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<td>Prince, Jack</td>
<td>Assistant Professor, Physics</td>
<td>B.A., Yeshiva; M.S., Ph.D., New York University</td>
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<td>Rackman, Ruth</td>
<td>Instructor, Student Personnel</td>
<td>B.A., Hunter College; M.A., New York University</td>
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<td>Raphael, Lawrence J.</td>
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<td>Read, Phyllis J.</td>
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<td>Ross, Samuel S.</td>
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<td>Reynolds, Wynn R.</td>
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<td>B.A., Lafayette College; M.A., Ph.D., Columbia University</td>
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Ritterman, Saul A.  Assistant Professor, Engineering Technologies (Elec. Tech.)  
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** On Leave 3/1/67 — 1/31/68

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<td>Dean of Evening and Continuing Educations</td>
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<td>Sweeney, Joseph</td>
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<td>Instructor, Modern Languages (French, Spanish)</td>
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<td>Szeto, Miroslav</td>
<td>B.A., Belgrade University (Yugoslavia); M.A., Columbia University</td>
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<td>B.A., M.A., Brooklyn College; B.S., M.A., Columbia University</td>
<td>Chief Librarian, Associate Professor</td>
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<td>Weiss, Emanuel</td>
<td>B.A., Brooklyn College; M.S., Brooklyn Polytechnic Institute</td>
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Zimmerman, Stephen M. __________________ Instructor, English
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A.A.S., Bronx Community College

Czarnetzki, Ronald __________________ College Science Technician A, Physics
A.A.S., Bronx Community College

Eckberg, Betty __________________ College Science Technician A, Biology and Medical Laboratory Technology
A.A.S., Bronx Community College

Flamholz, Sharon __________________ College Science Technician A, Biology and Medical Laboratory Technology
A.A.S., Bronx Community College

Fruin, William __________________ College Science Technician A, Data Processing
A.B., Hunter College

Hodge, William __________________ College Science Technician A, Chemistry and Chemical Technology
A.A.S., Bronx Community College

Lopuchin, Nikolai __________________ College Science Technician B, Engineering Technologies

Nango, Angel F. __________________ College Science Technician B, Duplicating
A.A.S., Bronx Community College

Perrine, Ronald __________________ College Science Technician A, Business and Commerce

Rose, Robert __________________ College Science Technician B, Physics

Saxton, Eileen __________________ College Science Technician B, Library, Audio Laboratory

Smith, Angelina __________________ College Science Technician B, Biology
A.A.S., Bronx Community College

Uschinowski, John __________________ College Science Technician B, Engineering Technologies

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COMMUNITY RELATIONS
BRONX COMMUNITY COLLEGE AND ITS COMMUNITY

The community of which we are an integral part has a deep interest in our efforts, and we in theirs. In addition to the official relationship through the Board of Higher Education of the City of New York and the State University Board of Trustees, we enjoy the support and counsel of the Bronx Community College Advisory Committee, which includes representatives of community organizations, industry, labor and sister educational institutions. The committee fosters community cooperation, cultural enrichment and the general development of the College. Its activities have benefited students and the College in many areas such as job placement and through scholarship drives.

The Friends of Public Education of the Bronx, the Bronx Chamber of Commerce, the Bronx Board of Trade, the Bronx Council on the Arts, Rotary, Lions, Kiwanis, the Grand Street Boys' Association and the Soroptimist Club have supported the College's need for expanded facilities and scholarships. The College, in its turn, seeks opportunities to participate in and serve the community wherever it can, culturally and educationally, through civic organizations like the Bronx Borough President's Golden Jubilee Committee, the Association of Bronx Community Organizations, and the Bronx Council on the Arts, and through cultural programs like the annual Festival of the Arts, held during Charter Week, the Bronx Community College Lecture Series, the Bronx Community College Lecture Series, and the Faculty Speakers' Bureau.

CULTURAL PROGRAMS

A diversified program of cultural activities is offered as a supplement to the educational program of the college, as well as a service to the residents of the community.

Lectures in the fields of science, humanities and the social sciences have been presented. In addition, musical events have included such different types of entertainment as orchestral concerts, operas, dance groups, jazz concerts and folk singers. Dramatic presentations have been produced by both campus groups and outside drama companies.

Special effort is made in the annual Festival of the Arts held during Charter Week to bring a variety of outstanding artists to the campus. These have included Basil Rathbone, Hal Holbrook, the Norman Walker Dance Company and the Metropolitan Opera Studio.
BRONX COMMUNITY COLLEGE ADVISORY COMMITTEE

Bernard E. Alpern, President, Grand Iron Works, Inc.
George D. Busher, Vice-President, Eugene J. Busher Company, Inc.
Donald Darcy, Senior Vice-President, North Side Savings Bank
George Paskas, Chairman, Alexander's Department Store
Dr. Merle E. Frampton, Principal, New York Institute for the Education of the Blind
Hon. Walter H. Gladwin, Judge, New York City Criminal Court
Abraham Gurevich, President, Security Mutual Liabilities Insurance Company
Judge Ernest E. L. Hammer, New York State Supreme Court Justice (ret.)
Rev. Edler G. Hawkins, St. Augustine's Presbyterian Church
William T. Higgs, President, Higgs Marine Service
Harold Kase, Vice-President, Alto Work Shops, Inc.
George T. Kindermann, Vice-President, Dollar Savings Bank
Hon. Charles A. Loreto, Justice of the Supreme Court
Eugene T. Lynn, Director of Sales Promotion, New York Yankees
Rev. Laurence J. McGinley, S.J., Former President, Fordham University
Nathaniel M. Minkoff, Secretary-Treasurer, Joint Board, Dress and Waistmaker's Union
Hon. Robert M. Morgenthau, United States Attorney, Southern District of New York
William J. O'Leary, Vice-President, Bronx Chamber of Commerce
Rabbi Samuel Penner, Jacob Schiff Center
Mrs. Sadya Reiss, President, Friends of Public Education of the Bronx, Inc.
Richard C. Sachs, President, Sachs Quality Stores, Inc.
George H. Schroder, President, Mutual Drug Sundry Company, Inc.
Rabbi Charles E. Schulman, Riverdale Temple
Mrs. Celia Stein, Riverdale Press
Hon. Eugene L. Sugarman, Deputy Comptroller of the City of New York
Hon. Felipe N. Torres, Judge, Family Court
Arthur A. Walsh, Executive Vice-President, Bronx Chamber of Commerce
Neil J. Walsh, Jr., Walsh and Walsh, Insurance Brokers
Louis E. Yavner, Attorney

ROLL OF HONOR

Bronx Community College, in a desire to acknowledge the support and inspiration it has received from the community, initiated the BCC "Roll of Honor" in 1963, when Charter Week, the annual celebration of the founding of the College, was inaugurated. The BCC Medallion Award is presented each year, as a token of gratitude and esteem, to citizens selected for their outstanding leadership and contribution to the College and community.

RECIPIENTS OF BCC MEDALLIONS

1963

Hon. Renato J. Azzari
Chairman, BCC Committee of Board of Higher Education

Hon. John E. Conboy
Member, BCC Committee of Board of Higher Education

Hon. Joseph Schlossberg
Member, BCC Committee of Board of Higher Education

Hon. Ruth S. Shoup
Member, BCC Committee and Secretary of Board of Higher Education
Hon. Gustave G. Rosenberg  
Chairman, Board of Higher Education

Dr. Morris Meister  
President, Bronx Community College

George D. Buscher  
Chairman, Advisory Committee of Bronx Community College

Judge Jonah J. Goldstein  
President, Grand Street Boys' Foundation

1964

Rev. William G. Kalaidjian  
Chairman, Bronx Council on the Arts

Hon. Benjamin F. McLaurin  
Member, BCC Committee of Board of Higher Education

Hon. Joseph F. Periconi  
President, Borough of the Bronx

1965

Dr. Ray E. Trussell  
Commissioner of Hospitals, City of New York

Hon. Arleigh B. Williamson  
Chairman, Joint Committee on Community Colleges,  
Board of Higher Education

1966

Dr. Abraham Tauber  
Dean of Faculty, Bronx Community College (1958-1967)  
Dean-in-Charge (Feb. 1, 1966 to July 31, 1967)

1967

Dr. Sidney Silverman  
Dean of Administration, Bronx Community College (1959-1968)

Mrs. Sadye Reiss  
President, Friends of Public Education of the Bronx, Inc.
GIFTS AND BEQUESTS TO THE COLLEGE

Although the City and State of New York contribute generously to the support of the Bronx Community College, there are certain needs for which the City and State do not provide. These can be met only by gifts of public spirited citizens.

The Bronx Community College has built a scholarship fund to help qualified and deserving young people to obtain a college education, in which faculty, staff, alumni, students and friends of the College have all cooperated.

Though tuition at the College is free for matriculated students, other expenses, including laboratory and student activities fees, books and personal needs, amount to about one hundred dollars a year, even for these students. Non-matriculants pay tuition fees, which, though reasonable and low by some standards, may stand between a student and a college education.

Gifts can be made by individuals or by fraternal, labor, management, social or religious organizations in the form of full or partial scholarships, cash contributions, bequests, income from endowments, or in honor or memory of someone. Such gifts to the College will insure a college education to many fine young people who otherwise might be denied an opportunity for higher education.

Many forms of contributions are available to those willing and able to play a part in building the Bronx Community College Scholarship Fund. These are allowable tax deductions for donors.

To arrange a gift, please contact the President of the College.

SUGGESTED FORM FOR GIFT

I give and bequeath to the Board of Higher Education of the City of New York, a corporation existing under and by virtue of the Education Law of the State of New York, as Trustee for the Bronx Community College, the sum of ____________ dollars to be known as the ____________ Fund (or otherwise describe the gift), principal and income (or the net income) of said fund to be used for (state purpose) or as the President of the College and the Board of Higher Education may determine.
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CATALOG PREPARED BY: Sharlene Schop, Public Information Officer
EDITORIAL COMMITTEE: Dr. Morton Rosenstock, Dr. Arthur Beringhouse,
Dr. Charles Monticone
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The College reserves the right to make changes in the regulations and courses announced in this bulletin, as circumstances may require.
ACCREDITATION

Bronx Community College is accredited by the Middle States Association of Colleges and Secondary Schools, through its Commission on Institutions of Higher Education, both as a unit of The City University of New York and as an individual college.

The curricula in Electrical and Mechanical Technologies are accredited by the Engineers' Council for Professional Development.

The Nursing curriculum is accredited by the National League for Nursing.

CHARTER

The New York State Board of Regents, through the Division of Higher Education of the New York State Department of Education, has chartered and approved all curricula and programs of Bronx Community College.

AFFILIATIONS

The Bronx Community College is a member of the American Association of Junior Colleges, the New York State Association of Junior Colleges, and the Council of Higher Educational Institutions in New York City.

In addition, the college and its faculty have numerous professional memberships and scholarly affiliations.

GOVERNING BODIES

The Board of Higher Education of the City of New York is the governing body of The City University of New York, including the Bronx Community College. The Board shares with the State University of New York Trustees various responsibilities for the College.

Admission Policies
Requirements
Procedures
Status on Admission

ADMISSION

An applicant for admission to Bronx Community College may be approved for one of the programs offered by the College if he fulfills all the requirements for entrance into the program of his choice. The information in the following pages will help the applicant with admission procedures.

Admission to a program at Bronx Community College is based on specific criteria used by the Committee on Admissions to appraise a student's academic potential.
Applicants for admission must present evidence of successful academic preparation for their selected curriculum. The applicant's high school record must show satisfactory completion of the required academic units, distributed according to the chart on page 8.

A student admitted on the basis of a New York State Equivalency Diploma or foreign credentials must present evidence of successful completion of the required foreign language, mathematics and science units where the curriculum calls for them.

An applicant with a deficiency of not more than one required unit, whose overall record indicates strong potential, may be accepted on the condition that the unit deficiency be removed within the time specified by the Committee on Admissions.

**ADMISSION AND PLACEMENT TESTS**

An applicant for admission to any program leading to a degree is required to take certain admissions and placement tests. Students must bring to registration all notices received as a result of placement tests taken at the college. The applicant will receive an announcement of dates for the placement tests.

**Scholastic Aptitude Test (CEEB-SAT)**

Applicants for admission to the TRANSFER CURRICULA (Liberal Arts and Sciences, Engineering Science, Business Administration, and Business Teaching) are required to take the College Entrance Examination Board-Scholastic Aptitude Test (CEEB-SAT). Application for the CEEB-SAT should be made directly to the COLLEGE EXAMINATION BOARD, Box 592, Princeton, New Jersey. A candidate should apply early and list the City University of New York (NOT Bronx Community College) as his college of first choice for reporting the score.

Candidates for September admission are required to take the CEEB-SAT the preceding December; for February admission, the preceding May or July. Results of tests taken at other times may be considered, if the results reach the Committee on Admissions in time for evaluation with the candidate's Application for Admission. Candidates for admission to the CAREER AND TECHNOLOGY CURRICULA who are considering a transfer program as an ultimate possibility are encouraged also to take the CEEB-SAT.

**BCC Placement Tests**

After admission, students are given a battery of placement tests in English, mathematics, foreign languages, and business subjects, according to college and curricular requirements. These tests are used as a basis for proper assignment to college-level study. Notification for taking these tests is sent to the student.
ADMISSION PROCEDURES AND REQUIREMENTS

1. APPLICATION FOR ADMISSION

The following application procedures for admission to Bronx Community College should be followed:

*Admission as a freshman (no previous college experience):*

A City University application form must be obtained from the applicant's high school guidance counselor, or secured by mail from the UNIVERSITY APPLICATION PROCESSING CENTER, Box 148, Vanderveer Station, Brooklyn, New York 11210, and filled out and returned, according to the instructions printed thereon.

*Admission on Transfer From Another Collegiate Institution, With Advanced Standing (all applicants with previous college experience):*

An application form must be obtained from the Admissions Office, Bronx Community College, and filled out and returned according to the instructions printed thereon. (See Advanced Standing Admission, page 6.)

*Foreign Students, Students with Equivalency Diplomas, or Reactivated Applicants:*

Application forms must be obtained from the Admissions Office, Bronx Community College and filled out and returned, according to the instructions printed thereon. (See Foreign Students, page 7.)

2. APPLICATION FEE

All applications must be accompanied by checks or money orders for $6.00, made out to City University of New York. (Instructions for submitting the fee are included with the application forms.)

3. DEADLINES FOR APPLICATIONS

All applications must be submitted by deadline dates: January 15 for the Fall Semester, and October 15 for the Spring Semester.

4. RESIDENCE LAWS AND TUITION FEES

Specific tuition fees are dependent on place of legal residence (with the exception of matriculants in Nursing, who attend tuition-free regardless of place of residence).

The New York State Education Law (Section 630, Paragraph 4) defines a New York State Resident as "a person who has resided in New York State for a period of at least one year and in the county for a period of at least six months, both immediately preceding the date of such person's registration in a Community College."

All New State residents who reside outside of New York City and plan to register at Bronx Community College must complete Residence Forms B 80 and B 81, available in the Bronx Community College Admissions Office. Form B 81, Certificate of Residence, should be
returned to the Bronx Community College Business Office before registration. New York State residents who live outside New York City but do not submit the required forms, will be charged non-resident fees. (See Tuition and Fees Schedule, page 48.)

5. HEALTH AND PHYSICAL STANDARDS—MEDICAL EXAMINATION FORMS

All students, matriculants and non-matriculants, are required to meet health and physical standards of the College, and must submit, as part of the application, a medical examination report on the form provided by the College. Final admission requires approval by the College of the student’s ability to meet the health and physical standards of the College set by its Committee on Admissions, including a special physical examination in the Nursing program, given in cooperation with the Department of Hospitals of the City of New York.

6. HOUSING FACILITIES

Dormitory facilities are available only for matriculants in the Nursing Curriculum.

ADVANCED STANDING ADMISSION

An applicant who has previously attended another college, university or nursing school must report that fact in his application and have the institution submit an official transcript including an official statement of the conditions of withdrawal directly to the Admissions Office. Even if attendance at such a college was for a short period of time, and no grades are recorded, a certificate of honorable dismissal is required.

A student seeking advanced standing must have his records evaluated by the Bronx Community College to determine matriculation status and remaining requirements for the degree. A student is allowed a maximum of 30 credits advanced standing (transfer credit) in equivalent course completed at accredited institutions of collegiate rank. The total number of credits allowed toward the associate degree by BCC may not exceed 30, regardless of whether the courses were taken at other institutions before admission, during attendance at, or after leaving Bronx Community College. Only courses passed with a minimum grade of C will be accepted from other institutions, except that grades of D received in equivalent courses taken in colleges of the City University will receive full transfer credit.

Grades of D received by students in colleges other than those of the City University of New York in courses equivalent to those in a Bronx Community College curriculum may not receive credit toward the associate degree. However, they do earn exemption from repeating such courses. These grades are calculated in the student's scholastic index, but the courses and credits are not creditable toward his degree except as indicated above.

Courses passed at BCC or another college with a grade of D or high
may not be repeated, except as an auditor (no credit) or with special permission. A student is permitted to repeat only once any courses he has failed.

FOREIGN STUDENTS

Applicants from other countries, applying on the basis of foreign credentials, must submit to the Admissions Office certified copies of official records of all past schooling at least two months before the deadline for applications.

In order to determine the applicant's mastery of the English language, the college requires all foreign students to take the "Test of English as a Foreign Language." Application should be made directly to: T.O.E.F.L. Educational Testing Service, Princeton, New Jersey.

Any applicant with advanced standing who fulfills the formula for matriculation, or who has demonstrated ability by his performance at another college, shall be exempt from taking T.O.E.F.L.

There are no housing facilities for students, except for those who are matriculated in the Nursing Program. Prospective students must give written evidence, along with their application, of their residence plans, means of supporting themselves and of paying tuition while in the United States. A limited number of qualified students from other countries are admitted tuition-free.

Applications of students from other countries must be sent directly to the Office of Admissions at Bronx Community College, (and not to the University Application Processing Center, as is true of all other applications). The "I-20" form (required by the U.S. Immigration Office) is issued only to students who have been accepted as all-time matriculants.

NEW YORK EQUIVALENCY DIPLOMA

Students applying on the basis of a New York State Equivalency diploma must submit:

a. copies of the Equivalency Diploma and General Educational Development Test Scores, and

b. official copies of any high school or college records they may have accrued.

Those applying on the basis of the New York State High School equivalency Diploma must have the necessary high school units (and A.T. scores if applying to a transfer program) and attain a total minimum raw score of 300 on the five General Educational Development tests in order to be admitted as a matriculated student.

Those applicants who do not meet the standards for admission as a matriculant may enroll in the college as non-matriculants and prove themselves by gaining matriculation through the formula. (See page 11.)
## REQUIRED HIGH SCHOOL UNITS FOR ADMISSION AS MATRICULANTS IN PROGRAMS LEADING TO

### A.A. DEGREE (Associate in Arts) Transfer Programs

### A.S. DEGREE (Associate in Science) Transfer Programs

### A.A.S. DEGREE (Associate in Applied Science) Career Programs

### A.A.S. DEGREE (Associate in Applied Science) Transfer Programs

For Admission to the program or curriculum in:

<table>
<thead>
<tr>
<th>Minimum Required Units in:</th>
<th>AMERICAN HISTORY</th>
<th>ENGLISH</th>
<th>FOREIGN LANGUAGE</th>
<th>MATHEMATICS</th>
<th>SCIENCE</th>
<th>APPROPRIATE ELECTIVES</th>
<th>TOTAL</th>
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<td>3</td>
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<td>1</td>
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<td>2 1/2</td>
<td>1</td>
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<tr>
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<tr>
<td>Electrical Technology (A.A.S.)</td>
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<tr>
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<td>3</td>
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<td>2</td>
<td>3</td>
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<tr>
<td>MEDICAL LAB. TECHNOLOGY (A.A.S.)</td>
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<td>4</td>
<td>0</td>
<td>2 1/2</td>
<td>2 100</td>
<td>6 1/2</td>
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<td>NURSING (A.A.S.)</td>
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<td>2*</td>
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<tr>
<td>X-RAY TECHNOLOGY (A.A.S.)</td>
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<td>2*</td>
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</tbody>
</table>
(1) Applicants with a deficiency in a required unit but meeting all other entrance requirements, may be accepted on condition. The condition must be removed within the time specified by the Committee on Admissions.

(2) Applicants with Equivalency Diplomas must complete requirements in FOREIGN LANGUAGE, MATHEMATICS, AND SCIENCE BEFORE THEY CAN BE CONSIDERED FOR MATRICULANT STATUS.

# Applicants must meet special standards in musical aptitude and ability, as well as demonstrate proficiency in vocal or instrumental areas, to be determined by tests, auditions and interviews.

* One must be Elementary Algebra; bookkeeping or business arithmetic acceptable.
‡ One must be Chemistry or Physics.
† One must be Biology or Chemistry.
∞ Biology and Chemistry required.
§ One must be Biology.

Explanation of MATHEMATICS UNITS:

1 Unit must be 9th Yr. Math (Elem. Algebra) 3 Units must include 9th Yr. Math (Elem. Algebra)
2 Units must include 9th Yr. Math (Elem. Algebra) 10th Yr. Math (Plane Geometry)
2½ Units must include 9th Yr. Math (Elem. Algebra) 11th Yr. Math (Int. Alg. and Trig.)

10th Yr. Math (Plane Geometry)
Intermediate Algebra

3½ Units must include 10th Yr. Math (Plane Geometry)
11th Yr. Math (Int. Alg. and Trig.)
Advanced Algebra
All inquiries and information pertaining to admission to the College should be addressed:

ADMISSIONS OFFICER  
Bronx Community College  
The City University of New York  
120 East 18th Street  
Bronx, New York 10468  
Phone: (212) WEllington 3-7000

MATRICULATION

Upon admission to the College, a student is designated as matriculant or non-matriculant according to standards set by the Committees on Admissions and Academic Standing. Matriculation status, and a student's candidacy for a degree, are determined by academic potential and qualifications as evidenced by achievement in high school or college, and on admissions examinations.

The student's matriculation status determines the course load he may carry during a semester, the order of priority in registration, and his qualification for free tuition, if he is a New York City resident.

Official determination of scholastic index and certification of matriculation classification of students already in attendance are made by the Registrar's Office, in accordance with standards set by the Committee on Academic Standing.

CLASSIFICATION AND CATEGORIES (DEFINITIONS)

Matriculated Student:

A student who is a candidate for an associate degree, has met the college admission requirements by offering satisfactory high school scholastic attainment in prescribed units, and has achieved adequate entrance examination scores is classified as a matriculant. A student remains in this classification as long as he pursues continuous academic work on a regular basis in the sequence of prescribed courses in his curriculum, and maintains a satisfactory scholastic index.

A matriculant may carry a full or part-time program of courses leading to a degree, and may register for day and/or evening classes, according to his choice and the availability of class space. Matriculants have priority in the registration schedule according to seniority determined by credits taken in college. A full-time course load generally does not exceed sixteen credits, or the number listed for that semester of the curriculum in the Curriculum Patterns (pages 15 to 46.)

Residents of New York City classified as matriculants attend tuition-free. Non-residents of New York City must pay tuition according to the Fee Schedule on page 49, unless they are matriculants in the Nursing curriculum.

Non-Matriculated Student:

A classified non-matriculant is a student who has failed to gain matriculant status because his records in high school or his College En-
trance Examination Board or other Admissions Tests were below the standards set for matriculation, or who has lost matriculation after once having been granted that status.

An unclassified non-matriculant is a student who either presented incomplete records for admission, or applied too late, or had high school conditions (deficiencies in mathematics, science or foreign language), or who had transferred from another college with an unsatisfactory record.

A non-matriculant may take a maximum program of two courses (not to exceed 10 credits), or if more than two courses, then not to exceed 6 credits. Any non-credit course taken to remove an entrance condition (deficiency) is considered a part of the program weight.

A non-matriculant is a part-time student, pays tuition, and generally can take courses only in the evening. If space is available in day classes, it may be possible to take one or both courses during the day. Availability of space in the day classes is not known until registration time for the non-matriculant.

Appropriate degree-credited courses successfully completed as part of a well-balanced program (see page 13) can be applied towards the Associate Degree requirements, once the student becomes matriculated.

High school graduates and qualified adults who are not active candidates for a degree but wish to enroll in courses without being bound to the requirements of a degree program are designated as unclassified non-matriculants.

GAINING MATRICULATION

Unclassified Non-Matriculants

An unclassified non-matriculant may attain matriculant status by reclassification by the Registrar's Office. After all required official records are submitted, and if such records indicate that the student had met all the requirements for matriculation (including health and physical) set for the date of the student's initial application for admission to the College by the Committee on Admissions, and he has made up any deficiencies or conditions that previously prevented matriculation status, and he has maintained satisfactory college achievement, his status may be adjusted. (An unclassified non-matriculant may become a matriculant directly or become a classified non-matriculant first.)

Classified Non-Matriculants

A classified non-matriculant may earn matriculation status by reclassification by the Registrar's Office based on evidence that the student has completed all high school admission units required for his curriculum, has taken all tests required of applicants for matriculation, and has attained a minimum scholastic index of 2.50 in an approved well-balanced program (see page 13) of 12* degree credits successfully completed, or

*At least the last 6 credits must be taken at BCC.
**At least the last 12 credits must be taken at BCC.
a minimum scholastic index of 2.00 in an approved well-balanced program of 24** degree credits.

REMOVAL OF ENTRANCE CONDITIONS

A student lacking the required high school units for admission to his curriculum may be admitted to the college with conditions. After admission, he must take at least one condition make-up course per semester until all conditions are removed. Such courses count as part of the maximum program load each semester, although not creditable toward a degree. Grades in credit courses taken to remove conditions will be included in the scholastic index, although they are not creditable toward the degree. Grades in non-credit courses are not included in the scholastic index.

FULL-TIME STATUS

Full-time students are those matriculants who are taking at least 12 credits or the equivalent in program load. Matriculants taking fewer than 12 credits or the equivalent are not considered full-time, for purposes of New York State Regents Scholarships, Scholar Incentive Awards, Selective Service, United States Immigration Service, etc.

For purposes of Selective Service, State Scholarships, and foreign student visa status, a student must be carrying a full-time load or its equivalent.

DEGREE REQUIREMENTS

The required courses for the various degrees are listed in the section on the Curricula and Programs (See pages 14-46).

The student is responsible for ascertaining and completing all the requirements for the degree for which he is a candidate at the time he matriculates. He is required to complete all courses prescribed by his curriculum before active candidacy and consideration for a degree can be entertained.

Courses taken to remove entrance unit deficiencies (conditions), and those courses recommended as a result of Placement Examinations which are not part of the degree course requirements in the curriculum, are not creditable toward the degree and are not considered in calculating the minimum and maximum credits required for the degree.

A cumulative index of 2.00 is required for the Associate Degree. Candidates for the degree must be approved by the Faculty for submission to the President and the Board of Higher Education as worthy, meritorious and deserving, including moral and character qualifications in their record.

PROGRAM ALLOWANCES AND COURSE LOADS

FULL PROGRAMS

Matriculants

A full program for a matriculant (who is not in the limited program category) consists of the number of credits listed in the most recent for-
semester curriculum pattern for the semester in which the student is enrolled, and is not to exceed the maximum number of credits listed for any semester in that curriculum.

Non-matriculants

The maximum program for a non-matriculant (who is not in the limited program category according to the INDEX CLASSIFICATION CHART) is two courses, not to exceed 10 credits; or, if more than two courses, then not to exceed 6 credits.

LIMITED (PROBATION) PROGRAMS

A student may be required to take a limited (probation) program until such time as his index permits him to take a maximum program.

Newly admitted matriculated students may be assigned a limited program, based on the standards of the curriculum and the recommendation of the Curriculum Coordinator.

Matriculants

A limited program for a matriculant consists of no more than 14 credits for a student without full-time, extra-college responsibility; no more than three courses or 10 credits for a student with full-time, extra-college responsibility.

Non-matriculants

A limited program for a non-matriculant consists of no more than one course or 3 credits.

THE WELL-BALANCED PROGRAM FOR PART-TIME STUDENTS

To attain or maintain matriculated status, students must select their courses so as to include a balance of work selected from the areas enumerated below for the different curricula, in each group of 12 to 14 degree credits.

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Courses or Area</th>
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<tbody>
<tr>
<td>Business Admin.</td>
<td>Mod. Lang.</td>
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<tr>
<td>Business (Career)</td>
<td>Math (not Business)</td>
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<tr>
<td>Business Teaching</td>
<td>Mod. Lang.</td>
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<tr>
<td>Chem. Tech.</td>
<td>Math</td>
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<tr>
<td>(incl. Pre-Pharm.)</td>
<td>Math</td>
</tr>
<tr>
<td>Eng'g. Science</td>
<td>Math</td>
</tr>
<tr>
<td>Elec. Tech.</td>
<td>Math</td>
</tr>
<tr>
<td>Lib. Arts &amp; Sci.</td>
<td>Math</td>
</tr>
<tr>
<td>Medical Lab. Tech.</td>
<td>Speech</td>
</tr>
<tr>
<td>Perf. Arts-Music</td>
<td>Math</td>
</tr>
<tr>
<td>Robotics Tech.</td>
<td>Math</td>
</tr>
<tr>
<td>C-Ray Tech.</td>
<td>Mod. Lang.</td>
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<th>Major Area</th>
<th>English</th>
<th>History</th>
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THE CURRICULA

This section describes the curricular offerings and their purposes. It deals specifically with the curriculum patterns and courses prescribed for each curriculum and its options and/or specialization.

The student is urged to study carefully the requirements of his curriculum and consult regularly with his Adviser, in order to receive guidance in the planning of his program each semester so as to meet his curriculum requirements. The student is responsible for completing the courses and requirements of his curriculum for the designated degree. The student’s Adviser will help him plan his program each semester and render his advice throughout his attendance at Bronx Community College.

CURRICULA AND PROGRAMS

DEGREE PROGRAMS OFFERED

The applicant to Bronx Community College may be admitted to one of the various curricula offered. Detailed descriptions of the requirements for the degree in the curricula (and options) appear on pages 14-46.

The following list summarizes the programs:

1. Business Administration
   - Transfer Program—A.A. Degree for transfer to Baruch College of the City University of New York
   - Options: Accounting; Retailing

2. Business Teaching
   - Transfer Program—A.A. Degree for transfer to Hunter College of the City University of New York
   - For students planning to teach Secretarial Studies, or Bookkeeping and Accounting on the secondary level

3. Business (Career)
   - Career Program—A.A.S. Degree
   - Options: Accounting, Retail Business Management, Executive Secretarial, Legal Secretarial, School Secretarial, Medical Secretarial Assistant, Data Processing (Machine Operations and Programming)

4. Chemical Technology
   - Transfer Program (to a College of Pharmacy, only)—A.A.S. Degree Option: Pre-Pharmacy
   - Career Program—A.A.S. Degree Options: Chemical Technology, Plastics Technology

5. Engineering Science
   - Transfer Program—A.A. Degree

6. Electrical Technology
   - Career Program—A.A.S. Degree
7. Mechanical Technology
   • Career Program—A.A.S. Degree

8. Liberal Arts and Sciences
   • Transfer Program—A.A. Degree
   • Transfer Program—A.S. Degree

9. Medical Laboratory Technology
   • Career Program—A.A.S. Degree

10. Nursing
    • Career Program—A.A.S. Degree

11. Performing Arts-Music
    • Transfer Program or Career—A.A.S. Degree for transfer to the New York College of Music

12. X-Ray Technology
    • Career Program—A.A.S. Degree

THE PROGRAMS IN BUSINESS

The College offers a well-balanced program of study in each of the areas of the Business Curricula for those who wish to attend college for two years only as well as for those who plan to pursue further study at a senior college and earn a baccalaureate degree. Each of the Business programs at Bronx Community College combines general education in English and literature, the social studies, the humanities, and the sciences, with specialized training in the student's choice of career and curriculum.

The programs offered in the Business and Commerce Department fall into three categories. They are: Business Career, a two-year program which leads to the A.A.S. degree; Business Administration, a transfer program which leads to the A.A. degree and to the third year at Baruch College and Hunter College of The City University of New York; and Business Teaching, a special program for students planning to teach business subjects at the high school level, which leads to the A.A. degree and to the third year at Baruch College and at Hunter College.

The specific requirements and characteristics of the three categories are described and explained on pages 15-29.

BUSINESS CAREER CURRICULA

There are several areas in the Business Career Curricula leading to the A.A.S. degree. A student may pursue a Business Career specialization in: 1) Accounting, 2) Retail Business Management, or 3) Executive Secretarial. The Executive Secretarial specialization includes four options: General Secretary, Legal Secretary, Medical Secretarial Assistant, and School Secretary.

Or he may pursue the Data Processing Curriculum with a specialization in either (a) Machine Operations or (b) Computer Programming and Systems.

Upon satisfactory completion of his work at Bronx Community
College, the student may seek immediate employment in the field of his choice. Should the student decide to continue his college studies and desire to transfer to the third year at Baruch College, he may do so as a matriculated student there, only if he has maintained a scholastic index of 3.00 at Bronx Community College. Or, he may transfer to another appropriate college of his choice provided he meets the requirements of that institution; or he may decide—within the first year of his enrollment at Bronx Community College—upon intra-curriculum transfer.

**BUSINESS CAREER CURRICULUM**

1. Accounting Specialization

The accountant is indispensable in modern business organization and management. His basic responsibilities include the recording and summarizing of financial transactions. The expert accountant is called upon to analyze, interpret and prepare business reports, often including recommendations for more efficient operations.

Graduates may enter this field of specialization in such positions as bookkeepers, cost accounting clerks, junior accountants, and tax examiners for government agencies. With further study, graduates may go on to the baccalaureate degree and become business managers, budget directors, private accountants, controllers.

With further appropriate training and experience, graduates may qualify for certification as Certified Public Accountant or as teachers of accounting and related subjects.

**Curriculum Pattern for the Accounting Specialization**

**70 Credits required for A.A.S. Degree**

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<td>or</td>
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<td>ECO 21</td>
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<td>FIN 31</td>
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BUSINESS CAREER CURRICULUM

2. Retail Business Management Specialization

The retailer serves as a vital link between producer and consumer. Retailing organizations may be independent, chain or department stores, buying offices, or mail-order houses, all of which sell myriad products through a wide variety of outlets and by various techniques.

Students earn while they learn during their senior semester in the Cooperative Work Experience program which provides part-time, supervised employment in a college-approved retail organization.

Successful completion of the retailing curriculum prepares a graduate to start a business career in such positions as: assistant buyer, head of stock, assistant store manager, comparison shopper, salesman, distributor, section manager.

Curriculum Pattern for the Retail Business Management Specialization

68 Credits required for A.A.S. Degree

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<td>Intro. to Physical Education</td>
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<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
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<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
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<tr>
<td>RET 11</td>
<td>Marketing</td>
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<td>RET 13</td>
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**FIRST YEAR**

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<td>Retail Buying Techniques</td>
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<td>MUS 11</td>
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<td>BIO 18</td>
<td>Human Physiology</td>
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<td>RET 36</td>
<td>Retail Merchandising</td>
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</tr>
<tr>
<td>RET 41</td>
<td>Retail Operations</td>
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<tr>
<td>RET 43</td>
<td>Retail Advertising and Sales Promotion</td>
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**Fourth Semester**

**Second Semester**

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**FIRST YEAR**

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**SECOND YEAR**

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<td>Business Law</td>
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<td>RET 31</td>
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<td>Retail Buying Techniques</td>
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**FOURTH SEMESTER**

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<td>BIO 18</td>
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<td>RET 41</td>
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**Students may select BIO 11, CHM 11, PHY 11, or SCI 11.**

§ Or MTH 16, Intro. College Math. 2, for those with Intermediate Algebra; or MTH 17, College Algebra, for those with Trigonometry who intend to transfer.

† Or MTH 53, Current Retailing Concepts (2 credits) for Evening Session students only.

* SPH 01, Speech Clinic, may be required (as determined by Department of Speech).

‡ May be waived for Evening Session students with approval of curriculum adviser.
The College offers the student four options within the specialization of Executive Secretary—(a) General Secretary; (b) Legal Secretary; (c) Medical Secretarial Assistant, and (d) School Secretary. Graduates qualify as secretaries in business—advertising, publishing, finance, in Government civil service positions; in law offices—assisting attorneys and judges; in doctors' offices and hospitals—assisting general practitioners, specialists, and hospital administrators; in school offices—assisting administrators.

### a. Curriculum Pattern for General Secretary Option.

**64-67** **Credits required for A.A.S. Degree**

#### FIRST YEAR

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<td>HIS 11 History of Civilization</td>
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<td>BIO 18 Human Physiology</td>
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#### SECOND YEAR

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<td>§MTH 11 Intro. College Math.</td>
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- Students who have had previous training in Stenography and Typing may be exempt from STE 11 or 15 and TYP 11 upon passing qualifying examination.
- Students receiving exemption in Stenography and Typing need 64 credits; others require the 67 credits.
- § Or MTH 16, Intro. College Math. 2, for those with Intermediate Algebra; or MTH 17, College Algebra, for those with Trigonometry who intend to transfer.
- ***To be chosen from: English, Speech, Modern Language, Social Studies, Science, Mathematics, or Health and Physical Education.
- † May be waived for Evening Session students with approval of curriculum adviser.
### Executive Secretary Specialization

**b. Curriculum Pattern for Legal Secretary Option.**

65-69** Credits required for A.A.S Degree

<table>
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**FIRST YEAR**

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<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
</tr>
<tr>
<td>BIO 18</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>*STE 11</td>
<td>Typing 1 (Gregg or Pitman)</td>
<td>2</td>
</tr>
<tr>
<td>*TYP 11</td>
<td>Typing 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18 1/2</td>
</tr>
</tbody>
</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>STE 13</td>
<td>or 17 Stenography 3</td>
<td>3</td>
</tr>
<tr>
<td>TYP 13</td>
<td>Typing 3</td>
<td>2</td>
</tr>
<tr>
<td>LAW 47</td>
<td>Legal Procedures</td>
<td>3</td>
</tr>
<tr>
<td>STE 31</td>
<td>Legal Stenography 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

**Executive Secretary Specialization**

**c. Curriculum Pattern for Medical Secretarial Assistant Option**

68-69 Credits required for A.A.S Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 15</td>
<td>Fund. Composition</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
</tr>
<tr>
<td>BIO 18</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>*TYP 11</td>
<td>Typing 1</td>
<td>2</td>
</tr>
<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 11</td>
<td>Music Appreciation</td>
<td>1-4</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>16</td>
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**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENG 14</td>
<td>Comp. &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td></td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>§MTH 11</td>
<td>Intro. College Mathematics</td>
<td>5</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting 1</td>
<td>4</td>
</tr>
<tr>
<td>STE 12</td>
<td>or 16 Stenography 2</td>
<td>3</td>
</tr>
<tr>
<td>TYP 12</td>
<td>Typing 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>17 1/2</td>
</tr>
</tbody>
</table>

* Students who have had previous training in Stenography and Typing may be exempt from STE 11 or 15 and TYP 11 upon passing qualifying examination.

**Students receiving exemption in Stenography and Typing need not less than 65 credits; others require 69 credits.

§ Or MTH 16, Intro. College Math. 2, for those with Intermediate Algebra; or MTH 17, College Algebra, for those with Trigonometry who intend to transfer.

† May be waived for Evening Session students with approval of curriculum adviser.

*** To be chosen from: English, Speech, Modern Languages, Social Studies, Science, Mathematics, or Health and Physical Education.
## Executive Secretary Specialization

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td>ENG 13</td>
</tr>
<tr>
<td>HLT 11</td>
</tr>
<tr>
<td>HIS 11</td>
</tr>
<tr>
<td>BIO 18</td>
</tr>
<tr>
<td>BUS 11</td>
</tr>
<tr>
<td><em>STE 11 or 15 Stenography</em></td>
</tr>
<tr>
<td><strong>TYP 11 Typing</strong></td>
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**SECOND YEAR**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 11</td>
<td>Music Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>3</td>
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<tr>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td><strong>FIN 31</strong></td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td><strong>STE 15 or 17 Stenography</strong></td>
<td></td>
<td>3</td>
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<tr>
<td><strong>TYP 13 Typing</strong></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>SEC 47 Education Problems of School Secretaries</strong></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>18-16</td>
</tr>
</tbody>
</table>

### Students who have had previous training in Typing may be exempt from TYP 11 upon passing qualifying examination.

### Or MTH 16, Intro. College Math. 2, for those with Intermediate Algebra; or MTH 17, College Algebra, for those with Trigonometry who intend to transfer.

### To be chosen from: English, Modern Languages, Social Studies, Science, or Mathematics.

### May be waived for Evening Session students with approval of curriculum adviser.

### Executive Secretary Specialization

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td>ENG 14</td>
</tr>
<tr>
<td>HLT 21-21 Physical Education</td>
</tr>
<tr>
<td>HIS 12</td>
</tr>
<tr>
<td>SMTH 11</td>
</tr>
<tr>
<td>ACC 11</td>
</tr>
<tr>
<td><strong>STE 12 or 16 Stenography</strong></td>
</tr>
<tr>
<td><strong>TYP 12 Typing</strong></td>
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<td><strong>Total</strong></td>
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</table>

### SECOND YEAR

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TYP 11 Typing</strong></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>SEC 41 Secretarial Practice</strong></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>14-18</td>
</tr>
</tbody>
</table>

### Students exempted from STE 11 or 15 or TYP 11 should substitute FIN 31.

### Students exempted from STE 11 or 15 and TYP 11 should substitute FIN 31 and elective.

### To be chosen from: English, Speech, Modern Languages, Social Studies, Science, Mathematics, or Health and Physical Education.

### Or MTH 16, Intro. College Math. 2, for those with Intermediate Algebra; or MTH 17, College Algebra, for those with Trigonometry who intend to transfer.

### May be waived for Evening Session students with approval of his curriculum adviser.
BUSINESS ADMINISTRATION CURRICULUM
(Transfer to Baruch College)

The Business Administration program is designed to provide the student with an introduction to either Accounting or Retailing as part of a foundation for continuing for a baccalaureate degree at Baruch College of the City University of New York, to which he may transfer automatically upon graduation from Bronx Community College provided he has maintained a scholastic index of 2.00. This program also provides a basis for transfer to any other appropriate senior business college for which the student qualifies and chooses to attend. Upon graduation from Bronx Community College, the student earns the A.A. degree. Following are descriptions of the two options in this program and the sequence of courses needed for fulfillment of degree requirements.

Accounting

The Accounting option of the Business Administration program prepares the student with fundamental courses in business and accounting and provides him with the proper background for transfer into the senior college and completion of the baccalaureate degree. The student who desires a career in executive and administrative positions in finance and budget direction, or in related business areas, should pursue this program. Upon completion of further appropriate education and training, and with experience, students may qualify by state examination as Certified Public Accountants, or as teachers in the field of business administration.

Language Requirements for Transfer to Baruch College

A student who has completed 4 years of a foreign language in high school is exempt from the language requirement.

All students who have had less than 4 years of French, German, Italian, Russian or Spanish must take a language placement examination before being assigned to the appropriate course level based upon the following:

A student who has taken 3 or 3½ years of one of the above languages in high school is required to complete 1 semester of that foreign language and is exempt from a subsequent semester of the language.

A student who has taken 2 or 2½ years of one of the above languages in high school must take 2 semesters of that foreign language.

A student who has taken 1 or 1½ years of a foreign language must complete 3 semesters of that foreign language.

A student who has taken less than 1 year of a foreign language in high school must complete 4 semesters of a foreign language.

A student starting a new language in college must complete 4 semesters of French, German, Italian, Russian or Spanish.

Students presenting high school Hebrew or Latin are required to change to a new language.

Students who have less than 2 years of high school language should consider making up this deficiency in summer session.
**BUSINESS ADMINISTRATION**

1. **Curriculum Pattern for the Accounting Option (Transfer to Baruch College)**

   **69-70 Credits required for A.A. Degree**

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fund. Composition</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
</tr>
<tr>
<td>*</td>
<td>Modern Language</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization</td>
</tr>
<tr>
<td><strong>MTH 17</strong></td>
<td>College Algebra</td>
</tr>
<tr>
<td>or</td>
<td>MTH 31</td>
</tr>
<tr>
<td>RET 11</td>
<td>Marketing</td>
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</table>

**Total 18 ½**

<table>
<thead>
<tr>
<th><strong>SECOND YEAR</strong></th>
<th><strong>Fourth Semester</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Third Semester</strong></td>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
</tr>
<tr>
<td>HLT 21-81 (choose one)</td>
<td>Economics</td>
</tr>
<tr>
<td>ECO 21</td>
<td>†Science</td>
</tr>
<tr>
<td>ACC 12</td>
<td>Fundamental Accounting</td>
</tr>
<tr>
<td>BUS 41</td>
<td>Business Statistics</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
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</table>

**Total 16 ½**

<table>
<thead>
<tr>
<th><strong>Fourth Semester</strong></th>
<th><strong>Course No.</strong></th>
<th><strong>Course Title</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>§ May be waived for Evening Session students with approval of his curriculum adviser.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* See Language Requirements for Transfer to Baruch College, Page 21.

** Students who have taken Advanced Algebra in high school may be exempt from College Algebra by satisfactory performance in an examination given by the Department of Mathematics. In this instance, MTH 31, Analytic Geometry and Calculus, is required.

† A student may choose one year of any one of those sciences of Biology, Chemistry or Physics which he has not had in high school.

A student who elects one year of that science which he has had in high school must take one semester of one of the other sciences at Baruch College, as they require.

A student who elects Principles of Science (SCI 11 and 12) must take two semesters at Baruch College, as described in its Curriculum Handbook.

Note: Students exempted from courses will arrange for course substitutions through the head of the Department of Business and Commerce.
BUSINESS ADMINISTRATION

Retailing

For those students who wish to prepare for a career in retailing, this option of the Business Administration program provides them with basic courses before transferring into the four-year college. Administrative and executive positions require a firm foundation in the business subjects included in this curriculum.

2. Curriculum Pattern for the Retailing Option (Transfer to Baruch College)

66-67 Credits required for A.A. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course No.</strong></td>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td>ART 11</td>
<td>MUS 11</td>
</tr>
<tr>
<td>ENG 13</td>
<td>ENG 14</td>
</tr>
<tr>
<td>HLT 11</td>
<td>HLT 21-81</td>
</tr>
<tr>
<td>HIS 11</td>
<td>HIS 12</td>
</tr>
<tr>
<td><strong>MTH 17</strong></td>
<td><strong>ACC 11</strong></td>
</tr>
<tr>
<td>MTH 31</td>
<td><strong>RET 41</strong></td>
</tr>
<tr>
<td>RET 11</td>
<td><strong>Total</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
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<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Fourth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course No.</strong></td>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td>SPH 11</td>
<td>SPH 12</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>HLT 21-81</td>
</tr>
<tr>
<td>ECO 21</td>
<td>PSY 21</td>
</tr>
<tr>
<td>BUS 41</td>
<td>LAW 41</td>
</tr>
<tr>
<td>RET 33</td>
<td>RET 35</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

* See Language Requirements for transfer to Baruch College, page 21.

** Students who have taken Advanced Algebra in high school may be exempt from College Algebra by satisfactory performance on an examination given by the Department of Mathematics. In this instance, MTH 31, Analytic Geometry and Calculus is required.

† A student may choose one year of any one of the sciences of Biology, Chemistry or Physics which he has not had in high school.
A student who elects one year of that science which he has had in high school must take one semester of one of the other sciences at Baruch College, as they require.
A student who elects Principles of Science (SCI 11 and 12) must take two semesters at Baruch College, as described in its Curriculum Handbook.

§ May be waived for Evening Session students with approval of curriculum adviser.

Note: Students exempted from courses will arrange for course substitutions through the Head of the Department of Business and Commerce.
The Business Teaching program offers two plans to students preparing to teach in high school: (1) For students planning to teach Bookkeeping and Accounting at the secondary level and who plan to transfer to Hunter College; (2) For students planning to teach Secretarial Studies at the secondary level and who plan to transfer to Hunter College. Both programs lead to the A.A. degree. Upon successful completion of this program, a student may transfer to the third year at Hunter College provided he has maintained a scholastic index of 2.00 at Bronx Community College.

### 1. Curriculum Pattern for the H. S. Teaching Option: Bookkeeping and Accounting (Transfer to Hunter College)

#### 67 1/2-70 1/2 Credits required for A.A. Degree

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course No.</strong></td>
<td><strong>Course Title</strong></td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fund. Composition 1</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17 1/2</td>
</tr>
<tr>
<td><strong>SECOND YEAR</strong></td>
<td><strong>Fourth Semester</strong></td>
</tr>
<tr>
<td><strong>Course No.</strong></td>
<td><strong>Course Title</strong></td>
</tr>
<tr>
<td>††SPH 11</td>
<td>Speech Fundamentals</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
</tr>
<tr>
<td>*</td>
<td>Modern Language or Elective</td>
</tr>
<tr>
<td>†</td>
<td>Science</td>
</tr>
<tr>
<td>ACC 13</td>
<td>Intermediate Accounting</td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16 1/2-17 1/2</td>
</tr>
</tbody>
</table>

* See Language Requirements for transfer to Hunter College, page 25.
† Students who have had Advanced Algebra in high school should substitute MTH 81, Analytic Geometry and Calculus.
†† Remedial Speech, SPH 01 may also be required as determined by the Department of Speech, in order to meet the standards required for passing the Qualifying Examination in Speech for prospective teachers.
‡ A student must choose a two-semester sequence in one of the sciences of Biology, Chemistry or Physics.
** May be waived for Evening Session students with approval of his curriculum adviser.

# Elective substitutions for exemptions based upon placement examinations: Maximum 15 credits.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 15</td>
<td>Comp. &amp; Drama</td>
<td>3</td>
</tr>
<tr>
<td>ENG 16</td>
<td>Comp. &amp; Poetry</td>
<td>3</td>
</tr>
<tr>
<td>SPH 12</td>
<td>Advanced Speech</td>
<td>2</td>
</tr>
<tr>
<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PHL 21</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td><strong>MTH 14</strong></td>
<td>Survey of Mathematics 2</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Students exempted from courses will arrange for course substitution through the Head of the Department of Business and Commerce.
### BUSINESS TEACHING CURRICULUM

#### 2. Curriculum Pattern for H. S. Teaching Option: Secretarial Studies

**(Transfer to Hunter College)**

| 67½-70½ Credits required for A.A. Degree |

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fund. Composition</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>½</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization</td>
<td>3</td>
</tr>
<tr>
<td>* Modern Language</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>STE 11 or 15</strong></td>
<td>Stenography 1</td>
<td>3</td>
</tr>
<tr>
<td><strong>TYP 11</strong></td>
<td>Typing 1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 14</td>
<td>Comp. &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>½</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization</td>
<td>3</td>
</tr>
<tr>
<td>* Modern Language</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>†MTH 13</td>
<td>Survey of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>STE 12 or 16</td>
<td>Stenography 2</td>
<td>3</td>
</tr>
<tr>
<td><strong>TYP 12</strong></td>
<td>Typing 2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17½-18½</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Students who have had previous training in Stenography and Typing may be exempt from STE 11 or 15 and TYP 11 upon passing qualifying examination.**

**Students who have had Advanced Algebra in high school should substitute MTH 51, Analytic Geometry and Calculus.**

**A student must choose a two-semester sequence in one of the sciences of Biology, Chemistry or Physics.**

**Remedial Speech, SPH 01 may also be required as determined by the Department of Speech, in order to meet the standards required for passing the Qualifying Examination in Speech for prospective teachers.**

**May be waived for Evening students with approval of curriculum adviser.**

**Elective substitutions for exemptions based upon placement examinations: Maximum—15 credits.**

---

**Language Requirements for Business and Commerce Transfer to Hunter College**

All students who have had French, German, Italian, Russian or Spanish in high school must take a language placement examination before being assigned to the appropriate course level based upon the following:

A student who has taken 4 years of a foreign language in high school is required to complete 2 semesters of that foreign language.

A student who has taken 3 or 3½ years of one of the above languages in high school is required to complete 2 semesters of that foreign language. To satisfy the language requirements at Hunter College, the student is advised to elect one additional semester of that language.

Students who have had less than 3 years of high school language should consider making up this deficiency in Summer Session.

Students who have taken 2 or 2½ years of the above languages must take 4 semesters of that language.

Students starting a new language must complete 4 semesters of French, German, Italian, Russian or Spanish.

Students presenting high school Hebrew or Latin are permitted to continue their high school language at another college, if they so desire.

---

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>½</td>
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<tr>
<td>†SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td># Elective</td>
<td>3-4</td>
<td></td>
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<tr>
<td>† Science</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>STE 13 or 17</td>
<td>Stenography 3</td>
<td>3</td>
</tr>
<tr>
<td>TYP 13</td>
<td>Typing 3</td>
<td>2</td>
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<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
<td>3</td>
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**SECOND SEMESTER**

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<td>†ORI 43</td>
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<tr>
<td>HLT 91</td>
<td>Personal and Community Health</td>
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<td>ECO 21</td>
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<td>3</td>
</tr>
<tr>
<td>* Modern Language or</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td># Elective</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>† Science</td>
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<td></td>
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<td>LAW 41</td>
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<td>3</td>
</tr>
<tr>
<td>STE 14 or 18</td>
<td>Stenography 4</td>
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**SECOND YEAR**

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<th>Credit</th>
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<tbody>
<tr>
<td>ENG 15</td>
<td>Comp. &amp; Drama</td>
<td>3</td>
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<tr>
<td>PHL 21</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>ENG 16</td>
<td>Comp. &amp; Poetry</td>
<td>3</td>
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BUSINESS TEACHING CURRICULUM
(Transfer to Baruch College)

The Business Teaching program offers three plans to students preparing to teach in high school: 1) For students planning to teach Bookkeeping and Accounting at the secondary level and who plan to transfer to Baruch College; 2) for students planning to teach Secretarial Studies at the secondary level and who plan to transfer to Baruch College; 3) for students planning to teach Retailing (Distributive Education) at the secondary level and who plan to transfer to Baruch College. These programs lead to the A.A. degree. Upon successful completion of this program, a student may transfer to the third year at Baruch College provided he has maintained a scholastic index of 2.00 at Bronx Community College.

BUSINESS TEACHING CURRICULUM

1. Curriculum Pattern for H. S. Teaching Option: Bookkeeping and Accounting
(Transfer to Baruch College)

67-68 Credits for A.A. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
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<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENG 13</td>
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<td>3</td>
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<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1½</td>
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<td>* Modern Language</td>
<td></td>
<td>4</td>
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<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>**MTH 17</td>
<td>College Algebra or</td>
<td></td>
<td></td>
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<tr>
<td>MTH 51</td>
<td>Anal. Geom. and Calc. 3-4</td>
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SECOND YEAR

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<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>½</td>
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<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
</tr>
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<td>* Science</td>
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<td>ACC 12</td>
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<td>Business Organization</td>
<td>8</td>
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<tr>
<td>and Management</td>
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2. Curriculum Pattern for H. S. Teaching Option: Secretarial Studies
(Transfer to Baruch College)

69-70 Credits required for A.A. Degree

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<tr>
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<tr>
<td>ENG 13</td>
<td>Fund. Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1½</td>
<td></td>
</tr>
<tr>
<td>* Modern Language</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>*STE 11 or 15</td>
<td>Stenography 1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>(Gregg or Pitman)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>*TYP 11</td>
<td>Typing 1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td>16½</td>
<td></td>
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SECOND YEAR

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<th>Course Title</th>
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<tbody>
<tr>
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<td>Art Appreciation</td>
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<tr>
<td>MUS 11</td>
<td>Music Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>½</td>
</tr>
<tr>
<td>* Modern Language</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ACC 13</td>
<td>Inter. Accounting</td>
<td>4</td>
</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ORI 41</td>
<td>Senior Orientation</td>
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### Second Year

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>MUS 11</td>
<td>Music Appreciation</td>
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<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>1½</td>
</tr>
<tr>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td><strong>MTH 17</strong></td>
<td>College Algebra or Analytic Geometry and Calculus</td>
<td>3-4</td>
</tr>
<tr>
<td>STE 13 or 17</td>
<td>Stenography</td>
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**Total** 16½-17½

### Fourth Semester

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
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<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ACG 11</td>
<td>Fundamental Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
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<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ORI 43</td>
<td>Senior Orientation</td>
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</table>

**Total** 17½

### Curriculum Pattern for H. S. Teaching Option: Retailing (Distributive Education)

(Transfer to Baruch College)

68-69 Credits required for A.A. Degree

---

### First Year

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fund. Composition</td>
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</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>½</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization</td>
<td>1</td>
</tr>
<tr>
<td><strong>MTH 17</strong></td>
<td>College Algebra or Analytic Geometry and Calculus</td>
<td>3-4</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
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</table>

**Total** 16½-17½

### Second Year

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>½</td>
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<tr>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting</td>
<td>4</td>
</tr>
<tr>
<td>RET 83</td>
<td>Retail Buying Techniques</td>
<td>3</td>
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</table>

**Total** 16½

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>½</td>
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<tr>
<td>PSY 21</td>
<td>Psychology</td>
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<td>Business Law</td>
<td>3</td>
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<td>RET 35</td>
<td>Retail Merchandising</td>
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<tr>
<td>RET 13</td>
<td>Textiles</td>
<td>4</td>
</tr>
<tr>
<td>ORI 42</td>
<td>Senior Orientation</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total** 18½

---

**Students who have taken Advanced Algebra in high school may be exempt from College Algebra by satisfactory performance on an examination given by the Department of Mathematics. In this instance, MTH 51, Analytic Geometry and Calculus, is required.**

*A student may choose one year of any one of the sciences of Biology, Chemistry or Physics which he has not had in high school.*

*A student who elects one year of that science which he has had in high school must take one semester of one of the other sciences at Baruch College as they require.*

*A student who elects Principles of Science (SCI 11 and 12) must take two semesters at Baruch College as described in its Curriculum Handbook.*
THE PROGRAM IN DATA PROCESSING

The field of Data Processing is rich in career opportunities. Business organizations and government agencies use computers to perform such essential functions as inventory control, sales forecasting, production scheduling, statistical analysis and accounting applications.

Trained data processing personnel are in demand because of the ever-growing use of computers. Starting salaries are excellent for both men and women who qualify in the areas of systems analysis, programming, computer operations and the use of unit record equipment.

This college offers an unusual opportunity to earn an Associate in Applied Science degree in Data Processing through a carefully planned two-year curriculum.

The Data Processing Curriculum provides a well-grounded program of:

- General Education in Liberal Arts and Sciences
- Business Background Preparation
- Data Processing Specialization in Machine Operations or in Programming and Systems.

Computers are machines capable of storing (remembering) instructions, and using these data to perform specific functions such as accepting, reorganizing, analyzing and furnishing at high speed the required specific information.

Programmers write the instructions for the machines. The program is a set of instructions written by trained personnel to tell the machines what to do and how to do it.

Systems Analysts are trained personnel who design and develop procedures through the application of Electronic Data Processing (EDP). They incorporate computers for the efficient organization and flow of data or information in suitable form for effective management and decision-making.

Curriculum Pattern for Data Processing
Machine Operations Option
68-69 Credits required for the A.A.S. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course No.</td>
<td>Course Title</td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fund. Composition</td>
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<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td>DAT 20</td>
<td>Punched Cards and Basic Wiring</td>
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<tr>
<td>DAT 40</td>
<td>Basic Computer Programming</td>
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Total: 17 1/2
## SECOND YEAR

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<th>Course Title</th>
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<tbody>
<tr>
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<td>Speech Fundamentals</td>
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</tr>
<tr>
<td></td>
<td>* Science</td>
<td>4</td>
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<tr>
<td>ACC 12</td>
<td>Fundamental Accounting 2</td>
<td>4</td>
</tr>
<tr>
<td>BUS 41</td>
<td>Business Statistics</td>
<td>3</td>
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<td>DAT 22</td>
<td>Machine Accounting 1</td>
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### Fourth Semester

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<td>ART 11</td>
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<td>MUS 11</td>
<td>Music Appreciation Elective</td>
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<td>FIN 31</td>
<td>Principles of Finance</td>
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<td>BUS 51</td>
<td>Business Organization and Management</td>
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<td>DAT 23</td>
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## Curriculum Pattern for Data Processing Programming and Systems Option

### FIRST YEAR

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<tbody>
<tr>
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<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
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<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
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<tr>
<td>MTH 17</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
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<td>Business Mathematics</td>
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### Second Semester

<table>
<thead>
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<tbody>
<tr>
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<td>Physical Education (choose one)</td>
<td>1/2</td>
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<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
<td>3</td>
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<tr>
<td>MTH 27</td>
<td>Math. for Data Processing</td>
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<tr>
<td>ACC 11</td>
<td>Fundamental Accounting 1</td>
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## SECOND YEAR

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<th>Course Title</th>
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<tbody>
<tr>
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<td>Speech Fundamentals</td>
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<td>ACC 12</td>
<td>Fundamental Accounting 2</td>
<td>4</td>
</tr>
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<td>BUS 41</td>
<td>Business Statistics</td>
<td>3</td>
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<tr>
<td>DAT 41</td>
<td>Advanced Programming</td>
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### Fourth Semester

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<th>Course Title</th>
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<tbody>
<tr>
<td>¶ ORI 46</td>
<td>Senior Orientation</td>
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<td>ART 11</td>
<td>Art Appreciation</td>
<td>1</td>
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<tr>
<td>MUS 11</td>
<td>Music Appreciation * Science</td>
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</tr>
<tr>
<td>ACC 14</td>
<td>Cost Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>DAT 42</td>
<td>Advanced Programming Systems Application</td>
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<tr>
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* BIO 18, Human Physiology; SCI 11, Principles of Science 1; or any other single semester science course. (BIO 11, CHM 11, or PHY 11, may not be taken to fulfill this requirement.)

¶ May be waived for Evening Session students with approval of curriculum adviser.
THE PROGRAMS IN CHEMICAL TECHNOLOGY

The demand for technicians in the field of Chemistry is ever increasing. Trained personnel are employed in theoretical and applied research, and in development, utilization and testing of the thousands of new compounds appearing every year—pharmaceuticals, plastics, metals, alloys, fuels, textiles and ceramics. A career in the chemical field may lead to employment in a laboratory, a plant, or an office. Opportunities are found both in the technical and commercial branches of the work as laboratory technicians, research assistants, or sales personnel.

The programs in Chemical Technology offered by Bronx Community College are designed to give the student a firm foundation in the theoretical and practical concepts of chemistry, physics, biology, and mathematics, preliminary to specialization. Students have, in the advanced laboratory courses, an opportunity to become acquainted with current practices and techniques of industry and to use modern industrial equipment. Knowledge of actual manufacturing practices is obtained through visits to industrial plants.

The curriculum in Chemical Technology offers three areas of specialization leading to the A.A.S. degree. These areas are: (1) Chemical Technology; (2) Pre-Pharmacy Option, leading to the third year of a College of Pharmacy, and (3) the Plastics Technology Option.

In the Pre-Pharmacy option students take a two-year course for which they receive complete, officially-approved credit on admission to the third year of the five-year pharmacy course at Colleges of Pharmacy such as those at Columbia and St. John's Universities. Typical vocational opportunities immediately upon graduation include laboratory technician, market researcher, pharmacist technician and research assistant. After further training and experience, a student may wish to pursue such occupations as pharmacist, chemical salesman, control analyst, laboratory supervisor, pilot-plant operator and production supervisor.

The Plastics Technology option is a career program which will prepare the student for work in the plastics industry as a plastics technician, injection molding machine operator, extruder operator, thermoforming machine operator, blow molding machine operator, calendaring operator, plastics printing and finishing operator, plastics fabricating and assembling operator, mold making technician, mold designing technician, plastics machine repair maintenance or plastic sales.

Students interested in a professional career in chemistry or chemical engineering should take the Liberal Arts and Sciences or the Engineering Science program leading to later concentration and specialization at a four-year college and graduate-professional school.
### CHEMICAL TECHNOLOGY

**1. Curriculum Pattern for the Chemical Technology Program**

#### 66 1/2 Credits required for A.A.S. Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ART 11</td>
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<td>ENG 14</td>
<td>Comp. &amp; Prose</td>
<td>5</td>
</tr>
<tr>
<td>MUS 11</td>
<td>Music Appreciation</td>
<td>3</td>
<td>HLT 91</td>
<td>Personal and Community Health</td>
<td>1</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
<td>CHM 22</td>
<td>General Chemistry and Qualitative Analysis</td>
<td>5</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
<td>MTH 16</td>
<td>Intro. College Math.</td>
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<td>HIS 11</td>
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<td>3</td>
<td>PHY 21</td>
<td>Technical Physics</td>
<td>4</td>
</tr>
<tr>
<td>CHM 11</td>
<td>College Chemistry</td>
<td>4</td>
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<td>MTH 11</td>
<td>Intro. College Math.</td>
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**SECOND YEAR**

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<th>Course No.</th>
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<th>Credit</th>
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<tbody>
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<td>CHM 32</td>
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<td>Quantitative Analysis</td>
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<td>Industrial Analysis</td>
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<td>Technical Physics</td>
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<td>CHM 44</td>
<td>Chemical Instrumentation</td>
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<td>CHM 46</td>
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* May be chosen from English, Speech, Music, Art, Social Studies, Modern Languages, or selected Business courses.

**2. Curriculum Pattern for Pre-Pharmacy Option**

#### 66 1/2 Credits required for A.A.S. Degree

<table>
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<tr>
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**SECOND YEAR**

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* May be chosen from English, Speech, Music, Art, Social Studies, or Modern Languages.

**The student who pursues this option in Chemical Technology and achieves the required index, may be accepted for admission to the third year of the pharmacy course at Columbia or St. John's Universities.**
### CHEMICAL TECHNOLOGY

#### 3. Curriculum Pattern for Plastics Technology

63½ Credits required for A.A.S. Degree

<table>
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<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
</tr>
<tr>
<td>CHM 15</td>
<td>Fundamentals of Modern Chemistry</td>
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</tr>
<tr>
<td>MEC 11</td>
<td>Engineering Graphics 1</td>
<td>2</td>
</tr>
<tr>
<td>PLS 11</td>
<td>Fundamentals of Plastics</td>
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<td>MTH 11</td>
<td>Intro. College Math. 1</td>
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<td>PLS 51</td>
<td>Plastic Processing 1</td>
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<td>PLS 55</td>
<td>Design of Plastics Products</td>
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<td>PLS 57</td>
<td>Fabrication 1</td>
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<td>SPH 11</td>
<td>Speech Fundamentals</td>
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<tr>
<td>PLS 32</td>
<td>Plastic Processing 2</td>
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<tr>
<td>PLS 36</td>
<td>Design of Plastics Products</td>
<td>2</td>
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<tr>
<td>PLS 38</td>
<td>Fabrication 2</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
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<tr>
<td>PLS 41</td>
<td>Reinforced Plastics</td>
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<tr>
<td>ART 11</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

#### THE PROGRAM IN ENGINEERING SCIENCE

(The first two years of the Engineering sequence.)

The Engineering Science program is designed for students with a special interest in engineering, architecture, or physical science. Scientists and engineers need rigorous preparation for their professions—especially in mathematics and basic science. The program in pre-engineering and pre-architectural studies requires that professionals in science and engineering be citizens of sound judgement, broad wisdom and knowledge of humanities. Thus, the curriculum includes a substantial proportion of courses in the humanities.

The curriculum is integrated with the typical Engineering curriculum; therefore, transfer is facilitated to four-year engineering colleges. Specific transfer arrangements have been made with the Schools of Engineering at The City College, Polytechnic Institute of Brooklyn and New York University. Transfer is also possible to other engineering schools, both in and out of the New York City area. Students are also well prepared to pursue study for the B.S. degree in physics and allied sciences.

The accompanying curriculum pattern, with slight modification, prepares the student for continuation in a program leading to a bachelor's degree in architecture. Qualified graduates of this Engineering Science
programs are assured entrance to the program in Architecture at The City College, or they may transfer to other schools of architecture.

Many careers are open to graduates of engineering colleges, schools of architecture, or four-year science courses, in such fields as:

<table>
<thead>
<tr>
<th>Engineering</th>
<th>Architecture</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeronautical</td>
<td>Architectural Engineering</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Aerospace</td>
<td>Engineering</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Chemical</td>
<td>City &amp; Regional Planning</td>
<td>Materials Science</td>
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<tr>
<td>Civil</td>
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<td>Meteorology</td>
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<tr>
<td>Electrical</td>
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<td>Nuclear Science</td>
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<tr>
<td>Industrial</td>
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<td>Oceanography</td>
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<tr>
<td>Mechanical</td>
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<tr>
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Curriculum Pattern for Engineering Science
(The first two years of the Engineering sequence)
64½ Credits Required for the A.A. Degree

<table>
<thead>
<tr>
<th><strong>FIRST YEAR</strong></th>
<th><strong>SECOND SEMESTER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course No.</strong></td>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td><strong>Course Title</strong></td>
<td><strong>Course Title</strong></td>
</tr>
<tr>
<td><strong>Credit</strong></td>
<td><strong>Credit</strong></td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>ART 11 Art Appreciation or 1</td>
<td>ENG 14 Comp. &amp; Prose 3</td>
</tr>
<tr>
<td>MUS 11 Music Appreciation</td>
<td>CHM 11 Chemistry 1 4</td>
</tr>
<tr>
<td>ENG 13 Fund. Composition 3</td>
<td>MTH 32 Analytic Geometry and Calculus 2 5</td>
</tr>
<tr>
<td>HLT 11 Intro. to Physical Education ½</td>
<td>PHY 32 Physics 2 4</td>
</tr>
<tr>
<td>HIS 11 History of Civilization 1 3</td>
<td>MEC 11 Engineering Graphics 1 2</td>
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<tr>
<td>PHY 31 Physics 1 4</td>
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<td>MTH 31 Analytic Geometry and Calculus 1 4</td>
<td><strong>Total 18</strong></td>
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<tr>
<td>ORI 15 Engineering Science Freshman Orientation 0</td>
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<table>
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<th><strong>FOURTH SEMESTER</strong></th>
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<td><strong>Course No.</strong></td>
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<td><strong>Course Title</strong></td>
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<td><strong>Credit</strong></td>
<td><strong>Credit</strong></td>
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<tr>
<td>-----------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>HIS 12 History of Civilization 2 3</td>
<td>SPH 11 Speech Fundamentals 2</td>
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<tr>
<td>MTH 35 Analytic Geometry and Calculus 3 5</td>
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<td>PHY 34 Analytical Mechanics 4</td>
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* Pre-Architecture students may omit MTH 34 (4 cr) and substitute General Education-Liberal Arts electives totaling at least 3 credits, permitting the degree to be granted at 63½ credits.

** Optional electives PHY 41, Electricity and Magnetism, recommended for electrical engineering students; PHY 51, Atomic and Nuclear Physics, recommended for mechanical and civil engineering students; PHY 61, Computer Methods and Programming, suggested as an elective for all engineering specialties.

**PROGRAMS IN ENGINEERING TECHNOLOGIES**

These curricula are intended primarily to prepare the student for immediate employment in a career of his choice in the electrical engi-
neering or mechanical engineering fields. A substantial portion of the credits taken is transferable to engineering programs, both at this college and others. Students who plan to continue their studies at a four-year college and eventually earn a baccalaureate degree should enroll in the Engineering Science curriculum (see page 33).

ELECTRICAL TECHNOLOGY

The program includes fundamentals of electric circuits, electronic current and digital circuits. Electives are available in specialized fields such as computers, servomechanisms and microwaves. Laboratory work is performed in well-equipped laboratories that reproduce conditions found in modern industry. Electronic technicians are needed to design, build, test and maintain complex electronic equipment such as computers, control systems, and medical devices.

The graduate is prepared to undertake the following jobs:
- Electrical Draftsman
- Electrical Inspector
- Industrial Salesman
- Studio Technician
- Research Laboratory Technician
- Technical Writer
- Components Tester
- Audio and High Fidelity Specialist

With further training and experience:
- Product Designer
- Test Engineer
- Field Engineer
- Development Engineer
- Quality Control Supervisor
- Test Laboratory Supervisor
- Teacher of Industrial Arts
- Technical Institute Teacher
- Production Engineer

Curriculum Pattern for Electrical Technology
72½ Credits required for the A.A.S. Degree

FIRST YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
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<td>HLT 11</td>
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<td>MTH 17</td>
<td>College Algebra</td>
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</tr>
<tr>
<td>PHY 21</td>
<td>Technical Physics I</td>
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<tr>
<td>ELC 11</td>
<td>Intro. to Elec. Circuits</td>
<td>3</td>
</tr>
<tr>
<td>MEC 11</td>
<td>Engineering Graphics I</td>
<td>2</td>
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SECOND YEAR

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<tbody>
<tr>
<td>ENG 14</td>
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</tr>
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<td>HLT 91</td>
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<td>Communic. Electronics</td>
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<td>Electric Product Design and Measurements</td>
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<th>Course Title</th>
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<td>SPH 11</td>
<td>Speech Fundamentals</td>
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<td>ELC 41</td>
<td>Elec. Machines and Power</td>
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<td>Electronics Project Lab.</td>
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<td>Pulse and Digital Circuits</td>
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<td>ELC 47</td>
<td>E.E. Tech. Problems</td>
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Curriculum Pattern for Electrical Technology
72½ Credits required for the A.A.S. Degree

FIRST YEAR

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<thead>
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<th>Course Title</th>
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<tbody>
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<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1½</td>
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<td>History of Civilization I</td>
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<td>MTH 17</td>
<td>College Algebra</td>
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SECOND YEAR

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<tr>
<td>ELC 31</td>
<td>Networks and Trans. Lines</td>
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MECHANICAL TECHNOLOGY

Mechanical Technology covers the design, production, installation and operation of machines, tools and all types of metal products and devices. It is concerned with devices and machines that convert the chemical energy stored in coal, oil, gas and nuclear fuels into mechanical power.

The curriculum in Mechanical Technology is intended for high school graduates who have an interest in a mechanical field and who have aptitude in science and mathematics. Laboratory work is planned to reproduce the actual conditions of industry. The equipment is of industrial caliber and the procedures duplicate, as far as possible, current practice.

A Mechanical Technology student may transfer to the Engineering Science program during his stay at Bronx Community College, or after he has received his A.A.S. degree. Many of the credits are transferable and the training at the Mechanical Technician's level provides a good basis for later successful study in the Engineering courses.

The graduate is prepared to undertake the following jobs:
- Mechanical Technician
- Draftsman
- Heat Treater
- Inspector
- Technical Sales Representative
- Laboratory Technician
- Materials Tester
- Instrumentation Technician
- Technical Writer

With further training and experience:
- Designer
- Metallurgist
- Quality Control Engineer
- Sales Engineer
- Test Engineer
- Production Supervisor
- Plant Engineer
- Materials Specialist
- Teacher of Industrial Arts

Curriculum Pattern for Mechanical Technology

72½ Credits required for A.A.S. Degree

**FIRST YEAR**

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<td>Fund. of Modern Chemistry</td>
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<td>MEC 12</td>
<td>Engineering Graphics 2</td>
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<td>Engineering Mfg. Processes</td>
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**FOURTH SEMESTER**

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<td>SPH 11</td>
<td>Speech Fundamentals</td>
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<td>HIS 12</td>
<td>History of Civilization 2</td>
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<td>Prod. Proc. and Meas.</td>
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35
THE PROGRAM IN LIBERAL ARTS AND SCIENCES

The liberal arts and sciences develop intellectual competence and encourage independence in the pursuit of knowledge. They inculcate dedication to the search for truth and to the service of humanity, making citizens more responsive and responsible.

Required and elective courses in the liberal arts and sciences stress the values by which men live, esthetics, language, literature, fine and performing arts, social studies, the laws of nature, speech, philosophy, psychology, mathematics, and the cultivation of a sound body.

A realistic liberal or humanistic education prepares students to advance quickly. For example, the Associate in Science (A.S.) degree, which carries options in biology, chemistry, mathematics, and physics, provides the basic courses to major in science and mathematics at a four-year college.

After successfully completing the curriculum and earning an A.A. or A.S. degree in Liberal Arts and Sciences, students usually transfer to the third year of a senior college to prepare for a creative career in one of the following fields:

Acting
Biology
Business Administration
Chemistry
Clergy
Dentistry
Education
Journalism
Laboratory Research
Law
Library Science
Medicine
Physics
Psychology
Research
Science
Social Work
Statistics
Teaching
Theatre
Writing

Curriculum Pattern for Liberal Arts and Sciences (Transfer)
H. S. language continued in college

(Review or condition: Language 11, 12, or 13 may be required)
64 credits required for the A.A. Degree

<table>
<thead>
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<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>½</td>
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<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
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<td>Survey of Mathematics Science I—Choice of:</td>
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<td>CHM 11</td>
<td>Chemistry 1 or</td>
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<td></td>
</tr>
<tr>
<td>PHY 11</td>
<td>College Physics 1 or</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Principles of Science 1</td>
<td>4</td>
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<td>History of Civilization 2</td>
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Total 64

36
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<td>Speech Fundamentals</td>
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<td>Advanced Speech</td>
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<td>ENG 15</td>
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<td>ENG 16</td>
<td>Comp. &amp; Poetry</td>
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Curriculum Pattern for Liberal Arts and Sciences (Transfer)

New language in college
64 credits required for the A.A. degree

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<th>Course Title</th>
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<td>History of Civilization</td>
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<td>HIS 12</td>
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<td>or</td>
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<td>#SPH 12</td>
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<td>or</td>
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<td>Comp. &amp; Poetry</td>
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* Students planning to major in mathematics should substitute MTH 31 (4 credits); MTH 32, 33 (5 credits each). See, also, Mathematics Option for A.S. degree.
† Students desiring to take electives in art or music in the third or fourth semester may substitute ART 11 or MUS 11, completing HLT 91 in second year.
# Students majoring in science or mathematics may substitute five credits of their major for GOV 21 or ECO 21 (3 credits) and SPH 12 (2 credits).
‡ Electives to complete the required 64 credits may be selected from approved LA&S courses and the following Business and Commerce courses: ACC 11, 12, 13, 14; LAW 41, 47; FIN 31; BUS 41; RET 11, 14, 31, 33, 35, 41, 43; SEC 47, 48; DAT 11; STE 11*, 12*; TYP 11*, 12*. (*See Committee on Academic Standing Codification, LA&S Electives.)
**LIBERAL ARTS AND SCIENCES**

**Curriculum Pattern for Liberal Arts and Sciences (Transfer)**

1. **Biology Option**
   **65-67 Credits required for the A.S. Degree**

### First Semester

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<td>HIS 11</td>
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<td>*MTH 17</td>
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**Total 15½-16½**

### Second Semester

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<td>Analytic Geometry and Calculus 1</td>
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<td>MTH 32</td>
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<td>Art Appreciation</td>
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**Total 16½-17½**

### Third Semester

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<td>Analytic Geometry and Calculus 3</td>
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<td>Organic Chemistry 1</td>
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<tr>
<td>PHY 11</td>
<td>College Physics 1</td>
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**Total 17**

### Fourth Semester

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<td>BIO 12</td>
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<tr>
<td>‡CHM 32</td>
<td>Organic Chemistry 2</td>
<td>4</td>
</tr>
<tr>
<td>PHY 12</td>
<td>College Physics 2</td>
<td></td>
</tr>
<tr>
<td>HLT 91</td>
<td>Personal and Community Health</td>
<td>1</td>
</tr>
<tr>
<td>‡</td>
<td>Elective</td>
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</tr>
</tbody>
</table>

**Total 16**

---

**Curriculum Pattern for Liberal Arts and Sciences (Transfer)**

2. **Chemistry Option**
   **64-67 Credits required for A.S. Option**

### First Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fund. Composition</td>
<td>3</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
</tr>
<tr>
<td>CHM 11</td>
<td>General College Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>*MTH 17</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MTH 31</td>
<td>Analytic Geometry and Calculus 1</td>
<td>4</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1½</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
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</table>

**Total 15½-16½**

### Second Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 14</td>
<td>Comp. &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>CHM 22</td>
<td>General Chemistry with Qualitative Analysis</td>
<td>5</td>
</tr>
<tr>
<td>MTH 31</td>
<td>Analytic Geometry and Calculus 1</td>
<td>4</td>
</tr>
<tr>
<td>MTH 32</td>
<td>Analytic Geometry and Calculus 2</td>
<td>4</td>
</tr>
<tr>
<td>MUS 11</td>
<td>Music Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td></td>
</tr>
</tbody>
</table>

**Total 16½-17½**
SECOND YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>**</td>
<td>Modern Language</td>
<td></td>
</tr>
<tr>
<td>MTH 32</td>
<td>Analytic Geometry and Calculus 2</td>
<td></td>
</tr>
<tr>
<td>**</td>
<td>Modern Language</td>
<td></td>
</tr>
<tr>
<td>CHM 32</td>
<td>Organic Chemistry</td>
<td></td>
</tr>
<tr>
<td>HLT 91</td>
<td>Personal and Community Health</td>
<td></td>
</tr>
<tr>
<td>**</td>
<td>Elective</td>
<td></td>
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<tr>
<td>**</td>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>15-16</td>
</tr>
</tbody>
</table>

† The third year of science will be either CHM 31, 32, Organic Chemistry; or PHY 11, 12, College Physics, to be selected with approval of the students' curriculum adviser.

* Students who have had Advanced Algebra must take MTH 31, Analytic Geometry and Calculus 1, and continue with MTH 32, 33.

§ Biology, BIO 11, or Physics, PHY 31, may be substituted with the approval of the curriculum adviser.

‡ To be chosen from social studies or humanities.

# The elective credits in science, humanities or social studies must be selected courses in these areas with the approval of the student's curriculum adviser. If the elective is a sixth semester of science, the courses must be from PHY 51, Atomic and Nuclear Physics; PHY 61, Computer Methods and Programming; MTH 54, Advanced Mathematics; MTH 55, Vector Calculus and Linear Algebra.

Language Requirements for Liberal Arts & Sciences A.S. Degree

For students who intend to continue the language studied in high school a placement examination upon admission is required. The language requirement is two semesters exclusive of any conditioned semesters. (See table below.) Recommended languages are: German, French, or Russian. For the B.S. degree, one or two additional semesters of language are usually required. (The student may study the additional semester of language in the summer session.)

<table>
<thead>
<tr>
<th>H.S. Language</th>
<th>Student Elects to</th>
<th>Must Take *</th>
<th>Degree Credit Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 3 years 1 language</td>
<td>Continue H.S. language</td>
<td>21 and 22</td>
<td>No credit for 11-13 if required by Placement Examination.</td>
</tr>
<tr>
<td>2) 3 years 1 language</td>
<td>Start new language 11</td>
<td>11 and 12</td>
<td>13, 21 and 22 may be taken as BCC electives.</td>
</tr>
<tr>
<td>3) 2 years 1 language</td>
<td>Continue H.S. language</td>
<td>13, 21 and 22</td>
<td>No credit for 13, an entrance condition.</td>
</tr>
<tr>
<td>4) 2 years 1 language</td>
<td>Start new language 11</td>
<td>11, 12, 13</td>
<td>No Credit for 11, an entrance condition.</td>
</tr>
</tbody>
</table>

* For the B.S. degree one or two additional semesters are usually required.
### Curriculum Pattern for Liberal Arts and Sciences (Transfer)
#### 3. Mathematics Option

#### 65-67 Credits required for the A.S. Degree

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fund. Composition</td>
<td>3</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
</tr>
<tr>
<td>*MTH 51</td>
<td>Analytic Geometry and Calculus 1</td>
<td>4</td>
</tr>
<tr>
<td>**</td>
<td>Science</td>
<td>4</td>
</tr>
<tr>
<td>HTL 11</td>
<td>Intro. to Physical Education</td>
<td>½</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
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<td><strong>Total 16½</strong></td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 14</td>
<td>Comp. &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>MTH 52</td>
<td>Analytic Geometry and Calculus 2</td>
<td>5</td>
</tr>
<tr>
<td>**</td>
<td>Science</td>
<td>4</td>
</tr>
<tr>
<td>MUS 11</td>
<td>Music Appreciation or</td>
<td>1</td>
</tr>
<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total 16½</strong></td>
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</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>§</td>
<td>Modern Language</td>
<td>4</td>
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<tr>
<td>MTH 33</td>
<td>Analytic Geometry and Calculus 3</td>
<td>5</td>
</tr>
<tr>
<td>**</td>
<td>Science</td>
<td>4</td>
</tr>
<tr>
<td>✤</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total 16</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>§</td>
<td>Modern Language</td>
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</tr>
<tr>
<td>MTH 34</td>
<td>Advanced Mathematics</td>
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<td>**</td>
<td>Science</td>
<td>4</td>
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<tr>
<td>HLT 91</td>
<td>Personal and Community Health</td>
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</tr>
<tr>
<td>✤</td>
<td>Elective</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td><strong>Total 16-17</strong></td>
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</tr>
</tbody>
</table>

* Students who have not completed Advanced Algebra are required to complete MTH 17, College Algebra, as the prerequisite to MTH 31, Analytic Geometry and Calculus 1.

** The two years of science requirements must be fulfilled from PHY 31, 32, 33 and 34, Physics 1, 2, 3, and Mechanics; or one year each of two of the following: BIO 11, 12; General Biology 1, 2; CHM 11, 12; General Chemistry 1, 2; PHY 11, 12, College Physics.

§ See Language Requirements for Liberal Arts & Sciences A.S. degree, page 39.

† These credits must be fulfilled from the area of Mathematics (MTH 35, Vector Calculus and Linear Algebra), humanities or social studies with the approval of the student's curriculum advisor.

‡ To be chosen from social studies or humanities.
Curriculum Pattern for Liberal Arts and Sciences (Transfer)

4. Physics Option

64-68 Credits required for A.S. Degree

**FIRST YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fund. Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHY 51</td>
<td>College Physics 1</td>
<td>4</td>
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<tr>
<td><strong>MTH 51</strong></td>
<td>Analytic Geometry and Calculus</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
<td></td>
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<td><strong>Total</strong></td>
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<td>16 1/2</td>
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**Second Semester**

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 14</td>
<td>Comp. &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>PHY 32</td>
<td>College Physics</td>
<td>4</td>
</tr>
<tr>
<td><strong>MTH 32</strong></td>
<td>Analytic Geometry and Calculus 2</td>
<td>5</td>
</tr>
<tr>
<td>MUS 11</td>
<td>Music Appreciation</td>
<td>5</td>
</tr>
<tr>
<td>ART 11</td>
<td>Art Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Education (choose one)</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td></td>
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**SECOND YEAR**

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
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<td></td>
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<tr>
<td>MTH 33</td>
<td>Analytic Geometry and Calculus 3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>PHY 33</td>
<td>College Physics 3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>SPH 34</strong></td>
<td>Mechanics</td>
<td>4</td>
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<td><strong>Total</strong></td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td><strong>Modern Language</strong></td>
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</tr>
<tr>
<td>HLT 91</td>
<td>Personal and Community Health</td>
<td>1</td>
<td></td>
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<tr>
<td><strong>SPH 41</strong></td>
<td>Electricity and Magnetism</td>
<td>3</td>
<td></td>
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<tr>
<td>+ Elective</td>
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<tr>
<td>+ Elective</td>
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<td>14-15</td>
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</tbody>
</table>

*Students who have not completed Advanced Algebra are required to complete MTH 17, College Algebra, as the prerequisite to MTH 51, Analytic Geometry and Calculus 1.*

**See language requirements for Liberal Arts & Sciences A.S. degree, page 39.**

§With the permission of his curriculum advisor, a student may substitute General Chemistry 1, 2 for either PHY 34 or PHY 41, and thereby also fulfill the science-humanities elective.

†To be chosen from science, humanities or social studies, with approval of curriculum advisor. If the elective is a sixth semester of science, the courses must be from PHY 51, Atomic and Nuclear Physics; PHY 61, Computer Methods and Programming; MTH 34, Advanced Mathematics; MTH 35, Vector Calculus and Linear Algebra.
THE PROGRAM IN MEDICAL LABORATORY TECHNOLOGY

The advance of scientific knowledge in the field of medicine has multiplied the need for personnel trained in such areas as X-ray, hematology, serology, histology, and biochemistry. Opportunities for service and employment are plentiful for technicians and medical research assistants, in private or government offices, hospitals, laboratories and clinics, research divisions of drug and chemical companies, and in private and public educational and research institutions.

Training in biological and chemical science prepares the student for immediate employment. The Medical Laboratory Technology curriculum is a career program in which the student earns the A.A.S. degree. In addition to taking general education courses, the student has an opportunity to work in up-to-date, newly-equipped laboratories and hospitals to gain extensive experience in the performance of a medical laboratory technologist's duties.

Students will perform the chemical, cytological, bacteriological, histological and other medical laboratory procedures used in the detection, diagnosis and treatment of disease. Such work demands knowledge and skill gained by careful and devoted preparation.

Curriculum Pattern for Medical Laboratory Technology

65½ Credits required for the A.A.S. Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 12</td>
<td>Fund. Composition</td>
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</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1½</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
</tr>
<tr>
<td>BIO 15</td>
<td>Zoology</td>
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<tr>
<td>CHM 11</td>
<td>Chemistry 1</td>
<td>4</td>
</tr>
<tr>
<td>MTH 17</td>
<td>College Algebra</td>
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<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 14</td>
<td>Comp. &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Personal and Community Health</td>
<td>1</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
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<td>Mathematical Analysis</td>
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</tr>
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<td>BIO 25</td>
<td>Anatomy and Physiology 1</td>
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</tr>
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<td>CHM 12</td>
<td>Chemistry 2</td>
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<tr>
<td></td>
<td>Total</td>
<td>18</td>
</tr>
</tbody>
</table>

THE PROGRAM IN NURSING

Students in the full-time Nursing program become nurses after two academic years of study. Qualified, fully matriculated students attend.
Bronx Community College tuition-free and have a choice of living in the new Nursing Center at the Bronx Municipal Hospital Center, located at Pelham Parkway and Eastchester Road in the Bronx, or they may live at home. Dormitory facilities and meals are available at no cost to the student, with complete maintenance and health services. In addition, Nursing students receive a monthly scholarship grant from the City of New York to help defray their transportation, books, and miscellaneous expenses. Students who win New York State Regents' Scholarships may receive them at Bronx Community College.

Graduates of the Nursing program receive the A.A.S. degree and are eligible to take the R.N. Licensure Examination given by the State of New York. Students who achieve a 2.5 or better scholastic index upon graduation are eligible to enter a senior institution within City University to continue study for a baccalaureate degree in Nursing.

Members of the faculty of the College's Department of Nursing offer instruction and guidance in clinical experience at Montefiore, Bronx-Lebanon, Lincoln, Veterans' Administration, Bronx State Hospitals, and at the Bronx Municipal Hospital Center. Students enjoy supplementary experience through arrangements with other community agencies, such as nursery schools, nursing homes, public health agencies, home care programs and day care centers.

The Nursing Curriculum is registered with, and approved by, the New York State Department of Education, Division of Professional Education. The program is accredited by the National League for Nursing.

The Bronx Municipal Hospital Center includes the Abraham Jacobi, Nathan B. VanEtten Hospitals, & The Albert Einstein College of Medicine of Yeshiva University.

Curriculum Pattern for Nursing

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>English Composition I</td>
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<tr>
<td>Speech Fundamentals</td>
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<td>Intro. to Physical Education</td>
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<td>Psychology</td>
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</tr>
<tr>
<td>Anatomy &amp; Physiology</td>
<td>4</td>
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<tr>
<td>Nursing 1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17 ½</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of Civilization 1</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Science</td>
<td>4</td>
</tr>
<tr>
<td>Nursing 3</td>
<td>10</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comp. &amp; Prose</td>
<td>3</td>
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<tr>
<td>Physical Education (choose one)</td>
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<td>Bacteriology</td>
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</tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>Music Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>History of Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Nursing 4</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>
THE PROGRAM IN PERFORMING ARTS-MUSIC

The renaissance of the arts in our nation, the development of the Lincoln Center complex in New York City, and the grants made available by the Ford Foundation and the federal government are evidences of a national concern with the arts, including Music. There is a growing need for musicians, and especially music teachers. The employment outlook in music education, especially for people who are well qualified at both musicians and teachers, is bright. Graduates with the Bachelor of Music degree will be prepared to be orchestra or ensemble instrumentalists, choral or ensemble vocalists, and teachers of music in private or public institutions. They may serve in schools and in community centers in the music and performing arts industries including radio, theater, broadcasting and telecasting.

Students can earn an Associate in Applied Science degree in Music in a two-year program, tuition free, and continue at the New York College of Music to earn a Bachelor of Music degree in an additional two years.

The first two years of the program are offered at Bronx Community College, tuition free for matriculated students, with private lessons and group music experience amounting to eight credits offered by the New York College of Music, at no cost to the student. Students are enrolled at Bronx Community College where they take sixty credits, with eight credits taken concurrently at the New York College of Music, to meet the requirements for the Associate Degree.

The New York College of Music provides the third and fourth year of the baccalaureate program for those students who successfully complete the Music curriculum and obtain the Associate in Applied Science degree at Bronx Community College. During the freshman and sophomore years the New York College of Music provides at no cost to the student private lessons and experience in performing groups. In the junior and senior years, students are helped by the New York College of Music to meet their tuition costs; no student will be denied the opportunity to continue to the baccalaureate for lack of ability to pay tuition.

In addition to regular requirements, students must meet special standards in musical aptitude and ability, as well as demonstrate proficiency in vocal or instrumental areas, to be determined by tests, audition and interviews conducted by faculty of Bronx Community College and the New York College of Music.
## Curriculum for Performing Arts-Music
### 68 Credits required for A.A.S. Degree

### FIRST YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fund. Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Civilization 1</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1½</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>MUS 21</td>
<td>Choral Perform. 1</td>
<td>1</td>
</tr>
<tr>
<td>MUS 31</td>
<td>Orchestral Perform. 1</td>
<td>1</td>
</tr>
<tr>
<td>MUS 41</td>
<td>Theory 1</td>
<td>2</td>
</tr>
<tr>
<td>MUS 51</td>
<td>Ear Training 1</td>
<td>1</td>
</tr>
<tr>
<td>MUS 61</td>
<td>Keyboard 1</td>
<td>1</td>
</tr>
<tr>
<td>MUS 71</td>
<td>Sec. Piano 1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>16½</strong></td>
</tr>
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</table>

### SECOND YEAR

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>SCI 11</td>
<td>Science 1</td>
<td>4</td>
</tr>
<tr>
<td>HLT 23-81</td>
<td>Physical Education</td>
<td>1½</td>
</tr>
<tr>
<td>ART 21</td>
<td>Art Appreciation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 23</td>
<td>Choral Perform. 3</td>
<td>1</td>
</tr>
<tr>
<td>MUS 33</td>
<td>Orchestral Perform. 3</td>
<td>1</td>
</tr>
<tr>
<td>MUS 85</td>
<td>Private Instruction 3</td>
<td>2</td>
</tr>
<tr>
<td>MUS 43</td>
<td>Theory 3</td>
<td>2</td>
</tr>
<tr>
<td>MUS 53</td>
<td>Ear Training 3</td>
<td>1</td>
</tr>
<tr>
<td>MUS 63</td>
<td>Keyboard 3</td>
<td>1</td>
</tr>
<tr>
<td>MUS 96</td>
<td>Chamber Chorus 2</td>
<td>1</td>
</tr>
<tr>
<td>MUS 92</td>
<td>Chamber Orchestra 2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>17½</strong></td>
</tr>
</tbody>
</table>

*To be taken, if needed, to meet the degree requirements. Otherwise, may be used as elective credits; or another elective may be substituted.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 14</td>
<td>Comp. &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Personal and Community Health</td>
<td>1</td>
</tr>
<tr>
<td>MUS 22</td>
<td>Choral Perform. 2</td>
<td>1</td>
</tr>
<tr>
<td>MUS 32</td>
<td>Orchestral Perform. 2</td>
<td>2</td>
</tr>
<tr>
<td>MUS 42</td>
<td>Theory 2</td>
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</tr>
<tr>
<td>MUS 52</td>
<td>Ear Training 2</td>
<td>1</td>
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<tr>
<td>MUS 62</td>
<td>Keyboard 2</td>
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</tr>
<tr>
<td>MUS 72</td>
<td>Sec. Piano 2</td>
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</tr>
<tr>
<td>MUS 95</td>
<td>Chamber Chorus</td>
<td>1</td>
</tr>
<tr>
<td>MUS 91</td>
<td>Chamber Orchestra</td>
<td>1</td>
</tr>
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<td><strong>Total</strong></td>
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</table>

### THIRD SEMESTER

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCI 11</td>
<td>Science 1</td>
<td>4</td>
</tr>
<tr>
<td>HLT 23-81</td>
<td>Physical Education (choose one)</td>
<td>1½</td>
</tr>
<tr>
<td>MUS 23</td>
<td>Choral Perform. 3</td>
<td>1</td>
</tr>
<tr>
<td>MUS 33</td>
<td>Orchestral Perform. 3</td>
<td>1</td>
</tr>
<tr>
<td>MUS 43</td>
<td>Theory 3</td>
<td>2</td>
</tr>
<tr>
<td>MUS 53</td>
<td>Ear Training 3</td>
<td>1</td>
</tr>
<tr>
<td>MUS 63</td>
<td>Keyboard 3</td>
<td>1</td>
</tr>
<tr>
<td>MUS 96</td>
<td>Chamber Chorus 2</td>
<td>1</td>
</tr>
<tr>
<td>MUS 92</td>
<td>Chamber Orchestra 2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>17½</strong></td>
</tr>
</tbody>
</table>

### FOURTH SEMESTER

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 13</td>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MUS 24</td>
<td>Choral Perform. 4</td>
<td>1</td>
</tr>
<tr>
<td>MUS 34</td>
<td>Orch. Perform. 4</td>
<td>1</td>
</tr>
<tr>
<td>MUS 86</td>
<td>Private Instruction 4</td>
<td>2</td>
</tr>
<tr>
<td>MUS 44</td>
<td>Theory 4</td>
<td>2</td>
</tr>
<tr>
<td>MUS 54</td>
<td>Ear Training 4</td>
<td>1</td>
</tr>
<tr>
<td>MUS 64</td>
<td>Keyboard 4</td>
<td>1</td>
</tr>
<tr>
<td>MUS 81</td>
<td>Ensemble 1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

*To be taken, if needed, to meet the degree requirements. Otherwise, may be used as elective credits; or another elective may be substituted.
THE PROGRAM IN X-RAY TECHNOLOGY

The advance of scientific knowledge in the field of medicine and the increasing services offered in hospitals and health centers has multiplied the need for the competent X-Ray technologist. The well-qualified technologist will find ready employment in private or government agencies, hospitals, laboratories, and clinics, and in private and public educational and research institutions.

Those who aspire to be a member of a health team working with doctors and nurses, and who wish to play an important role in the prevention and conquest of disease should plan to become X-Ray technologists. The primary responsibility will be to assist doctors and radiologists in performing the many necessary X-Ray procedures which modern medicine requires in the protection and promotion of good health.

 Upon graduation from Bronx Community College with an Associate in Applied Science degree, you can help fill this great demand for X-Ray technologists, Supervisors of X-Ray technologists, Technical Representatives, and Research X-Ray technologists.

Students are encouraged to pursue further studies in order to prepare themselves for positions as teachers, hospital administrators, administrators in private laboratories and research institutions.

Curriculum Pattern for X-Ray Technology
67½ Credits required for the A.A.S. Degree

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>SECOND SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td>BIO 21</td>
<td>Human Anatomy and Physiology</td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fund. Composition</td>
</tr>
<tr>
<td>MTH 11</td>
<td>Intro. College Math.</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
</tr>
<tr>
<td>XRY 11</td>
<td>X-Ray Technology</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
</tr>
<tr>
<td>CLN 11</td>
<td>Clinical Internship</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16½</td>
</tr>
</tbody>
</table>

| **SECOND YEAR** | **Fourth Semester** |
| **Third Semester** | **Course No.** | **Course Title** | **Credit** | **Course No.** | **Course Title** | **Credit** |
| SOC 21 | Sociology | 3 | HLT 91 | Personal and Community Health | 1 |
| HIS 11 | History of Civilization | 3 | HIS 12 | History of Civilization | 3 |
| ART 11 | Art Appreciation | 1 | XRY 14 | X-Ray Technology | 4 |
| PHY 82 | Radiation Physics | 4 | XRY 15 | X-Ray Technology | 5 |
| XRY 13 | X-Ray Technology | 6 | CLN 15 | Clinical Internship | 5 |
| CLN 14 | Clinical Internship | 1 | **Total** | 14 |
| **Total** | 18 |

| **Summer** | **CLN 16** | **Clinical Internship** | **1** |
TRANSFER POLICIES: FROM BRONX COMMUNITY COLLEGE TO A SENIOR COLLEGE

In planning to transfer to a senior college, in or out of City University, the student is advised of the following procedures and requirements.

1. For students matriculated prior to March 1, 1967, an Associate in Arts Degree in a Transfer curriculum (i.e. Liberal Arts and Sciences, Engineering Science, Business Administration, Business Teaching) with minimum scholastic index of 2.00 makes possible transfer to the third year of a senior college in City University as a matriculated student, on probation, unless the index is 2.50 or better. Students who were enrolled and matriculated in a Transfer Program on or after March 1, 1967, and who receive an Associate in Arts or an Associate in Science Degree will be admitted to the third year of a senior college in City University. Special conditions of transfer to specific senior colleges of pharmacy apply.)

2. Graduates of Career Programs at Bronx Community College need an index of 3.00 to be admitted as matriculated students to a senior college in the City University. (Only certain courses will be credited toward the baccalaureate.)

3. All credit and non-credit courses taken at Bronx Community College may be incorporated in the calculations of the scholastic index by the receiving college.

4. All courses and grades taken at Bronx Community College appear in the student's Bronx Community College permanent record and transcript.

STUDENTS ON PERMIT FROM OTHER COLLEGES

Students from other colleges are advised to secure written permission from their home colleges before applying to register for any courses at BCC.

City University of New York associate degree matriculants with permits from their Registrar may, subject to prior approval of the BCC Registrar, register at a time reserved for BCC Matriculants in the Registration Schedule. However, baccalaureate matriculants from City University senior colleges will be required to pay non-matriculant fees.

Students with permits from colleges not of City University must all register as non-matriculants regardless of status in their own colleges.

COUNSELING AND ADVISEMENT FOR REGISTRATION

Advisers from all curricula offered in the College are available during the registration period. All students must have their programs approved by Faculty Advisers either before or during Registration. Counselors of the Department of Student Personnel are available by appointment throughout the semester. Appointments to see Counselors may be made at the Office of the Counseling and Advisement Program at the Concourse Faculty Office.
**STUDENT ACTIVITIES**

The College encourages student participation in the organization and operation of its cultural, social and athletic clubs and organizations, chartered through the Day and Evening Student Councils, and supported by the BCC Association, Inc.

The life of the College includes student publications, musical, artistic and dramatic events and other cultural activities.

Independent and creative thinking are fostered in these activities. Student participation helps to develop initiative, leadership, loyalty, social poise and community harmony. Faculty advisers can be called on to help further the objectives of the organizations.

**FINANCIAL AID AND LOAN APPLICATIONS**

Students in need of financial assistance must arrange an appointment with a representative of the Committee on Financial Aid to Students before registration. Appointments may be made by calling the Department of Student Personnel between 10 A.M. and 4 P.M. Applications for bank loans requiring certification of attendance or admission will be processed by the Registrar only if such forms are received via the Committee on Financial Aid to Students.

**TUITION AND OTHER FEES**

All fees must be paid in full at the time of registration. Where tuition fees are reduced by place of residence, legal proof of such residence may be required to establish eligibility. (Any arrangements for loans or applications for loans or grants must be completed in advance of registration.)

**GENERAL FEES**

(Payable by all students—matriculated and non-matriculated.)

<table>
<thead>
<tr>
<th>1. Full-time students (12 or more credits)</th>
<th>$25.00/Sem.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Includes registration, library, laboratory, audio-laboratory, breakage, malpractice insurance, student activities and graduation fees.)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Part-time students (fewer than 12 credits)</th>
<th>$13.00/Sem.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Includes registration, library, laboratory, audio-laboratory, breakage, student activities, and graduation fees.)</td>
<td></td>
</tr>
</tbody>
</table>

**SPECIAL FEES**

(For all students—matriculated and non-matriculated.)

<table>
<thead>
<tr>
<th>1. Application for Admission</th>
<th>$6.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. This fee is payable to the University Application Processing Center for applications processed by that office.</td>
<td></td>
</tr>
<tr>
<td>b. This fee is paid to Bronx Community College by applicants processed by the college.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Transcript and Duplicate Record</th>
<th>$2.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>(No charge for transcripts sent to colleges of the City University of New York.)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Make-up and Special Examinations</th>
<th>$5.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Maximum fee of $15.00 for three or more examinations during one semester.)</td>
<td></td>
</tr>
</tbody>
</table>

| 4. Late Registration | $5.00 |

| 5. Change of Program (Schedule of Classes) | $5.00 |

| 6. Duplicate I.D. Card Fee | $2.00 |

| 7. Duplicate Record | $1.00 |
ULTION & FEES (con'd)

ULTION FEES

Matriculated Students—Full-time (12 or more credits)

Residents of New York City: Free Tuition*

Non-Residents of New York City:
  b. Residents of N.Y. State without Certificate of Residency $400/Sem.

In the Nursing program, regardless of residence Free Tuition

(Nursing matriculants who are residents of New York State, out-
side of New York City, must file a Certificate of Residence with the
Business Office.)

Matriculated Students—Part-time (fewer than 12 credits)

Residents of New York City: Free Tuition**

Non-Residents of New York City:
  a. Residents of N.Y. State with Certificate of Residency $10/contact hr.
  b. Residents of N.Y. State without Certificate of Residency $20/contact hr.

In the Nursing program, regardless of residence Free Tuition

(Nursing matriculants who are residents of New York State, out-
side of New York City, must file a Certificate of Residence with the
Business Office.)

Non-Matriculated Students

Residents of New York State $15/contact hr.

Non-Residents of New York State $20/contact hr.

OTE: Non-matriculants who are residents of New York State outside of New York
City may not register without Certificate of Residence on file in the Business
Office.

Matriculated Students—Full-Time

For all courses up to 3 credits beyond the degree requirement.

Exceptions:
1. For any student who has received one Associate Degree from any college of the City
   University, either wholly or partially tuition free, $200.00 per semester.
2. For a student who has commenced work on an Associate Degree and has changed
   his degree objective more than once, $200.00 per semester.
3. A student exceeding by more than 3 credits earned the number of credits re-
   quired for a degree, $15 per contact hour for those credits in excess of 3 above
   the degree requirement.

* Matriculated Students—Part Time

For all courses up to 3 credits beyond the degree requirement.

Exceptions:
1. A student who has received one Associate Degree from any college of the City
   University, either wholly or partially tuition free—$10 per contact hour.
2. A student who has commenced work on an Associate Degree and has changed
   his degree objective more than once, $10 per contact hour.
3. A student exceeding by more than 3 credits earned the number of credits re-
   quired for a degree, $15 per contact hour for those credits in excess of 3 above
   the degree requirement.

TO GET INFORMATION

dress all inquiries to:
BRONX COMMUNITY COLLEGE
120 East 184 Street
Bronx, New York 10468
Phone: (212) 933-7000
OFFICERS OF ADMINISTRATION

James A. Coltson, Ph.D., LL.D., L.H.D., Litt. D. .................. President
Morris Meister, Ph.D., Sc.D. ........................................ President Emeritus
Bernard P. Corbman, Ed.D. ............................................ Dean of Faculty
Daniel S. McGrath, Jr., M.A. ......................................... Dean of Administration
Clement M. Thompson, Ph.D. ........................................... Dean of Students
Manuel Stillerman, M.S.E.E., P.E. ................................. Dean of Evening and Continuing Education

Henry F. White, Ph.D. .................................................... Dean of Summer Session
Morton Rosenstock, Ph.D. ............................................... Associate Dean of Faculty
Paul Rosenfeld, M.A. ..................................................... Associate Dean of Administration
Richard Kor, M.S., M.A. ................................................. Assistant Dean of Administration
Vera F. Minkin, Ed.D. ..................................................... Associate Dean of Students
Carl Saueracker, M.S. ..................................................... Assistant Dean of Students
Peter J. Caffrey, M.A. ................................................... Assistant Dean of Evening and Continuing Education
Seymour Reisin, M.Ed. .................................................... Assistant to the Dean of Evening and Continuing Education

Herman Stein, M.A. ....................................................... Assistant Dean of Summer Session
John E. D'Andrea, M.S. in Ed. .......................................... Registrar and Admissions Office
Joseph E. Berman, B.S. ................................................... Fiscal Office
Beatrice Perlmutter, Ed.D., R.N. ......................................... Administrator of Nursing Center
Helen Kelberman, M.S. ................................................... Coordinator of College Discovery Program
Max Horn, M.A. ............................................................. Assistant to the President
Sharlene Schop, B.A. ..................................................... Public Information Office
William Woolfson, M.S. in Ed. .......................................... Coordinator of Special College Activities

Norman Eagle, Ed.D. ...................................................... Coordinator of Institutional Research
Mildred Kraft, B.A. ........................................................ Associate Registrar
Harvey Erdsneker, M.S. in Ed. .......................................... Assistant Registrar
Philip Iannelli, B.A. ...................................................... Assistant Registrar
Michelle Pavy, B.S. ........................................................ Assistant Registrar

ADMINISTRATIVE OFFICE HOURS:

Monday through Friday ................................................. 9 a.m.-5 p.m
Saturday, Sunday and Official Holidays ................................. Close
Summer Hours .............................................................. 9 a.m.-4 p.m

Evening and Continuing Education Division:

Monday through Thursday ............................................. 9 a.m.-10:30 p.m
Friday ................................................................. 9 a.m.-5 p.m