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The program and requirements set forth in this bulletin are necessarily subject to change without notice at any time at the discretion of the administration.
ACADEMIC CALENDAR 1970-1971

1970 FALL SEMESTER

September 1, 2, 4, 11  Pre-class orientation
September 7  No classes—Labor Day
September 3, 8, 9, 10  Registration*
September 11  No classes (day)—Faculty Conference
September 14  First day of classes
September 25  Last day for students to file applications for make-up examination for the resolution of Spring 1970 K grades
September 30  No classes (evening only)—Rosh Hashana
October 1-2  No classes (day and evening)—Rosh Hashana
October 10  No classes—Yom Kippur
October 17  Make-up examination for resolution of Spring 1970 K grades
October 20  Last day for resolution of K, L grades of Summer 1970 and Spring semesters
October 20  No classes (day and evening)—Faculty Conference
October 21-November 3  No classes—Pre-Election Recess
November 20  Last opportunity to withdraw officially from classes without penalty regardless of academic standing in class, but subject to approval of grade of J by instructor
November 26  No classes (day and evening)—Thanksgiving Day
December 25-January 3  No classes (day and evening)—Winter Recess
December 28  Last day for former BCC students to file applications for readmission for the Spring 1971 semester
January 14  Last day of classes
January 18-22  Final examinations

* Hours of registration will be announced in the Schedule of Classes which will be available well in advance of each semester
1971 SPRING SEMESTER

January 25-29  Pre-class orientation session
January 25, 26, 27, 28  Registration*
February 1  First day of classes
February 15  No classes (day and evening)—Washington's Birthday
February 19  Last day for students to file application for make-up examinations for resolution of Fall 1970 K grades
March 6  Make-up examinations for resolution of Fall 1970 K grades
March 15  Last day for resolution of K, L grades of Fall 1970 semester
March 18  No classes (day and evening)—Faculty Conference
March 25  Last opportunity to withdraw officially from classes without penalty regardless of academic standing in class, subject to approval of grade of J by instructor
April 3-11  No classes—Spring Recess
May 14  Last day for former BCC students to file applications for readmission for Summer 1971 semester
May 1, 8, 15 (tentative)  Placement examinations for new matriculated students (Fall 1971 semester)
May 17  Last day of classes
May 18  No classes—Pre-examination recess
May 19-25  Final examinations
June 2  Commencement

1971 SUMMER SESSION (tentative)

June 7-11  Registration
June 14  First day of classes
July 5  No classes—Independence Day
July 23  Last day of classes
September 11  Make-up examination for resolution of Summer 1971 K grades

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

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 its 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. 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 fifteen. In November, 1961, the College was accredited by the Middle States Association of Colleges 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 and accredited by the Middle States Association in November, 1966, as part of the accreditation of the entire City University.

By September, 1970, the College was serving 4,200 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 was completed in 1967. The three-story building houses Plastics Technology laboratories and Micro-Electronics equipment. Additional classroom and office facilities have been opened near the main building, including the Jerome Avenue Center and the Fordham Center.

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 construction 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 10,000 part-time students, to enable the College to serve both the needs of future generations of students and the community as a cultural center.
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 58-92.

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, Management

2. Business Teaching
   - Transfer Program—A.A. Degree for transfer to Baruch, Hunter or Lehman College of The City University of New York
   - For students planning to teach Accounting or Retailing on the secondary level

3. Business (Career)
   - Career Program—A.A.S. Degree
   - Options: Accounting, Retail Business Management, Data Processing (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. Education Associate
   - Career or Transfer Program—A.A.S. Degree

6. Engineering Science
   - Transfer Program—A.A. Degree

7. Electrical Technology
   - Career or Transfer Program—A.A.S. Degree

8. Mechanical Technology
   - Career or Transfer Program—A.A.S. Degree

Liberal Arts and Sciences

9. Transfer Program—A.A. Degree
   - Transfer Program—A.S. Degree

10. Medical Laboratory Technology
    - Career Program—A.A.S. Degree

11. Nursing
    - Career or Transfer Program—A.A.S. Degree

12. Performing Arts-Music
    - Transfer or Career Program—A.A.S. Degree

13. Secretarial Studies
    - Career Program—A.A.S. Degree (Executive Secretarial, Legal Secretarial, Medical Secretarial Assistant, School Secretarial)
    - Transfer Program—A.A. Degree for transfer to Baruch, Hunter or Lehman College for students planning to teach Secretarial Studies on the secondary level
DIVISION OF EVENING AND CONTINUING EDUCATION
Dean of Evening and Continuing Education: Dr. Manuel Stillerman
Associate Dean of Evening Education: Dr. Gloria L. Hobbs
Coordinator of Community Service Programs: Mr. Seymour Reisin

EVENING EDUCATION

The Division of Evening and Continuing Education is concerned with education for students in the Evening Division, community service programs, and continuing education. The evening faculty members are either full-time members of the Bronx Community College faculty or competent, qualified, experienced men and women chosen to teach in their field of specialization. Courses in various curricula are offered during the evening as in the day. Also, adults are provided with individual courses for career advancement and cultural growth on both a credit and non-credit basis. College credit courses offered in the evening may be applied toward a Bronx Community College degree or transferred to an appropriate curriculum at another institution.

Regulations found in other sections of this catalog concerning admissions, courses, credits, matriculation status, records, registration, student services, academic policies and procedures, and governance of the college apply both to students attending day as well as evening classes. Evening courses are offered in all curricula except for Nursing and Music. Liberal arts, general education and science courses in these curricula are available during evening hours and may be taken by non-matriculants who wish to gain credits towards matriculation.

CONTINUING EDUCATION

In addition to fulfilling its educational responsibilities to each student enrolled, Bronx Community College is committed to providing educational services requested by community agencies and civic groups. Such services or programs, generally called Continuing Education, may include non-credit adult education courses and credit courses given at neighborhood sites away from the main campus of the college.

Public and private agencies, voluntary organizations and commercial firms desiring educational upgrading opportunities for members, employees or community residents may call upon the college for a variety of services and assistance.

Examples of programs undertaken include:

Bronx State Hospital—Approximately 80 ward personnel of Bronx State Hospital take standard credit-bearing courses taught by the college’s instructional staff in hospital classrooms. Hospital employee-students are granted released time.

Martin Luther King Medical Care Center—Employees have taken regular college courses under a released time procedure. Participants who concluded the program successfully are now enrolled at the college.
Education Associate Program—Two hundred kindergarten assistant teachers employed by the Board of Education participate in an afternoon and evening program.

College Adapter Program—Employees of Bronx State Hospital and Martin Luther King Medical Care Center have participated in a special program for college-oriented high school graduates needing academic skills upgrading. Such programs, called college adapter programs, allow employees to attend classes for two hours a day, four days a week with released time provided. Successful participants have subsequently enrolled in regular college classes.

COMMUNITY SERVICE PROGRAMS

As an outgrowth of its commitment to respond to community needs, the college has developed a series of specialized training programs. Bronx County public, private and community agencies may call upon the college's Community Service Programs Office for assistance in developing programs similar to those outlined below:

Regional Opportunity Centers I and II—Six hundred previously unemployed and under-employed adults participate in full-time vocational training and educational upgrading programs at two Regional Opportunity Centers situated respectively in the Tremont and Mott Haven communities of the Bronx. Bronx Community College has responsibility for the educational component of the program.

Manpower Development and Training Programs—Bronx Community College, a designated Manpower Development and Training agency, has conducted half-year, full-time stenographer and typist programs.

Small Businessmen's Upgrading Program—Spanish-speaking store owners may enroll in the short-term, tuition-free small business management program sponsored by the college under a grant from the Chemical Bank of New York. Spanish-speaking professors and business leaders serve as instructors.

Teen-Age Water Safety Program—Teen-agers, 17 years and over, from families of limited economic means are eligible to participate in a short-term water safety program which qualifies successful candidates for after-school and summer employment as Water Safety instructors or life guards. The program is funded by the Chase Manhattan Bank.

Isabella Geriatric Center Office Practices Upgrading Program—Office personnel of the nationally recognized Isabella Geriatric Center have participated in a work released time office practices upgrading program developed by the college. Program funding was provided by the Bureau of On-the-Job Training of the State Labor Department.

Head Start Mothers' Typist Program—Mothers of Head Start enrolled youngsters have participated in a tuition-free, 96-hour typing program. Office of Economic Opportunity funding permitted development of this certificate program.
SUMMER SESSION
Dean of Summer Session: Dr. Henry F. White
Assistant Dean of Summer Session: Prof. Herman Stein

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

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 apply during the Summer Session.

DIRECTORY OF FACILITIES AND OFFICES

Auditoriums
The Main 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 extracurricular activities, cultural programs, and community activities. The Nursing Center also has a modern, completely equipped 604-seat auditorium.

The Campus Shop
The bookstore, operated as a private concession under contract with the College, at 115 East 184th Street, across the street from the Main Building, stocks all required and supplementary textbooks and supplies, in addition to greeting cards, 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. A branch store is at 16 East 183rd Street, near the Jerome Avenue Center.

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 meals and refreshments available, receptions and meetings are often held here.

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, 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 Dean of Evening and Continuing Education Division is Room 5-8 of the Main Building. Office hours are 9 a.m. to 10:30 p.m. on those evenings when classes are in session.

Faculty Offices
Many faculty and staff offices are located in the various instructional centers. 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.

Fordham Center
Located at 2468 Jerome Avenue just north of Fordham Road, this facility contains a lounge, departmental and faculty offices and classrooms.

Health Service
The main office of the Health Service is Room BM-6, Main Building. When classes are in session, a registered nurse is on duty from 8 a.m. to 10:30 p.m., Monday through Thursday, and 9 a.m. to 5 p.m., Friday. Registered nurses are also on duty during those hours at the Fordham and Jerome Centers, and from 6 p.m. to 10:30 p.m. in Room 221 at the Bronx High School of Science. The Nursing Center has a 24-hour health service.

Jerome Avenue Center
Located at 2246 Jerome Avenue just south of East 183 Street, this facility contains lounge facilities, departmental faculty offices, classrooms, and the College's computer and data processing center.

Kingsbridge Center
This center, at 2507 Jerome Avenue, houses the College's library as well as other faculty offices and classrooms.

Nursing Center
The many facilities of the 13-story Nursing School and Residence located at Pelham Parkway South and Eastchester Road are listed below. The Office of the Administrator of the Nursing Center is located on the first floor of that center.

Park Avenue Center
This center, at 4725 Park Avenue, provides facilities for programs in plastics technology and microelectronics and continuing education courses.

Public Information Office
The Public Information Office is located in Room 3-10 of the Main Building. Information about cultural events and college activities is available from the office.
**Student Council Office**
The Day Student Council Office is Room 5-22 of the Main Building; Evening Student Council Office is Room J24C of the Jerome Center.

**Student Lounge**
Students are invited to use and enjoy these recreation areas in the Main Building as well as the Jerome and Fordham Centers.

**Student Publications Office**
The office for student publications is Room F-119 at the Fordham Center. The staffs of *The Communicator*, *Genesis*, and the *Student Newsletter* operate out of this office. Facilities for a photography laboratory are available.

**Swimming Pool and Gymnasium**
The swimming pools and gymnasiums located at the Main and Nursing Centers are used by Health and Physical Education classes and college athletic teams. They are also available for student and faculty recreational use during specified and announced hours.

**THE NURSING CENTER**
A unique and modern educational facility devoted to the education of nurses was recently added to Bronx Community College. The Bronx Community College Nursing Center located 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. 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 and the State Education Department have enabled the College to experiment with and develop techniques for the use of closed-circuit television and video and audio tapes in clinical nursing instruction.

The new Nursing Center, opened in September, 1964, is a modern thirteen-story building containing a beautiful auditorium, classrooms, library, laboratories, lecture halls, and conference rooms, as well as ten floors devoted to 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 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

The Library of Bronx Community College is an instructional department. It is a resource center for student research and supplements classroom instruction through its books and periodical collections and audio-visual materials.

The Library has three locations: The Main Building, the Jerome Avenue Center and the Nursing Center. The collection at the Nursing Center is designed to serve the special needs of the nursing program.

The Library's book collection presently exceeds 30,000 volumes and is growing rapidly. The Library currently receives approximately 450 periodicals covering a wide variety of subjects and maintains back files of selected journals. The collection includes books for leisure-time reading and a pamphlet file on topics of current interest.

The Office of Audio-Visual Services, an arm of the Library, provides many types of media for students and faculty. In the Audio-Visual Laboratory, a great variety of educational technology is employed to enhance learning—cartridge films, slides, film strips, records, tape recordings and closed circuit television. Many of these materials are produced on campus to meet the specific requirements of students and faculty.

The Library staff provides reference aid for the individual reader and prepares bibliographies for specific subject areas. In addition, the staff offers formal classroom instruction in the use of the Library and research procedures.

INSTITUTIONAL RESEARCH

Coordinator: Dr. Norman Eagle

The Office of Institutional Research conducts studies with the aim of providing members of the college community with information and data important for decision-making. It assists in the evaluation of new or experimental projects, conducts follow-up studies on former students to illuminate the effectiveness of the college program, and carries out surveys of student opinion to keep faculty and administration abreast of issues of concern to the college community.
ADMISSION TO THE COLLEGE

All inquiries and information pertaining to admission to the College should be addressed:

ADMISSIONS OFFICE
Bronx Community College
The City University of New York
120 East 184th Street, Bronx, New York 10458
Phone: (212) WEllington 3-7000

OFFICE HOURS:
Monday through Thursday ..................... 9 a.m.-9 p.m.
Friday ........................................... 9 a.m.-5 p.m.
Summer Hours ............................... 9 a.m.-4 p.m.

Admissions Officer and Registrar: Professor J. E. D'Andrea
Assistant Admissions Officer: Mr. P. Iannelli.

An applicant for admission to Bronx Community College may be approved for one of the programs offered by the College if he fulfills the basic admissions requirements and follows the admission procedures.

BASIC ADMISSION REQUIREMENTS

All applicants must meet the basic requirements; a high school diploma, residence and health.

High School Diploma
A diploma from an accredited high school is required for admission to Bronx Community College. A high school certificate is not an acceptable substitute for the diploma.

A New York State Equivalency Diploma and General Education Development Examination may be substituted. USAFI diplomas must be converted to New York State Equivalency Diploma.

Residence
An undergraduate matriculated student who is a resident of New York City does not pay tuition. The residency of a student under 21 years of age is governed by the residence of his parents or legal guardian.

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 York 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 33.)

Health and Physical Standards

All students, matriculants and non-matriculants, 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 set by the College's Committee on Admissions. In addition, students in Nursing must take a special physical examination given in cooperation with the Department of Hospitals of the City of New York.

APPLICATION PROCEDURE

The Application

The City University is using two application forms:
1. The Regular Application Form permits students to apply to as many as six regular college programs of City University on a single form. Even if the six programs are in six different CUNY colleges, he needs to file only one application.
2. The Special Programs Application is designed for students applying to SEEK and College Discovery and contains its own instruction manual. It should be noted, however, that applications from students who cannot be admitted to SEEK and College Discovery but who meet CUNY admissions requirements will be admitted automatically to a regular community or senior college program.

Where to Apply:

The following applicants should complete the regular Application Form and send it to:

THE UNIVERSITY APPLICATION PROCESSING CENTER
Box 148, Vanderveer Station, Brooklyn, New York 11210

1. Students who are presently attending high school and who seek admission as matriculated students to the lower Freshman class of any college (senior or community) of The City University of New York. The student must have completed at least six semesters (11th year) of high school.
2. Students who have earned an Equivalency Diploma and passed the General Education Development Examination.
3. Students who have been graduated from high school and have never attended any institution of higher learning.
4. All students who have had only one year of secondary schooling outside the United States.

All students who have had more than one year of secondary schooling outside the United States should file a Foreign Students Application that is available at The Office of Admission Services, 875 Avenue of the Americas, New York, N.Y. 10001.
The following applicants should apply directly to the college of their choice:
1. Students who have been graduated from high school and have attended any institution of higher learning, or are presently attending an institution of higher learning.
2. Applicants who wish non-degree status (non-matriculated students). Each college will advise and supply an application to the above applicants.

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.)

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

Notification Dates
Applicants for Fall admission will be notified by April 14; applicants for Spring, by December 15. Late applicants for Fall will be notified by June 1.

CHOOSING YOUR CURRICULUM
Many factors need to be considered in selecting the best college curriculum. Every effort will be made to honor the program the applicant chooses. Most students whose high school preparation has prepared them with adequate skills in reading, writing and mathematics will be able immediately to begin regular college work. Other students will be required to enroll initially in preparatory courses which will prepare them for college-level work. Such students will find that these courses may extend the time necessary to earn a degree. Students with special interests and aptitudes may wish to apply for admission to one of the various Career programs in the areas of business, engineering technology or the health technologies. The advice of parents, counselors, teachers and college friends can help you choose a program where your success and personal satisfaction can be attained.

SCHOLASTIC APTITUDE TEST (CEEB-SAT)
Students are encouraged to take the Scholastic Aptitude Test given by College Entrance Examination Board for guidance and counseling purposes, although the test scores are not required for admission to any program.

BCC PLACEMENT TESTS
After admission, students are given a battery of placement tests in English, mathematics, speech, 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.
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 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. Grades of D received in equivalent courses taken at all other institutions will be accepted for credit. Failing grades in equivalent courses will be included in the students index.

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 course he has failed.

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.
### RECOMMENDED PREPARATORY HIGH SCHOOL UNITS FOR 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>Business</th>
<th>American History</th>
<th>English</th>
<th>Foreign Language</th>
<th>Mathematics</th>
<th>Science</th>
<th>Electives</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting (A.A.S.)</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>1*</td>
<td>1</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Administration (A.A.)</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Data Processing (A.A.S.)</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>1**</td>
<td>1</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Retail Bus. Management (A.A.S.)</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>1*</td>
<td>1</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Teaching of Bus. Subjects (A.A.)</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>16</td>
</tr>
</tbody>
</table>

#### Chemical Technology

| Chemical Technology (A.A.S.) | 1    | 4       | 0                | 2**         | 1†       | 7†        | 16    |
| Plastic Technology (A.A.S.) | 1    | 4       | 0                | 1**         | 1       | 8         | 16    |
| Pre-Pharmacy (A.A.S.) | 1    | 4       | 0                | 3           | 1†       | 7†        | 16    |

#### Education Associate (A.A.S.)

| Education Associate (A.A.S.) | 1    | 4       | 0                | 1           | 1†       | 9†        | 16    |

#### Engineering

| Engineering Science (A.A.) | 1    | 4       | 0                | 3½          | 1††      | 6½        | 16    |
| Electrical Technology (A.A.S.) | 1    | 4       | 0                | 2½          | 1       | 7½        | 16    |
| Mechanical Technology (A.A.S.) | 1    | 4       | 0                | 2½          | 1       | 7½        | 16    |

#### Liberal Arts & Sciences (A.A. & A.S.)

| Liberal Arts & Sciences (A.A. & A.S.) | 1    | 4       | 3                | 3           | 1       | 4         | 16    |

#### Medical Lab. Technology (A.A.S.)

| Medical Lab. Technology (A.A.S.) | 1    | 4       | 0                | 2½          | 1***     | 7½        | 16    |

#### Nursing (A.A.S.)

| Nursing (A.A.S.) | 1    | 4       | 0                | 1*          | 1       | 9         | 16    |

#### Performing Arts—Music (A.A.S.)

| Performing Arts—Music (A.A.S.) | 1    | 4       | 0                | 2           | 1       | 8         | 16    |

#### Secretarial Studies (A.A.S.)

| Secretarial Studies (A.A.S.) | 1    | 4       | 0                | 1†          | 1       | 9         | 16    |

#### Teaching Sec. Studies (A.A.)

| Teaching Sec. Studies (A.A.) | 1    | 4       | 2                | 3           | 1       | 5         | 16    |
EXPLANATIONS

(1) Students with any deficiencies in the recommended units but meeting all other basic admissions requirements, must remove the deficiencies before passing college level courses in the area.

(2) Applicants with Equivalency Diplomas must complete requirements in FOREIGN LANGUAGE, MATHEMATICS, and SCIENCE before they can pursue college level courses in the areas.

* 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.

* Elementary Algebra is recommended.

** It is recommended that students include ½ unit of Intermediate Algebra or ½ unit of 11th year Math.

‡ One unit of Chemistry or Physics recommended.

† One must be Biology or Chemistry.

*** Biology required; Chemistry is recommended.

§ Intermediate Algebra is required.

‡‡ Include Chemistry or Physics.

¶ Explanation of MATHEMATICS units:

- One unit must be 9th Yr. Math (Elem. Algebra)
- 3 units must include 9th Yr. Math (Elem. Algebra)

- 2½ units must include 9th Yr. Math (Elem. Algebra)
- 10th Yr. Math (Plane Geometry)
- Intermediate Algebra
- 3½ units must include 9th Yr. Math (Elem. Algebra)

- 10th Yr. Math (Plane Geometry)

- 11th Yr. Math (Int. Alg. and Trig.)

- Advanced Algebra
FOREIGN STUDENTS ADMISSION

Application Procedure
Application forms and detailed information may be obtained from Bronx Community College or from:

City University of New York • Office of Admission Services
875 Avenue of the Americas, New York, New York 10001

The Educational Background Summary Form (Part II of the application) should show a complete chronological survey of the applicant's educational experience in all schools attended, whether in the U. S. A. or elsewhere. It is to the applicant's advantage to complete the summary form accurately and completely.

It is the applicant's responsibility to write to all secondary and higher educational institutions he attended requesting official documents.

Application Fee
Each application form must be accompanied by a U.S. bank check or money order in the exact amount of $6.00 payable to the City University of New York. This fee is not refundable.

Deadline
The deadline for receipt of completed applications is January 15 for September admission; October 15 for February admission.

Final Arrangements
Only a limited number of qualified applicants from other countries are admitted tuition-free.

Test Requirements
Applicants from non-English speaking countries must have taken the Test of English as a Foreign Language (TOEFL).

Health Requirements
All applicants accepted for matriculation will be required to submit a health statement from a physician on a form provided by the college. The college determines whether the student's health permits school attendance.

Notification of Admission
Applicants will be notified of their admission by the college which has accepted them. They may be required to furnish additional documents, especially with regard to financial and housing arrangements, before their admission becomes final.

Students are admitted to all units of The City University of New York without regard to race, color, creed or national origin. (This statement is made in compliance with U. S. Department of Health, Education and Welfare regulations.)
RECORDS AND REGISTRATION

REGISTRAR'S OFFICE
Admissions Officer and Registrar: Prof. J. E. D'Andrea
Associate Registrars: Mr. H. Erdsneker, Mrs. M. Kraft
Assistant Registrars: Mr. R. Lewis, Miss R. Tobin, Miss S. Turk

The Registrar's Office (Room 2-35, 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. He must carry this 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 2-35) on the special form provided by that office. There is a charge of $2.00 for each transcript requested to be sent, except that transcripts to be sent to colleges of the City University of New York and the State 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 Center.
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 Adviser should be consulted at this time to determine the next appropriate steps in his program. Since early registration involves completing registration before the usual time and planning for the subsequent semesters, matriculant students should take advantage of this opportunity and consult with their Advisers who must approve and sign their early registration forms.

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 Advisers 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 49.)

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 of the Head of Department is required.

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 at Bronx Community College must fill out the required Permit Form issued by the Registrar's Office where permission will be granted according to College regulations.

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 matriculants with permits may, subject to prior approval of the BCC Admissions Officer, 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.

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.

All fees and tuition charges are subject to change by action of the Board of Higher Education without prior notice. In the event of any increase in the fees or tuition charges, payments already made to the college will be treated as a partial payment and notification will be given of the additional amount due and the time and method for payment.

General Fees

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

1. Day students
   (Includes registration, library, laboratory, audio-laboratory, breakage, malpractice insurance, student activities and graduation fees.) $35.00/Sem.

2. Evening students
   (Includes registration, library, laboratory, audio-laboratory, breakage, student activities, and graduation fees.) $17.00/Sem.

Special Fees

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

1. Application for Admission $10.00
   a. This fee is payable at registration time if not paid before
   b. This fee is paid to Bronx Community College by applicants processed by the college.

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

3. Make-up and Special Examinations $5.00
   (Maximum fee of $15.00 for three or more examinations during one semester.)
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 credit weight)
1. Residents of New York City Free Tuition*
2. Non-Residents of New York City:
   b. Residents of N.Y. State without Certificate of Residence $400/Sem.
3. Non-Residents of New York State $400/Sem.
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.)

Matriculated Students — Part-time (fewer than 12 credit weight)
1. Residents of New York City Free Tuition**
2. Non-Residents of New York City:
   a. Residents of N.Y. State with Certificate of Residence $15/contact hr.
   b. Residents of N.Y. State without Certificate of Residence $30/contact hr.
3. Non-Residents of N.Y. State $30/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
1. Residents of New York City $15/contact hr.
2. Residents of New York State $15/contact hr.
   a. With a Certificate of Residence $15/contact hr.
   b. Without a Certificate of Residence $30/contact hr.
3. Non-Residents of New York State $30/contact hr.

*Matriculated Students—Full-Time
For all courses up to 4 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 per semester.
2. For a student who has commenced work on an Associate Degree and has changed his degree objective more than once, $200 per semester.
3. A student exceeding by more than 4 credits earned the number of credits required for a degree, $18 per contact hour for those credits in excess of 4 above the degree requirement.

**Matriculated Students—Part-Time
For all courses up to 4 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—$18 per contact hour.
2. A student who has commenced work on an Associate Degree and has changed his degree objective more than once, $18 per contact hour.
3. A student exceeding by more than 4 credits earned the number of credits required for a degree, $18 per contact hour for those credits in excess of 4 above the degree requirement.
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 35). These students must present evidence of enlistment or induction immediately.

VETERANS’ AFFAIRS
Information and advice concerning veterans’ affairs will be furnished by the Registrar’s Office.

All new students planning to receive education benefits under “G.I.” Bills must contact the Veteran’s Administration, 252 Seventh Ave., New York City, before registration, to make arrangements for benefits. Report to the Registrar’s Office during the first week of classes.

Selective Service Forms
Students who wish to inform their Selective Service Local Board of their college attendance may secure the appropriate forms in the Registrar’s Office.
REFUND OF TUITION AND OTHER FEES

a. Non-Military
Fees are not refunded unless a course is withdrawn by the College. Under exceptional circumstances, upon approval of a written application made to the Registrar*, a refund of tuition fees only may be made in accordance with the following schedule:

<table>
<thead>
<tr>
<th>Withdrawal from class before the scheduled date of the session</th>
<th>Other Than Summer Session</th>
<th>Summer Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawal from course in order to register at another unit of the City University during that semester</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Withdrawal within one week after scheduled opening date of the session</td>
<td>75%</td>
<td>50%</td>
</tr>
<tr>
<td>Withdrawal during the second week after scheduled opening of the session</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>Withdrawal during third week after scheduled opening date of the session</td>
<td>25%</td>
<td>None</td>
</tr>
<tr>
<td>Withdrawal after completion of third week after scheduled opening date of session</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

A full (100%) refund of tuition, 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 refunded only at the discretion of the President or his designee(s).

b. Military Refunds
Special Military Refund regulations apply to students who enlist, or are called to serve in the military services of the United States.

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

2. In order to obtain a grade and full academic credits, a student must attend approximately thirteen (13) weeks. 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 who have enlisted in military service do not attend for a sufficient time to qualify for a grade and full academic credit but continue in attendance to within two (2) weeks of induction, refund of tuition and all other fees except application fee will be made in accordance with the following principles:

   Withdrawal before completion of the fourth week of the semester ........................................ 100%
   Withdrawal after this date ............................................................................................................. 50%

4. In instances where students who are drafted into the military services do not attend for sufficient time to qualify for a grade, a 100% refund of tuition and all other fees except the application fee will be made.

* Students who wish to withdraw before the opening date at classes or who wish only to drop a course should apply in person directly to the Registrar’s Office.
COMMITTEE ON ACADEMIC STANDING

The Committee on Academic Standing represents the College faculty in all matters pertaining to the quality of scholarship and standards of academic achievements at the College. It deals with matters of standards for matriculation, awarding of degrees, grades, regulation of student program loads, and student appeals on these matters. Communications with the Committee should be made through the Registrar who serves as its Executive Secretary.

Students are advised to secure a copy of the Codification of Academic Regulations of the Committee on Academic Standing. Copies are available in the Registrar’s Office.

MATRICULATION

Upon admission to the College, a student is designated as matriculant or non-matriculant.

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 and has met the basic college admission requirements 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 INDEX CLASSIFICATION CHART shown on page 39.
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 58-92.

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 32, unless they are matriculants in the Nursing curriculum.

Non-Matriculated Student:
A classified non-matriculant is a student 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 who had transferred from another college with an unsatisfactory record.

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 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 41) 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.

Non-Degree Status
Non-degree status occurs when a student fails to earn and maintain the required cumulative academic index in order to continue his non-matriculant status in the college.

Students in this category will have last priority at registration.

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.
INDEX CLASSIFICATION CHART

<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 if index is lower than listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-11½</td>
<td>No classification made at this stage.</td>
<td>No reclassification</td>
</tr>
<tr>
<td>12-23½</td>
<td>1.67</td>
<td>1.54</td>
</tr>
<tr>
<td>24-37½</td>
<td>1.78</td>
<td>1.74</td>
</tr>
<tr>
<td>38-51½</td>
<td>1.88</td>
<td>1.87</td>
</tr>
<tr>
<td>52-63½</td>
<td>1.95</td>
<td>1.95</td>
</tr>
<tr>
<td>64-73½</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>74 or greater</td>
<td></td>
<td>2.00</td>
</tr>
</tbody>
</table>

The following items are applicable to the above chart:

A student who loses matriculant status (Column B), or the privilege of a full program (Column A), may regain this status by achieving a cumulative index equal to or higher than that indicated in the respective column for the individual student’s “credit taken” category.

The intent of this Index Classification Chart is that no student will lose matriculation after one semester of attendance. If a loss of matriculation occurs prior to the completion of two semesters of attendance, exclusive of Summer Session, the student should report to the Registrar’s Office for reclassification to his matriculant status.

The above chart is adhered to strictly. Exceptions in individual cases to the Index Classification Chart above, for determination of status, are not permitted.

Matriculants with cumulative index below that listed in Column B become Non-Matriculants. However, matriculated students who attend the Summer Session and attain a 2.00 semester index in the Summer Session retain their matriculated status for the subsequent Fall Semester (or Spring, if the student does not attend the Fall), regardless of possible reclassification according to the chart on account of cumulative index.

DEGREE REQUIREMENTS

The required courses for the various degrees are listed in the sections on the Curricula and Programs (See pages 58 to 135.)

The student is responsible for ascertaining and completing all the requirements for the degree for which he is 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.
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 the basic admission requirements for matriculation and/or he has maintained satisfactory college achievement, his status may be adjusted.

Classified Non-Matriculants
A classified non-matriculant may regain matriculation status by application of the Index Classification Chart (page 39).

Non-Degree Students
Non-degree students may become classified or unclassified non-matriculants by attaining a minimum cumulative scholastic index as listed for their "credits taken" category on the Index Classification Chart.

CHANGE OF MATRICULATION CLASSIFICATION

Students who believe they qualify for a reclassification 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.

REINSTATEMENT

After one or more semesters of absence 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 Reinstatement 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 COURSE DEFICIENCIES

A student lacking the recommended preparatory high school courses for his curriculum will be admitted to the college. He must take at least one of these courses per semester until all deficiencies are removed. Such courses count as part of the maximum program load each semester, although not creditable toward a degree. Grades in these courses will be included in the scholastic Index, although they are not creditable toward the degree.

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, US 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.
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>
</tr>
</thead>
<tbody>
<tr>
<td>Business Administration</td>
<td>Language</td>
</tr>
<tr>
<td>Business (Career)</td>
<td>Math</td>
</tr>
<tr>
<td></td>
<td>(not Business)</td>
</tr>
<tr>
<td>Business Teaching</td>
<td>Language</td>
</tr>
<tr>
<td>Chemical Technology</td>
<td>Math</td>
</tr>
<tr>
<td>(incl. Pre-Pharm.)</td>
<td>Major Area</td>
</tr>
<tr>
<td>Engineering Science</td>
<td>Math</td>
</tr>
<tr>
<td>Electrical Technology</td>
<td>Major Area</td>
</tr>
<tr>
<td>Mechanical Technology</td>
<td>Math</td>
</tr>
<tr>
<td>Liberal Arts &amp; Sciences</td>
<td>Major Area</td>
</tr>
<tr>
<td>Medical Lab. Technology</td>
<td>Math</td>
</tr>
<tr>
<td>Performing Arts-Music</td>
<td>Major Area</td>
</tr>
<tr>
<td>Plastics Technology</td>
<td>Speech</td>
</tr>
<tr>
<td>Secretarial Studies</td>
<td>Math</td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Major Area</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>Science</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>Science</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>Major Area</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CHANGE OF CURRICULUM

To change from one curriculum to another a matriculant student must have the Change of Curriculum Formula, an index of 2.00 or higher in 9 or more credits taken, counting only the following courses:

- ENG 13 and 14
- HIS 11 and 12 (or first two Social Studies courses taken)
- SPH 11
- ART 11
- MUS 11
- All HLT courses

A candidate for Change of Curriculum who has met the required Formula will be permitted to change, even if he has deficiencies in the specified high school unit requirements for the curriculum desired; but he will have to satisfy these deficiencies.

Approval of the Committee on Academic Standing will be required for more than one change of curriculum.

In cases where advanced standing (transfer) credit is involved, all transfer courses which apply to the C of C Formula will apply.

A student must have completed at least one semester at BCC before he may apply for a Change of Curriculum. He must have already completed the minimum number of courses (9 credits) involved before an evaluation is made.
All required courses in the old curriculum which are required in the new curriculum count in the index and toward required degree credits. A course taken in the old curriculum as a free elective*, but which is required in the new curriculum, will count in the cumulative index and toward required degree credits.

Required and/or restricted electives** in the old curriculum that are not so considered in the new curriculum will not count as free electives in the new curriculum, except by written application of the student and approval of the Curriculum Coordinator in the new curriculum. Courses so approved will count in the cumulative index and toward degree credits.

**Non-matriculated students** may apply for a change of curriculum after consultation with a counselor.

**PROGRAM ALLOWANCES AND COURSE LOADS**

**MAXIMUM PROGRAMS**

**Matriculants**
A maximum program for a matriculant (who is not in the limited program category 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**
A non-matriculant may, at the discretion of the registration adviser, be permitted to take up to and including a program weight of 10 credits in any one semester. The Curriculum Coordinator, under exceptional circumstances, may increase a non-matriculant's approved credit-weight for a semester up to but not exceeding 11½ credits. The student must secure written approval from his Curriculum Coordinator to take a program weight of 10½ to 11½ credits.

**Non-Degree Students**
Non-degree students will be permitted to take a program weight of three courses not to exceed 6 credits, or two courses not to exceed 8 credits.

**LIMITED (PROBATION) PROGRAMS**

In accordance with the specifications of the Index Classification Chart (see page 39), 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 or adviser.

* A free elective is a course not specifically required for the degree in the curriculum in which the student is enrolled at the time of taking the course.
** A restricted elective is a course which may be chosen from a designated list of courses.
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 three courses not to exceed 6 credits, or two courses not to exceed 8 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 adviser.

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.

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, instructors 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 Adviser.</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>
</tbody>
</table>
| J (No Academic Penalty) | 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:  
   Before Mid-term: 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 an adviser 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.)  
   Mid-term: After the announcement of mid-term grades, as indicated in the Academic 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. |
| U—Audit | |
| P—Passing | |
REGULATIONS: TEMPORARY GRADES

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. 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.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>Absent from final examination, but otherwise passing in course. Upon application supported by evidence of legitimate, unavoidable absence, student will be given make-up examination. May resolve to A, B, C, D, F, or L. (Refer to Regulations below.)</td>
</tr>
<tr>
<td>L</td>
<td>Work in course incomplete, but otherwise passing in course, including final examination. May resolve to A, B, D, or F. (Refer to Regulations below.)</td>
</tr>
</tbody>
</table>

1. Registration in Subsequent Level Courses
A student with the grade of 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. 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. 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.

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 40.)

SCHEDULE OF EXCESSIVE ABSENCES

<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 bloc 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 his 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 35.

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 then appropriate arrangements made for a leave of absence.

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.

WITHDRAWAL FROM COLLEGE
A student who plans to withdraw from 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 acknowledgement of their withdrawal, to avoid academic penalty.

Students are urged to seek guidance before resigning. Counseling and advisement prior to the final decision to withdrawal 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 Registrar.

TRANSFER POLICIES: FROM BCC TO A SENIOR COLLEGE
From transfer curriculums to senior colleges of The City University of New York
• A student who has received an A.A. or A.S. degree, or an A.A.S. degree in a program officially designated as a transfer program by the City University, shall be admitted to the senior college of his choice.
• A student who has completed an approved well-balanced program of at least 30 credits in an A.A. or A.S. curriculum and who has maintained an index of at least 2.75 (with a C being 2.00 and a B being 3.00) shall be admitted to the senior college of his choice.

• A graduate of a City University community college nursing program who has attained a 2.5 index shall be admitted to the nursing program of the senior college of his choice.

From transfer curriculums to other higher educational institutions
Generally, students transferring from one of the City University community colleges to other higher educational institutions have found that transfer credit is awarded for credits earned with grades of C or better. Each institution makes its own transfer policies, however, and students planning to transfer to institutions outside the City University would be well advised to contact the institution to which they are planning to transfer to discuss transfer policies.

From career curriculums to senior colleges of The City University of New York
Because of the differences between the community college career programs and the liberal arts programs of the senior colleges, the senior institutions of the City University will in general accept students with the Associate in Applied Science (A.A.S.) degrees only in the School of General Studies. However, career program graduates will be accepted directly as matriculated students in related professional programs of senior units of City University.

Students transferring from career programs will receive transfer credits only for those courses which will become a part of the bachelor’s degree program.

From career curriculums to other higher educational institutions
Many four-year institutions will admit graduates of the career programs, granting varying amounts of advanced standing credit for studies completed at BCC.

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.

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

POST DEGREE STUDIES
Students awarded a degree by the College may continue to attend only as non-matriculants. Those who wish to matriculate for an additional degree must apply for matriculation to the Registrar’s Office.

No student who has received an associate in arts or associate in applied science degree from one of the colleges of The City University of New York either wholly or in part on a tuition-free basis shall be eligible for free tuition in any course or courses leading to the same or any other associate degree.
STUDENT PERSONNEL DEPARTMENT

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.

The 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 advisers enable students to develop their potential, frequently helping them to formulate realistic goals and to discover their own personal worth and ability.

Orientation

The Freshman 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 Freshman 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 through lectures on such topics as “Choosing a College,” “Application Procedures,” and “Adjustment to the New College.”

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 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 Adviser. 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 Adviser, generally a member of the teaching faculty, 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 advisers any time during the year. Curriculum advisers are also sources of vocational information for students.

Psychological Services
This service 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. Students are also free to make individual appointments with the psychologist without discussing personal issues with any counselor or faculty member at large. Where psychological evaluations and other test information are indicated, arrangements are made on an individualized basis, and the results discussed with the student.

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.
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.

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 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 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. Nursing Educational Opportunity Grants are available to Nursing 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 may range from $200 to $800 depending on need.

Scholarships
The following scholarships are administered by the Faculty Committee on Scholarships and Financial Aid and are awarded on the basis of need and academic standing.

- Bronx Community College Scholarships made possible through the generosity of private individuals and organizations including George D. Busher and H. W. Wilson Foundation.
- Bronx Rotary Foundation Scholarships
- Dr. Israel Gottesman Award (in Bio-Medical Technology)
- Murray R. Kaye Memorial Scholarship for a student in Liberal Arts
- Elizabeth B. King Memorial Scholarship
- Harry Lesser Memorial Scholarship
- Harold Levine Memorial Scholarship for non-matriculated student
- Gittel Silverman Memorial Scholarship
- A. Philip Randolph "Leaders of Tomorrow" Scholarship

The following special scholarships are awarded at commencement:

- The Alexander's Department Store Award
- The Sayer Award in English
- Edith Rosenfeld Memorial Scholarship

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

College Discovery Program
The College Discovery Program, supported by state and city funds, was initiated at Bronx Community College in 1964 to offer the possibility for higher education to students of disadvantaged backgrounds. The selection process has been changed so that students now apply directly to City University Special College Programs.

College Discovery students receive free books, pay no registration fees, and in addition, receive a stipend which is intended to cover their basic needs so that they are able to attend college. Remediation and intensive counseling are provided to assist the students to interpret the demands of college and to resolve some of the more pressing problems that interfere with their academic success.

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.

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 student activities program is considered an official part of the educational program of the college and is organized and operated as an on-going laboratory in human relations.

Student representatives participate as voting members on the Bronx Community College Association, Inc., which is responsible for financial support of student organizations, the Faculty Committee on Student Activities which determines policy, the Cultural Committee and the Committee on Instruction Students are involved on other faculty committees such as the Committee on Academic Standing and Curriculum Committee.
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 Government**
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.

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

Some of the activities available to students are:

**Curriculum & Social Clubs**
- Accounting Club
- American Club
- Arts & Crafts Club
- BCC Athletic Association
- Biology Club
- Brotherhood
- Business Club
- Chess Club
- Chinese Club
- Creative Directions
- Folk Music Club
- IEEE (Institute of Electrical & Electronic Engineers)
- International Club
- Jose Marti Club
- Masada Club
- Math Club
- Modern Language Clubs (French, German, Italian, Spanish)
- Nursing Center Student Association
- Photography Club
- Physics Club
- Pre-Law Club
- Retailing Club
- SDORA (Student Drug Orientation & Rehabilitation Association)
- Theatre, Cinema & Ballet Club
- Theatre Workshop

**Discussion Groups**
- JFK Human Relations Society

**Student Publications**
- Communicator (Newspaper)
- Day Student Newsletter
- Evening Reporter
- Genesis (Senior Yearbook)
- Gleanings (Literary Magazine)
- 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.
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 student's 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 toward 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 Soccer 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 Volleyball Club
- Women's Bowling Club
6 THE CURRICULA

BUSINESS AND COMMERCE
Curriculum Coordinator: Prof. M. May

The programs offered in Business and Commerce fall into three categories: 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 58-67.

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) Data Processing with a specialization in Computer Programming.

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—Accounting Specialization

The accountant is indispensable in modern business organization and management. His basic responsibilities include the recording and summarizing of financial transactions. Accountants 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 Accountants or as teachers of accounting and related subjects.

Curriculum Pattern for the Accounting Specialization

72 Credits required for A.A.S. Degree

<table>
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<tr>
<td>HIS 11</td>
<td>History of Western Civ. 1</td>
</tr>
<tr>
<td>**</td>
<td>Science (choose one)</td>
</tr>
<tr>
<td>ACC 11</td>
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</tr>
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</tr>
<tr>
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<td>Introduction to Music</td>
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<td>Advanced Speech</td>
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<tr>
<td>ECO 21</td>
<td>Economics</td>
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<td>**</td>
<td>Science (continuation)</td>
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<tr>
<td>ACC 13</td>
<td>Intermediate Accounting</td>
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<td>FIN 31</td>
<td>Principles of Finance</td>
</tr>
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<td></td>
</tr>
</tbody>
</table>

** Students may select BIO 11, CHM 11, PHY 11, or SCI 11.
§ Or MTH 16, for those with Intermediate Algebra; or MTH 30, for those with Trigonometry who intend to transfer.
† May be waived for Evening Session students with approval of curriculum advisor.
Business Career Curriculum - 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.

Completion of the retailing curriculum prepares a graduate to start a 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
70 Credits required for A.A.S. Degree

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<td>Speech Fundamentals*</td>
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<td>Intro. to Physical Education</td>
<td>.1</td>
</tr>
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<td>HIS 11</td>
<td>History of Western Civ. 1</td>
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<td>RET 11</td>
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</tr>
<tr>
<td>HIS 12</td>
<td>History of Western Civ. 2</td>
<td>.3</td>
</tr>
<tr>
<td>§MTH 11</td>
<td>Intro. College Mathematics</td>
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<tr>
<td>ACC 11</td>
<td>Fundamental Accounting 1</td>
<td>.4</td>
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<td>RET 14</td>
<td>Fashion Markets</td>
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<td>PSY 21</td>
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<td>LAW 41</td>
<td>Business Law</td>
<td>.3</td>
</tr>
<tr>
<td>RET 31</td>
<td>Salesmanship</td>
<td>.2</td>
</tr>
<tr>
<td>RET 33</td>
<td>Buying Techniques</td>
<td>.3</td>
</tr>
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<td>RET 35</td>
<td>Retail Merchandising 1</td>
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<tr>
<td>MUS11 or 12</td>
<td>Introduction to Music</td>
<td>.1</td>
</tr>
<tr>
<td>BIO 18</td>
<td>Human Physiology</td>
<td>.4</td>
</tr>
<tr>
<td>RET 36</td>
<td>Retail Merchandising 2</td>
<td>.3</td>
</tr>
<tr>
<td>RET 41</td>
<td>Retail Operations</td>
<td>.2</td>
</tr>
<tr>
<td>RET 43</td>
<td>Advertising &amp; Sales Promotion</td>
<td>.3</td>
</tr>
<tr>
<td>†RET 51</td>
<td>Cooperative Work Experience</td>
<td>.3</td>
</tr>
<tr>
<td>‡ORI 42</td>
<td>Retailing Orientation</td>
<td>.2</td>
</tr>
<tr>
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</table>

* SPH 01, Speech Clinic, may be required (as determined by Department of Speech).
** 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 30 for those with Trigonometry who intend to transfer.
† Or RET 53, Current Retailing Concepts (2 credits) for Evening Session students only.
‡ May be waived for Evening Session students with approval of 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.
**Business Administration—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.

1. **Curriculum Pattern for the Accounting and Management Options**
*(Transfer to Baruch College)*

67-69 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>ENG 13</td>
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<td>HLT 11-81</td>
<td>HLT 11-81</td>
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<tr>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>MTH 30</td>
</tr>
<tr>
<td>MTH 31</td>
<td>ACC 11</td>
</tr>
<tr>
<td>RET 11</td>
<td>BUS 51</td>
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<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>ECO 21 or 22</td>
<td>MUS 11-33</td>
</tr>
<tr>
<td>†</td>
<td>ART</td>
</tr>
<tr>
<td>ACC 12</td>
<td><strong>#</strong></td>
</tr>
<tr>
<td>BUS 41</td>
<td><strong>ACC 13</strong></td>
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<td><strong>Total</strong></td>
<td>LAW 41</td>
</tr>
<tr>
<td>17</td>
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</table>

* See language requirements for transfer to Baruch College, p. 67

** Students who have taken Advanced Algebra in high school may be exempt from Pre-Calculus Math by permission of Department of Mathematics. In this Instance, MTH 31 is required.

*** For Management option, substitute either DAT 30 or FIN 31 and RET 41.

* Choose from History or Philosophy (PHL 21), Political Science (GOV 21), Psychology (PSY 21), or Sociology (SOC 21).

† A student may choose one semester of any one of the sciences of Biology (BIO 11), Chemistry (CHM 11), or Physics (PHY 11).

** Choose from Political Science, Psychology, or Sociology.
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)
67-70 Credits required for A.A. Degree

<table>
<thead>
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<tr>
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<td>ENG 14</td>
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<tr>
<td>HLT 11-81</td>
<td>HLT 11-81</td>
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<tr>
<td>HIS 11 or 12</td>
<td>#</td>
</tr>
<tr>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>**MTH 30</td>
<td>ACC 11</td>
</tr>
<tr>
<td>MTH 31</td>
<td>RET 41</td>
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<td>RET 11</td>
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<td><strong>Course Title</strong></td>
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<tr>
<td>Fundamental Composition</td>
<td>Composition &amp; Prose</td>
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<tr>
<td>Physical Ed. (choose one)</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td>History of Western Civ.</td>
<td>Social Science</td>
</tr>
<tr>
<td>Modern Language</td>
<td>MUS 11-33 Music or</td>
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<tr>
<td>Pre-Calculus or</td>
<td>ART Art</td>
</tr>
<tr>
<td>Analytic Geometry and</td>
<td>SPH 12 Advanced Speech</td>
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<tr>
<td>Calculus</td>
<td># Social Science</td>
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<tr>
<td>Marketing</td>
<td>LAW 41 Business Law</td>
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<tbody>
<tr>
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<tr>
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<td>MUS 11-33 Music or</td>
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<td>HLT 21-81</td>
<td>ART Art</td>
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<tr>
<td>ECO 21</td>
<td>SPH 12 Advanced Speech</td>
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<tr>
<td>† Science</td>
<td># Social Science</td>
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<tr>
<td>BUS 41</td>
<td>LAW 41 Business Law</td>
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<td>RET 33</td>
<td>RET 35 Retail Merchandising</td>
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<td><strong>Course Title</strong></td>
<td><strong>Course Title</strong></td>
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<tr>
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<td>Economics</td>
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<td>Finance</td>
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<td>Business Statistics</td>
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</tbody>
</table>

* See language requirements for transfer to Baruch College, p.67
** Students who have taken Advanced Algebra in high school may be exempt from MTH 30 with permission of Department of Mathematics. In this instance, MTH 31 is required.
# Choose from History, Philosophy (PHL 21), Political Science (GOV 21), Psychology (PSY 21), or Sociology (SOC 21).
† A student may choose one semester of Biology (BIO 11), Chemistry (CHM 11) or Physics (PHY 11).
§ 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.
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 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.

Curriculum Pattern for the H. S. Teaching Option: Bookkeeping and Accounting
(Transfer to Hunter College)
71-74 Credits required for A.A. Degree

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**First Semester**

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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>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>MTH 14</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 (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.

1. Curriculum Pattern for H. S. Teaching Option: Bookkeeping and Accounting
(Transfer to Baruch College)
67-70 Credits for A.A. Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11-81</td>
<td>Intro. to Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>*</td>
<td>Modern Language</td>
<td>4</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>**MTH 30</td>
<td>Pre-Calculus</td>
<td>4</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>**Total 18</td>
<td></td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ECO 21 or 22</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>†</td>
<td>Science</td>
<td>4</td>
</tr>
<tr>
<td>ACC 12</td>
<td>Fundamental Accounting 2</td>
<td>4</td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization and</td>
<td>3</td>
</tr>
<tr>
<td>Management</td>
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<tr>
<td>ENG 14</td>
<td>Composition &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
</tr>
<tr>
<td>*</td>
<td>Modern Language</td>
<td>4</td>
</tr>
<tr>
<td>#</td>
<td>History or Social Science</td>
<td>3</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting 1</td>
<td>4</td>
</tr>
<tr>
<td>RET 11</td>
<td>Marketing</td>
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</tr>
<tr>
<td>MUS 11-33</td>
<td>Music Course or</td>
<td></td>
</tr>
<tr>
<td>or ART</td>
<td>Art Course</td>
<td>1-3</td>
</tr>
<tr>
<td>or 22</td>
<td>Social Science</td>
<td>3</td>
</tr>
<tr>
<td>ACC 13</td>
<td>Intermediate Accounting 1</td>
<td>4</td>
</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ORI 41</td>
<td>Accounting Orientation</td>
<td>0</td>
</tr>
<tr>
<td>ORI 41</td>
<td>**Total 14-17</td>
<td></td>
</tr>
</tbody>
</table>

* See language requirements for transfer to Baruch College, p.67
** Students who have taken Advanced Algebra in high school may be exempt from Pre-Calculus Math by permission of Department of Mathematics. In this instance, MTH 31 is required.
# Choose from History or Philosophy (PHL 21), Political Science (GOV 21), Psychology (PSY 21), or Sociology (SOC 21).
† A student may choose one semester of Biology (BIO 11), Chemistry (CHM 11), or Physics (PHY 11).
== Choose from Political Science, Psychology, or Sociology.
2. Curriculum Pattern for H. S. Teaching Option: Retailing (Distributive Education)  
(Transfer to Baruch College)  
68-69 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><strong>Course Title</strong></td>
<td><strong>Course Title</strong></td>
</tr>
<tr>
<td>ENG 13</td>
<td>SPH 11</td>
</tr>
<tr>
<td>HLT 11-81</td>
<td>ENG 14</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>HLT 11-81</td>
</tr>
<tr>
<td>*</td>
<td>#</td>
</tr>
<tr>
<td><strong>MTH 30</strong></td>
<td>*</td>
</tr>
<tr>
<td>BUS 11</td>
<td>RET 11</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 21 or 22</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>†</td>
<td>Science</td>
<td>4</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting</td>
<td>4</td>
</tr>
<tr>
<td>RET 33</td>
<td>Buying Techniques</td>
<td>3</td>
</tr>
<tr>
<td>RET 13</td>
<td>Textiles</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
<td><strong>18</strong></td>
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</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>MUS 11-33</td>
<td>Music Course or</td>
<td>1</td>
</tr>
<tr>
<td>ART</td>
<td>Art Course</td>
<td>1</td>
</tr>
<tr>
<td><strong>Social Science</strong></td>
<td><strong>3</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>RET 31</td>
<td>Salesmanship</td>
<td>2</td>
</tr>
<tr>
<td>RET 35</td>
<td>Retail Merchandising</td>
<td>3</td>
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<tr>
<td>ORI 42</td>
<td>Senior Orientation</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>12</strong></td>
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</tbody>
</table>

* See language requirements for transfer to Baruch College, p.67
** Students who have taken Advanced Algebra in high school may be exempt from MTH 30 with permission of Department of Mathematics. In this Instance, MTH 31 is required.
† A student may choose one semester of Biology, Chemistry or Physics.
# Choose from History or Philosophy (PHL 21), Political Science (GOV 21), Psychology (PSY 21), or Sociology (SOC 21).
** Choose from Political Science, Psychology, or Sociology.
DATA PROCESSING
Curriculum Coordinator: Prof. M. May

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.

The Data Processing Curriculum provides a well-grounded program of:
- General Education in Liberal Arts and Sciences
- Business Background Preparation
- Data Processing Specialization

Curriculum Pattern for Data Processing Programming and Systems Option
70 Credits required for A.A.S. Degree

<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>Fundamental Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Western Civ. 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DAT 30</td>
<td>Introduction to Systems</td>
<td>4</td>
<td></td>
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</tbody>
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Total 17

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 14</td>
<td>Composition &amp; Prose</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Western Civ. 2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting 1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>DAT 40</td>
<td>Basic Computer Programming</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Total 18

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACC 12</td>
<td>Fundamental Accounting 2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BUS 41</td>
<td>Business Statistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DAT 41</td>
<td>Advanced Programming</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>DAT 31</td>
<td>Advanced Systems Analysis</td>
<td>4</td>
<td></td>
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</table>

Total 18

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART11or12</td>
<td>Introduction to Art or Music</td>
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<td></td>
</tr>
<tr>
<td>MUS11or12</td>
<td>Introduction to Music</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Science</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ACC 14</td>
<td>Cost Accounting</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DAT 42</td>
<td>Advanced Programming</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>*ORI 46</td>
<td>Senior Orientation</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Total 17

* Entering students offering one or two years of high school math will take MTH 11 and MTH 13; entering students offering 2½ years of high school math will take MTH 16 and MTH 13; entering students offering 3 years of high school math will take MTH 17 and MTH 13.

* 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.
LANGUAGE REQUIREMENTS FOR BUSINESS AND COMMERCE TRANSFER TO BARUCH COLLEGE

A student who has completed 3 years of a modern foreign language in high school is excused from the language requirement. He should arrange with the curriculum coordinator for substitution of other courses to satisfy degree requirements.

All students who have completed less than 3 years of French, German, Italian, Russian, or Spanish and intend to continue the language studied in high school are required to take a placement examination. The student will be assigned to the appropriate course level. Spanish is recommended as a foreign language for those intending to teach.

### Table

<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>2-2½ years one modern language</td>
<td>Continue H.S.</td>
<td>13 (and arrange for course substitution with</td>
<td>No credit for 11 or 12 if required by Placement</td>
</tr>
<tr>
<td></td>
<td>language</td>
<td>curriculum coordinator)</td>
<td>Examination.</td>
</tr>
<tr>
<td>2-2½ years one modern language</td>
<td>Start new</td>
<td>11, 12</td>
<td>13 may be taken as BCC elective.</td>
</tr>
<tr>
<td></td>
<td>language 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1½ years one modern language</td>
<td>Continue H.S.</td>
<td>12, 13</td>
<td>No credit for 11 if required by Placement</td>
</tr>
<tr>
<td></td>
<td>language</td>
<td></td>
<td>Examination.</td>
</tr>
<tr>
<td>1-1½ years one modern language</td>
<td>Start new</td>
<td>11, 12</td>
<td>13 may be taken as BCC elective.</td>
</tr>
<tr>
<td></td>
<td>language 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latin or classical Greek</td>
<td>Start new</td>
<td>11, 12</td>
<td>Students will receive credit for 11 and 12 with-</td>
</tr>
<tr>
<td>or less than 1 year of modern language</td>
<td>language 11</td>
<td></td>
<td>out making up condition.</td>
</tr>
</tbody>
</table>

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.
CHEMICAL TECHNOLOGY
Curriculum Coordinator: Dr. C. Polowczyk

The programs in Chemical Technology 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 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: Chemical Technology; Pre-Pharmacy Option, leading to the third year of a College of Pharmacy, and the Plastics Technology Option.

The Pre-Pharmacy option is a two-year course for which students receive complete 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. Vocational opportunities immediately upon graduation include laboratory technician, market researcher, and research assistant. With further training, a student may pursue such occupations as pharmacist, chemical salesman, laboratory supervisor, and production supervisor.

The Plastics Technology option covers the theory and skills of all phases of plastic processing, machine operations and laboratory testing methods. Graduates will be capable of directing and planning the use of synthetic materials for industrial and consumer applications as well as determining product design. Students develop a general knowledge of the chemical and technological characteristics of the plastic groups, as applied to fabrication methods ranging from preparation of the raw materials, through its processing, to the finished product. Students may continue studies at other institutions leading to advanced degrees in industrial arts education and plastics engineering.

Students interested in a professional career in chemistry or chemical engineering should take the Liberal Arts and Sciences or the Engineering Science program.
1. Curriculum Pattern for Chemical Technology
69 Credits required for A.A.S. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td><strong>Course No.</strong></td>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td>ART11 or 12</td>
<td>ENG 14</td>
</tr>
<tr>
<td>MUS11 or 12</td>
<td>HLT 91</td>
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<tr>
<td>ENG 13</td>
<td>MUS 11</td>
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<tr>
<td>SPH 11</td>
<td>CHM 22</td>
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<td>MTH 16</td>
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<td>PHY 21</td>
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<td>11</td>
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<table>
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<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>
</tr>
<tr>
<td>HIS 12</td>
<td>CHM 32</td>
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<td>CHM 31</td>
<td>CHM 43</td>
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<td>CHM 33</td>
<td>CHM 45</td>
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<td>PHY 22</td>
<td>CHM 44</td>
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2. Curriculum Pattern for Pre-Pharmacy Option**
68 Credits required for A.A.S. 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>ENG 14</td>
</tr>
<tr>
<td>or 12</td>
<td>HLT 91</td>
</tr>
<tr>
<td>ENG 13</td>
<td>MUS 11 or 12</td>
</tr>
<tr>
<td>SPH 11</td>
<td>MTH 16</td>
</tr>
<tr>
<td>HLT 11</td>
<td>PHY 21</td>
</tr>
<tr>
<td>BIO 11</td>
<td>CHM 12</td>
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<td>CHM 11</td>
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<table>
<thead>
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<th>Third Semester</th>
<th>Fourth Semester</th>
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</thead>
<tbody>
<tr>
<td><strong>Course No.</strong></td>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td>HIS 11</td>
<td>CHM 32</td>
</tr>
<tr>
<td>CHM 31</td>
<td>CHM 43</td>
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<td>CHM 33</td>
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<td>PHY 11</td>
<td>Electives</td>
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<td>Total</td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>

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

** 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.
### 3. Curriculum Pattern for Plastics Technology

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

#### 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>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Western Civ. 1</td>
<td>3</td>
</tr>
<tr>
<td>CHM 15</td>
<td>Modern Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MEC 11</td>
<td>Engineering Graphics 1</td>
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</tr>
<tr>
<td>PLS 11</td>
<td>Fundamentals of Plastics</td>
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<tr>
<td>MTH 11</td>
<td>Intro. College Mathematics 1</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
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</table>

#### Second Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 14</td>
<td>Composition &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td>CHM 24</td>
<td>Plastics Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>MEC 21</td>
<td>Engineering Mfg. Processes</td>
<td>2</td>
</tr>
<tr>
<td>PLS 12</td>
<td>Materials Compounding and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>MTH 16</td>
<td>Intro. College Mathematics 2</td>
<td>3</td>
</tr>
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<td></td>
<td><strong>Total</strong></td>
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#### Third Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PHY 24</td>
<td>Technical Physics 1</td>
<td>4</td>
</tr>
<tr>
<td>PLS 31</td>
<td>Plastic Processing 1</td>
<td>3</td>
</tr>
<tr>
<td>PLS 35</td>
<td>Materials Engineering</td>
<td>2</td>
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<tr>
<td>PLS 37</td>
<td>Extrusion Technology</td>
<td>3</td>
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<td>SPH 11</td>
<td>Speech Fundamentals</td>
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#### Fourth Semester

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<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>PLS 32</td>
<td>Plastic Processing 2</td>
<td>3</td>
</tr>
<tr>
<td>PLS 36</td>
<td>Plastics Products Design</td>
<td>2</td>
</tr>
<tr>
<td>PLS 38</td>
<td>Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Western Civ. 2</td>
<td>3</td>
</tr>
<tr>
<td>PLS 41</td>
<td>Materials Testing Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>ART 11 or 12</td>
<td>Introduction to Art or Music</td>
<td>1</td>
</tr>
<tr>
<td>MUS 11 or 12</td>
<td>Introduction to Music</td>
<td>1</td>
</tr>
<tr>
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</tr>
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</table>
In 1969, Bronx Community College became the first community college in New York State to offer an Education Associate curriculum in early childhood and elementary education, leading to an Associate in Applied Science degree transferrable to a four-year baccalaureate program.

The Education Associate program, conducted in the late afternoons and evenings, allows designated kindergarten level assistant teachers employed by the Board of Education of the City of New York to participate in a two-year transfer program which meets license requirements for the position of associate teacher. Assistant teachers employed by the Board of Education, but who have not been declared eligible for Board of Education tuition support, may enroll on a space available basis by paying the Civil Service tuition discount rate. At present the program admits only Board of Education employed assistant teachers.

Curriculum Pattern for Education Associate
(The first two years of the Early Childhood or Elementary Education sequence)
66 Credits required for the A.A.S. Degree

Core Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENG 14</td>
<td>Composition &amp; Prose</td>
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</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>*MTH 11</td>
<td>Intro. College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>†BIO 11</td>
<td>General Biology</td>
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</tr>
<tr>
<td>HIS 11</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Western Civ. 2</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
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<tr>
<td>EDU 11</td>
<td>Seminar &amp; Practicum in Ed.</td>
<td>4</td>
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<tr>
<td></td>
<td>&amp; the Behavioral Sciences</td>
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<tr>
<td>EDU 21</td>
<td>Seminar &amp; Practicum in Ed.</td>
<td>4</td>
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<tr>
<td></td>
<td>&amp; Communication</td>
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<tr>
<td>EDU 31</td>
<td>Seminar &amp; Practicum in Ed.</td>
<td>4</td>
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<tr>
<td></td>
<td>&amp; the Art Forms</td>
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Distribution Electives

<table>
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<th>Elective</th>
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<tr>
<td>Art and Music</td>
<td>2</td>
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<tr>
<td>English and Speech</td>
<td>4</td>
</tr>
<tr>
<td>Social Science and Behavioral Sciences**</td>
<td>9</td>
</tr>
<tr>
<td>Electives#</td>
<td>15</td>
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</tbody>
</table>

Total 66

* MTH 11 will satisfy requirement for the A.A.S. degree. City University four-year colleges require MTH 13, Survey of Mathematics I. Transfer students should take MTH 13 in place of or in addition to MTH 11.

† CHM 11, General College Chemistry, or PHY 11, College Physics 1, may be offered as substitutes. SCI 11, Principles of Science, is not acceptable at Lehman College.

** Courses in the area of education can be included.

* Electives must be chosen from the Liberal Arts and Science areas.
ENGINEERING SCIENCE (The first two years of the Engineering sequence)
Curriculum Coordinator: Prof. F. J. Berger

The Engineering Science program is designed for students with a special interest in engineering, architecture, or physical science. Scientists and engineers need rigorous preparation in mathematics and basic science. In addition, 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. Graduates of this curriculum will be accepted as third year students of the School of Engineering at The City College. Specific transfer arrangements have been made with 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.

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.

Curriculum Pattern for Engineering Science
69 Credits required for the 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 or 12</td>
<td>ENG 14</td>
</tr>
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<td>MUS 11 or 12</td>
<td>CHM 12</td>
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<tr>
<td>ENG 13</td>
<td>MTH 32</td>
</tr>
<tr>
<td>HLT 11</td>
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<tr>
<td>*CHM 11</td>
<td>PHY 32</td>
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<tr>
<td>PHY 31</td>
<td>MEC 11</td>
</tr>
<tr>
<td>MTH 31</td>
<td></td>
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<tr>
<td>ORI 15</td>
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<table>
<thead>
<tr>
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<th>Fourth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course No.</strong></td>
<td><strong>Course No.</strong></td>
</tr>
<tr>
<td>HIS 11</td>
<td>HIS 12</td>
</tr>
<tr>
<td>MTH 33</td>
<td>SPH 11</td>
</tr>
<tr>
<td></td>
<td>HLT 91</td>
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<tr>
<td>PHY 33</td>
<td>MTH 34</td>
</tr>
<tr>
<td>PHY 34</td>
<td><strong>MEC 51</strong></td>
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<tr>
<td>MEC 12</td>
<td>PHY 61</td>
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<td></td>
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<tr>
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<td>Total</td>
</tr>
</tbody>
</table>

* Students planning to enter the Computer Science program at The City College may substitute BIO 11 and 12 for CHM 11 and 12.

** For students planning to major in electrical engineering, chemical engineering, computer sciences, two to four credits of electives may be selected as a substitute for MEC 51 with approval of Curriculum Coordinator.
ENGINEERING TECHNOLOGIES

Curriculum Coordinator: Prof. F. J. Berger

The programs in the engineering technologies prepare the student for immediate employment in a career in the electrical or mechanical engineering fields.

Students who plan to continue their studies may transfer directly to a four-year college and earn a baccalaureate degree in Engineering Technology. It is possible to transfer within Bronx Community College to the Engineering Science curriculum which is directly transferable within the City University of New York for a baccalaureate degree in Engineering. A special opportunity exists for students interested in a career in teaching industrial arts on the secondary level.
ELECTRICAL TECHNOLOGY

Electrical Engineering Technology is one of the fastest-growing professions. The rapidity of technological advance has created a serious shortage of trained personnel.

Electrical engineering technicians are needed to design, build, test and maintain complex electronic equipment such as computers, control systems, communications systems, and medical devices.

Curriculum Pattern for Electrical Technology
71 Credits required for the A.A.S. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
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<th>Second Semester</th>
<th></th>
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<tbody>
<tr>
<td>Course No.</td>
<td>Title</td>
<td>Credit</td>
<td>Course No.</td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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<td>ENG 14</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1</td>
<td>MTH 17</td>
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<tr>
<td>MTH 16</td>
<td>Intro. College Mathematics</td>
<td>3</td>
<td>PHY 22</td>
</tr>
<tr>
<td>PHY 21</td>
<td>Technical Physics 1</td>
<td>4</td>
<td>ELC 21</td>
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<tr>
<td>ELC 11</td>
<td>Intro. to Electric Circuits</td>
<td>4</td>
<td>ELC 25</td>
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<td>MEC 11</td>
<td>Basic Engineering Graphics 1.2</td>
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<td>ORI 14</td>
<td>Tech. College Orientation</td>
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</tr>
<tr>
<td>Third Semester</td>
<td></td>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Social Studies Elective</td>
<td>3</td>
<td>ART 11 or 12</td>
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<tr>
<td>MTH 18</td>
<td>Mathematical Analysis</td>
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<tr>
<td>ELC 35</td>
<td>Communic. Electronics</td>
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<td>SPH 11</td>
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<tr>
<td>ELC 38</td>
<td>Electric Product Design</td>
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<tr>
<td>*ELC 72</td>
<td>Elec. Machines &amp; Power or</td>
<td></td>
<td>ELC 45</td>
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<tr>
<td>ELC 82</td>
<td>Networks &amp; Trans. Lines or</td>
<td></td>
<td>*ELC 75</td>
</tr>
<tr>
<td>ELC 92</td>
<td>Pulse &amp; Digital Circuits</td>
<td>4</td>
<td>ELC 85</td>
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<td>ELC 95</td>
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<td>ELC 98</td>
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<td>**ORI 44</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

* Power and Controls Option students take ELC 72, 75 and 78; Communications Option students take ELC 82, 85 and 88; Computer Option students take ELC 92, 95 and 98.

** For full-time matriculated students only.

* May be fulfilled by one of the following three methods: HIS 11 and 12; HIS 21 and 22; or HIS 12 and one additional course chosen from HIS 22, 25, 27, 31, and 35, ECO 21, POL 21, PHL 21, PSY 21, and SOC 21.
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 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.

Students who plan to continue their studies may transfer directly to a four-year college and earn a baccalaureate degree in Engineering Technology.

Curriculum Pattern for Mechanical Technology
69 Credits required for A.A.S. Degree

<table>
<thead>
<tr>
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<th>Second Semester</th>
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<tbody>
<tr>
<td>Course No.</td>
<td>Course Title</td>
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<tr>
<td>SPH 11</td>
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<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
</tr>
<tr>
<td>MTH 16</td>
<td>Intro. College Mathematics</td>
</tr>
<tr>
<td>PHY 21</td>
<td>Technical Physics 1</td>
</tr>
<tr>
<td>**ORI 14</td>
<td>Tech. College Orientation</td>
</tr>
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<tbody>
<tr>
<td>Course No.</td>
<td>Course Title</td>
</tr>
<tr>
<td>CHM 15</td>
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<tr>
<td>MEC 25</td>
<td>Prod. Proc. &amp; Numerical Control</td>
</tr>
<tr>
<td>MEC 28</td>
<td>Strength of Materials</td>
</tr>
<tr>
<td>MEC 31</td>
<td>Machine Design</td>
</tr>
<tr>
<td>MEC 33</td>
<td>Thermodynamics &amp; Fluid Dynamics</td>
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<tr>
<td>**ORI 44</td>
<td></td>
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<tr>
<td>Total</td>
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</tbody>
</table>

** For full-time matriculated students only.
* May be fulfilled by one of the following three methods: HIS 11 and 12; HIS 21 and 22; HIS 12 and one additional course chosen from HIS 22, 25, 27, 31, and 35, ECO 21, POL 21, PHL 21, PSY 21, and SOC 21.
LIBERAL ARTS AND SCIENCES
Curriculum Coordinator: Dr. R. L. Loughlin

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.

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)

† 64 Credits required for the A.A. Degree

Core Requirements

ENG 13 Fundamental Composition .... 3
SPH 11 Speech Fundamentals ........ 3
HLT 91 Critical Health Issues ......... 2
MTH 13, 17, 30, 31, or 41 Mathematics .......... 3-4

Modern Languages
Language 21 (for those continuing high school language)
Language 11 and 12 (for those starting new language who have one or more years of high school language)
Language 11, 12, and 13 (for those who have no high school language) .......... 4-12

HIS 11 or 12 History of Western Civ. ........ 3

† 48 credits must be taken in the humanities, the natural sciences and mathematics, and the social studies.

No credit given for repetition of language unit completed in high school.

Note: Students are advised to consult the requirements of the senior college of their choice.

Required areas of study

Natural Science and Mathematics. To be chosen from Math, Biology, Chemistry, Physics, Science (at least one course to be a laboratory science) .......... 7-8

Humanities—A. To be chosen from English and/or Speech—At least one course in English ........ 8-9

Humanities—B. To be chosen from Art or Music ....................... 3

Social Studies. To be chosen from Economics, History, Philosophy, Political Science, Psychology and Sociology ....................... 9

Physical Education. One course to be chosen from activity courses ........ 1

Total 28-30

Free Electives — To complete the required 64 credits

Up to 16 credits may be taken in any department or discipline. Any free electives beyond 16 credits must be in humanities, natural science and mathematics, and social sciences, plus Modern Language .......... 7-18

Total 64
Curriculum Pattern for Liberal Arts and Sciences (Transfer)

Afro-American and Puerto Rican Studies Option

68 Credits required for A.A. Degree

Core Requirements

** ENG 13 ** Fundamental Composition 3

** ENG 14 ** Composition & Prose 3

** HIS 12 ** History of Western Civ. 2 3

** SPH 11 ** Speech Fundamentals 3

### Modern Language ** 8-12

** HLT 11 ** Intro. to Physical Education 1

** HLT 21-81 ** Physical Ed. (Choose one) 1

** HLT 91 ** Critical Health Issues 2

** Mathematics & Science ** 10-12

** MTH 13,14 ** Survey of Mathematics 1, 2

** MTH 41 ** Probability & Statistics

** MTH 17 ** College Algebra

** MTH 31 ** Analytic Geometry & Calculus

** BIO 11,12 ** General Biology 1, 2

** CHM 11,12 ** General College Chemistry

** PHY 11,12 ** College Physics 1, 2

** SCI 11,12 ** Principles of Science 1, 2

** Distribution Electives **

Art and Music 2

Humanities (English, Speech, Languages) 8-12

Social Sciences 12

Free Electives 11-14

Total 68-71

** Language 21 and 22 for high school language continued in college (unless elementary language required by placement exam); Language 11, 12, and 21 for new language in college.

** Minimum of 10 credits chosen from courses enumerated, but must include a minimum of 3 credits in Math and a minimum of 3 credits in Science. Other Science and Math courses may be taken subject to prerequisites and the approval of the Committee on Academic Standing.

** Students are required to select a minimum of 16 credits from 22 credits of Distribution Electives in Afro-American, Puerto Rican, Ethnic and Urban Studies, of which 6 credits (2 courses) must be in English.

Curriculum Pattern for Liberal Arts and Sciences (Transfer)

Biology Option

69-70 Credits required for the A.S. Degree

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Western Civ. 1</td>
<td>3</td>
</tr>
<tr>
<td>CHM 11</td>
<td>General College Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>*MTH 30</td>
<td>Pre-Calculus Math or</td>
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</tr>
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<td>MTH 31</td>
<td>Analytic Geometry &amp; Calculus 1</td>
<td>4</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
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</tr>
<tr>
<td>** Total **</td>
<td>** 18 **</td>
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<thead>
<tr>
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<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENG 14</td>
<td>Composition &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Western Civ. 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 &amp; Calculus 1 or</td>
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</tr>
<tr>
<td>MTH 32</td>
<td>Analytic Geometry &amp; Calculus 2</td>
<td>5</td>
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<tr>
<td>MUS11or12</td>
<td>Introduction to Music or</td>
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<tr>
<td>ART11or12</td>
<td>Introduction to Art</td>
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</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Ed. (choose one)</td>
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</tr>
<tr>
<td>** Total **</td>
<td>** 17-18 **</td>
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</table>

* Students who have had Advanced Algebra must take MTH 31 and continue with MTH 32, 33.
**Third Semester**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>**</td>
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<td>MTH 32</td>
<td>Analytic Geometry &amp; Calculus 2 or</td>
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<td>MTH 33</td>
<td>Analytic Geometry &amp; Calculus 3</td>
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</tr>
<tr>
<td>BIO 11</td>
<td>General Biology 1</td>
<td>4</td>
</tr>
<tr>
<td>†CHM 31</td>
<td>Organic Chemistry 1 or</td>
<td></td>
</tr>
<tr>
<td>PHY 11</td>
<td>College Physics 1</td>
<td>4</td>
</tr>
<tr>
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<td><strong>Total</strong></td>
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</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
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<tbody>
<tr>
<td>**</td>
<td>Modern Language</td>
<td>4</td>
</tr>
<tr>
<td>BIO 12</td>
<td>General Biology 2</td>
<td>4</td>
</tr>
<tr>
<td>†CHM 32</td>
<td>Organic Chemistry 2 or</td>
<td></td>
</tr>
<tr>
<td>PHY 12</td>
<td>College Physics 2</td>
<td>4</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Elective</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
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</tbody>
</table>

Curriculum Pattern for Liberal Arts and Sciences (Transfer)

Chemistry Option

68-70 Credits required for A.S. Option

**First Semester**

<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>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Western Civ. 1</td>
<td>3</td>
</tr>
<tr>
<td>CHM 11</td>
<td>General College Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>*MTH 30</td>
<td>Pre-Calculus Mathematics or</td>
<td></td>
</tr>
<tr>
<td>MTH 31</td>
<td>Analytic Geometry &amp; Calculus 1</td>
<td>4</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>3</td>
</tr>
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**Second Semester**

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<thead>
<tr>
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<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 14</td>
<td>Composition &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Western Civ. 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 &amp; Calculus 1 or</td>
<td>4</td>
</tr>
<tr>
<td>MTH 32</td>
<td>Analytic Geometry &amp; Calculus 2</td>
<td>5</td>
</tr>
<tr>
<td>MUS11or12</td>
<td>Introduction to Music or</td>
<td></td>
</tr>
<tr>
<td>ART 11or12</td>
<td>Introduction to Art</td>
<td>1</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
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<td><strong>Total</strong></td>
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**Third Semester**

<table>
<thead>
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<th>Course Title</th>
<th>Credit</th>
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</tr>
<tr>
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<td>Analytic Geometry &amp; Calculus 2 or</td>
<td></td>
</tr>
<tr>
<td>MTH 33</td>
<td>Analytic Geometry &amp; Calculus 3</td>
<td></td>
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<tr>
<td>CHM 31</td>
<td>Organic Chemistry 1</td>
<td>4</td>
</tr>
<tr>
<td>§CHM 33</td>
<td>Quantitative Analysis</td>
<td>4</td>
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**Fourth Semester**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>**</td>
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</tr>
<tr>
<td>CHM 32</td>
<td>Organic Chemistry</td>
<td>4</td>
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<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Elective</strong></td>
<td><strong>3</strong></td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>16-17</strong></td>
</tr>
</tbody>
</table>

**See Language Requirements for Liberal Arts & Sciences A.S. degree, p.81**

† 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 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 sciences, history or humanities.

§ The elective credits in science, humanities, history or social sciences must be selected courses in these areas with the approval of the student’s curriculum adviser.
Curriculum Pattern for Liberal Arts and Sciences (Transfer)
Mathematics Option
68-69 Credits required for the A.S. 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>ENG 13</td>
<td>ENG 14</td>
</tr>
<tr>
<td>HIS 11</td>
<td>HIS 12</td>
</tr>
<tr>
<td>MTH 31</td>
<td>MTH 32</td>
</tr>
<tr>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>MUS 11 or MUS 12</td>
<td>MUS 11 or MUS 12</td>
</tr>
<tr>
<td>ART 11 or ART 12</td>
<td>ART 11 or ART 12</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>HLT 21-81</td>
</tr>
<tr>
<td>Total 18</td>
<td>**</td>
</tr>
</tbody>
</table>

* Students who have not completed Advanced Algebra are required to complete MTH 30, Pre-Calculus Mathematics, as the prerequisite to MTH 31.
** The two years of science requirements must be fulfilled from PHY 31, 32, 33 and 34; or one year each of two of the following: BIO 11, 12; CHM 11, 12; PHY 11, 12, College Physics.
§ See Language Requirements for Liberal Arts & Sciences A.S. degree, page 81.
† 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)
Physics Option
64-68 Credits required for A.S. 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>ENG 13</td>
<td>ENG 14</td>
</tr>
<tr>
<td>HIS 11</td>
<td>HIS 12</td>
</tr>
<tr>
<td>PHY 31</td>
<td>PHY 32</td>
</tr>
<tr>
<td>MTH 31</td>
<td>MTH 32</td>
</tr>
<tr>
<td>HLT 11</td>
<td>HLT 91</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Elective</td>
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<tr>
<td>Total 18</td>
<td>**</td>
</tr>
</tbody>
</table>

* The two years of science requirements must be fulfilled from PHY 31, 32, 33 and 34; or one year each of two of the following: BIO 11, 12; CHM 11, 12; PHY 11, 12, College Physics.
The Curricula: Liberal Arts and Sciences / 61

**Third Semester**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>**</td>
<td>Modern Language</td>
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</tr>
<tr>
<td>MTH 33</td>
<td>Analytic Geometry &amp; Calculus 3</td>
<td>5</td>
</tr>
<tr>
<td>PHY 33</td>
<td>College Physics 3</td>
<td>4</td>
</tr>
<tr>
<td>§PHY 34</td>
<td>Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>**</td>
<td>Modern Language</td>
<td>4</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td>§PHY 41</td>
<td>Electricity &amp; Magnetism</td>
<td>3</td>
</tr>
<tr>
<td>t Elective</td>
<td></td>
<td>3-4</td>
</tr>
</tbody>
</table>

Total 17

* Students who have not completed Advanced Algebra are required to complete MTH 30, Pre-Calculus Mathematics, as the prerequisite to MTH 31.

** See Language Requirements for Liberal Arts & Sciences 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, history or social sciences, 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, Differential Equations; MTH 35, Vector Calculus and Linear Algebra.

**Fourth Semester**

<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>4</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td>§PHY 41</td>
<td>Electricity &amp; Magnetism</td>
<td>3</td>
</tr>
<tr>
<td>t Elective</td>
<td></td>
<td>3-4</td>
</tr>
</tbody>
</table>

Total 15-16

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.
MEDICAL LABORATORY TECHNOLOGY
Curriculum Coordinator: Prof. H. F. White

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
69 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 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Western Civ. 1</td>
<td>3</td>
</tr>
<tr>
<td>BIO 15</td>
<td>Zoology</td>
<td>4</td>
</tr>
<tr>
<td>CHM 11</td>
<td>Chemistry 1</td>
<td>4</td>
</tr>
<tr>
<td>MTH 16</td>
<td>Intro. College Mathematics</td>
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<td><strong>Total</strong></td>
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<table>
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<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 14</td>
<td>Composition &amp; Prose</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td>HIS 12</td>
<td>History of Western Civ. 2</td>
<td>3</td>
</tr>
<tr>
<td>MTH 17</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>BIO 25</td>
<td>Anatomy &amp; Physiology 1</td>
<td>4</td>
</tr>
<tr>
<td>CHM 12</td>
<td>Chemistry 2</td>
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<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ART11or12</td>
<td>Introduction to Art or Music</td>
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</tr>
<tr>
<td>MUS11or12</td>
<td>Introduction to Music</td>
<td>1</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>PSY 21</td>
<td>Psychology or Sociology</td>
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<tr>
<td>BIO 26</td>
<td>Anatomy &amp; Physiology 2</td>
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<td>BIO 35</td>
<td>Clinical Techniques 1</td>
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<tr>
<td>CHM 35</td>
<td>Organic Chemistry</td>
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<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BIO 41</td>
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<td>BIO 43</td>
<td>Microbiology</td>
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<tr>
<td>BIO 36</td>
<td>Clinical Techniques 2</td>
<td>2</td>
</tr>
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<td>CHM 41</td>
<td>Biochemistry</td>
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</table>
NURSING

Curriculum Coordinator: Prof. B. Perlmutter

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, 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.

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 Medical Center, Bronx-Lebanon Hospital Center, Lincoln Hospital, Veterans Administration Hospital, Bronx State Hospital, Fordham Hospital, Albert Einstein College of Medicine Hospital, and at the Bronx Municipal Hospital Center.

Students enjoy valuable supplementary experience through arrangements with other community agencies, such as nursery schools, nursing homes, public health agencies, home care programs and day care centers for the aged.

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.

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.

Curriculum Pattern for Nursing

70 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 13</td>
<td>English Composition 1</td>
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</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
</tr>
<tr>
<td>PSY 21</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 21</td>
<td>Human Anatomy &amp; Physiology</td>
<td>4</td>
</tr>
<tr>
<td>NUR 11</td>
<td>Nursing 1</td>
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<table>
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<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>HLT 21-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
</tr>
<tr>
<td>BIO 28</td>
<td>Bacteriology</td>
<td>3</td>
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<td>NUR 12</td>
<td>Nursing 2</td>
<td>10</td>
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Third Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ART11 or 12</td>
<td>Introduction to Art or</td>
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</tr>
<tr>
<td>MUS11 or 12</td>
<td>Introduction to Music</td>
<td>1</td>
</tr>
<tr>
<td>SOC 21</td>
<td>Sociology</td>
<td>3</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>17-18</td>
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</tbody>
</table>

* Choose from English, History, or Modern Language.
** Choose from English, Science, Mathematics, Modern Language, Speech, Music, Art, Social Sciences, or Physical Education.

Fourth Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
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<td>Principles of Science</td>
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</tr>
<tr>
<td>NUR 14</td>
<td>Nursing</td>
<td>10</td>
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<tr>
<td>** Elective</td>
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<td>3-4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>17-18</td>
</tr>
</tbody>
</table>

PERFORMING ARTS-MUSIC

Curriculum Coordinator: Prof. M. Salzberg

With the renaissance of the arts, there is a growing need for musicians, especially music teachers. 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, theatre, broadcasting and telecasting.

Students can earn an Associate in Applied Science degree in Music in a two-year program at Bronx Community College, tuition free. This includes free private lessons in instrumental or vocal areas of the students' choice.

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.
The student who has earned an A.A.S. in Music at Bronx Community College with a grade average of at least B in music, and who has also satisfied the course requirements for Richmond College, will be assured automatic admission into the music program at Richmond College.

Students who receive the A.A.S. degree in Music at BCC will be granted automatic transfer to Lehman College in the program leading to a B.S. degree in Music.

Curriculum Pattern for Performing Arts-Music
71 Credits required for A.A.S. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>Course No.</td>
<td>Course Title</td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition 1</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Western Civ. 1</td>
</tr>
<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
</tr>
<tr>
<td>MUS 21</td>
<td>Choral Performance 1 or</td>
</tr>
<tr>
<td>MUS 31</td>
<td>Orchestral Performance 1</td>
</tr>
<tr>
<td>MUS 83</td>
<td>Private Instruction 1</td>
</tr>
<tr>
<td>MUS 41</td>
<td>Theory 1</td>
</tr>
<tr>
<td>MUS 51</td>
<td>Ear Training 1</td>
</tr>
<tr>
<td>MUS 61</td>
<td>Keyboard 1</td>
</tr>
<tr>
<td>MUS 71</td>
<td>Secondary Piano 1</td>
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<tbody>
<tr>
<td>SCI 11</td>
<td>Science 1</td>
</tr>
<tr>
<td>* HLT 23-81</td>
<td>Language 1</td>
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<tr>
<td>MUS 23</td>
<td>Choral Performance 3 or</td>
</tr>
<tr>
<td>MUS 33</td>
<td>Orchestral Performance 3</td>
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<td>Private Instruction 3</td>
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<td>MUS 43</td>
<td>Theory 3</td>
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<td>MUS 53</td>
<td>Ear Training 3</td>
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<td>MUS 63</td>
<td>Keyboard 3</td>
</tr>
<tr>
<td>MUS 96</td>
<td>Chamber Chorus 2 or</td>
</tr>
<tr>
<td>MUS 92</td>
<td>Chamber Orchestra 2</td>
</tr>
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</table>

Total 18

• To be taken, if needed, to meet the degree requirements. Otherwise, may be used as elective credits; or another elective may be substituted.

• Or any college level course consistent with student's high school preparation.
SECRETARIAL STUDIES
Curriculum Coordinator: Prof. K. Takei

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.

Curriculum Pattern for General Secretary Option
66-69** Credits required for A.A.S. Degree

<table>
<thead>
<tr>
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<tbody>
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<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>ENG 13</td>
<td>Composition &amp; Prose</td>
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<tr>
<td>HLT 11</td>
<td>Health &amp; Physical Education</td>
</tr>
<tr>
<td>HIS 11</td>
<td>History of Western Civ. 2</td>
</tr>
<tr>
<td>BIO 18</td>
<td>History of Western Civ. 1</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Intro. to College Mathematics</td>
</tr>
<tr>
<td>*STE 11</td>
<td>Fundamentals of Business Management</td>
</tr>
<tr>
<td>or 15</td>
<td>Elective</td>
</tr>
<tr>
<td>*TYP 11</td>
<td>Typing 2</td>
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<table>
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<tr>
<th>Third Semester</th>
<th>Fourth Semester</th>
</tr>
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<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>SPH 11</td>
<td>Introduction to Art or Music</td>
</tr>
<tr>
<td>ECO 21</td>
<td>Psychology</td>
</tr>
<tr>
<td>FIN 31</td>
<td>Elective</td>
</tr>
<tr>
<td>RET 11</td>
<td>Business Law</td>
</tr>
<tr>
<td>STE 11 or 17</td>
<td>Business Law or Buying Techniques</td>
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<tr>
<td>TYP 11</td>
<td>Advertising &amp; Sales Promotion</td>
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<tr>
<td>BUS 51</td>
<td>Secretarial Practice</td>
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<td>RET 41</td>
<td>Secretarial Senior Orientation</td>
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<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
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</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 64 credits; other require the 67 credits.

§ Or MTH 16 for those with Intermediate Algebra; or MTH 30 for those with Trigonometry who intend to transfer.

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

† May be waived for Evening Session students with approval of curriculum adviser.
## Curriculum Pattern for Legal Secretary Option 69-71** Credits required for A.A.S. Degree

### First Semester

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<thead>
<tr>
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<th>Course Title</th>
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<tr>
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<td>Fundamental Composition</td>
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<td>Intro. to Physical Education</td>
<td>1</td>
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<tr>
<td>HIS 11</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>BIO 18</td>
<td>Human Physiology</td>
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<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
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<tr>
<td>*STE 11 or 15</td>
<td>Stenography 1 (Gregg or Pitman)</td>
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<td>*TYP 11</td>
<td>Typing</td>
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### Second Semester

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 14</td>
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<td>Physical Education (choose one)</td>
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<tr>
<td>HIS 12</td>
<td>History of Western Civ.</td>
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</tr>
<tr>
<td>§MTH 11</td>
<td>Intro. College Mathematics</td>
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<tr>
<td>ACC 11</td>
<td>Fundamental Accounting</td>
<td>4</td>
</tr>
<tr>
<td>STE12 or 16</td>
<td>Stenography 2</td>
<td>3</td>
</tr>
<tr>
<td>TYP 12</td>
<td>Typing 2</td>
<td>2</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
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### Third Semester

<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>
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<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>STE 13 or 17</td>
<td>Stenography</td>
<td>3</td>
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<td>TYP 13</td>
<td>Typing</td>
<td>2</td>
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<tr>
<td>LAW 47</td>
<td>Legal Procedures</td>
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<tr>
<td>STE 31</td>
<td>Legal Stenography</td>
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**Total 17**

### Fourth Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
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<tr>
<td>MUS 11 or 12</td>
<td>Introduction to Music</td>
<td>1</td>
</tr>
<tr>
<td>*****</td>
<td>Elective</td>
<td>1-4</td>
</tr>
<tr>
<td>ECO 21</td>
<td>Economics</td>
<td>3</td>
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<tr>
<td>PSY 21</td>
<td>Psychology</td>
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<tr>
<td>STE 32</td>
<td>Legal Stenography</td>
<td>4</td>
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<tr>
<td>SEC 41</td>
<td>Secretarial Practice</td>
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<tr>
<td>**†ORI 43</td>
<td>Secretarial Senior Orientation</td>
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</table>

**Total 14-17**

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**Curriculum Pattern for Medical Secretarial Assistant Option**

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

### First Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENG 13</td>
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<td>HLT 11</td>
<td>Intro. to Physical Education</td>
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<tr>
<td>HIS 11</td>
<td>History of Western Civ.</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</td>
<td>2</td>
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<tr>
<td>ART 11 or 12</td>
<td>Introduction to Art or Music</td>
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<td>Introduction to Music</td>
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**Total 17**

### Second Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 14</td>
<td>Composition &amp; Prose</td>
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<tr>
<td>HLT 21-</td>
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<tr>
<td>HIS 12</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>§MTH 11</td>
<td>Intro. College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting</td>
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<tr>
<td>TYP 12</td>
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<tr>
<td>BIO 22</td>
<td>Medical Terminology</td>
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**Total 18**

### Third Semester

<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>
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<tr>
<td>ECO 21</td>
<td>Economics</td>
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<tr>
<td>TYP 13</td>
<td>Typing</td>
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</tr>
<tr>
<td>BIO 46</td>
<td>Clinical Techniques</td>
<td>2</td>
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<tr>
<td>PSY 21</td>
<td>Psychology</td>
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<td>SEC 34</td>
<td>Medical Office Practice</td>
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<td>SEC 37</td>
<td>Med. Office Communications</td>
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**Total 17**

### Fourth Semester

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<td>SOC 21</td>
<td>Sociology</td>
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<td>PSY 31</td>
<td>Abnormal Psychology</td>
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<td>LAW 45</td>
<td>Medical Law</td>
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<td>**†ORI 43</td>
<td>Secretarial Senior Orientation</td>
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</tbody>
</table>

**Total 16-17**

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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 16 for those with Intermediate Algebra; or MTH 30 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 Sciences, History, Science, Stenography, Mathematics, or Health and Physical Education.
Curriculum Pattern for School Secretary Option
67-69 Credits required for A.A.S. Degree

### First Semester

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
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<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
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<tr>
<td>HIS 11</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>BIO 11</td>
<td>Human Physiology</td>
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<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
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<tr>
<td>*STE 11 or 15</td>
<td>Stenography 1 (Gregg or Pitman)</td>
<td>3</td>
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<tr>
<td>*TYP 11</td>
<td>Typing 1</td>
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### Second Semester

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<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 14</td>
<td>Composition &amp; Prose</td>
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<tr>
<td>HLT 21-81</td>
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<td>§MTH 11</td>
<td>Intro. College Mathematics</td>
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<td>ACC 11</td>
<td>Fundamental Accounting</td>
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<tr>
<td>STE12or16</td>
<td>Stenography 2</td>
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<td>TYP 12</td>
<td>Typing 2</td>
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### Third Semester

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<tr>
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<th>Course Title</th>
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<tbody>
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</tr>
<tr>
<td>MUS11or12</td>
<td>Introduction to Music</td>
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</tr>
<tr>
<td>SPH 11</td>
<td>Speech Fundamentals</td>
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<tr>
<td>ECO 21</td>
<td>Economics</td>
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<td>**FIN 31</td>
<td>Principles of Finance</td>
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<tr>
<td>STE13or17</td>
<td>Stenography 3</td>
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<td>TYP 13</td>
<td>Typing 3</td>
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<td>SEC 47</td>
<td>Education Problems of School Secretaries</td>
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### Fourth Semester

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<th>Course Title</th>
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<td>STE 14or18</td>
<td>Stenography 4</td>
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<tr>
<td>SEC 48</td>
<td>Educational Problems of School Secretaries</td>
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<td>SEC 45</td>
<td>School Records &amp; Accounts</td>
<td>2</td>
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<td>SEC 41</td>
<td>Secretarial Practice</td>
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<td>†ORI 41</td>
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* 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 Sciences, Science, Mathematics, or Health and Physical Education.
§ Or MTH 16 for those with Intermediate Algebra; or MTH 30 for those with Trigonometry who intend to transfer.
† May be waived for Evening Session students with approval of his curriculum adviser.
SECRETARIAL TEACHING CURRICULA

Students who wish to teach secretarial studies in high schools may earn the A.A. degree at Bronx Community College and transfer into the third year at Baruch, Hunter or Lehman College, all of the City University of New York.

Curriculum Pattern for H.S. Teaching Option: Secretarial Studies
(Transfer to Hunter or Lehman College)
71-74 Crdlts required for A.A. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
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<td>Fundamental Composition</td>
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<tr>
<td>HLT 11</td>
<td>Intro. to Physical Education</td>
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</tr>
<tr>
<td>HIS 11</td>
<td>History of Western Civ.</td>
<td>3</td>
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<tr>
<td>*</td>
<td>Modern Language</td>
<td>4</td>
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<tr>
<td>**STE 11</td>
<td>Stenography 1 (Gregg or Pitman)</td>
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<td>**TYP 11</td>
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<th>Credit</th>
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<tbody>
<tr>
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<td>Composition &amp; Prose</td>
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<td></td>
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<tr>
<td>HLT 11-81</td>
<td>Physical Education (choose one)</td>
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<tr>
<td>HIS 12</td>
<td>History of Western Civ.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Modern Language</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>†MTH 13</td>
<td>Survey of Mathematics</td>
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</tr>
<tr>
<td>TYP 12</td>
<td>Typing 2</td>
<td>2</td>
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<td>HLT 21-81</td>
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<td>††SPH 11</td>
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<td>†</td>
<td>Science</td>
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<tr>
<td>STE13or17</td>
<td>Stenography 3</td>
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<tr>
<td>TYP 13</td>
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<td>BUS 51</td>
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<td>LAW 41</td>
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* See Language Requirements for transfer to Hunter College, page 67.
** 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 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 students with approval of curriculum adviser.
# Elective substitutions for exemptions based upon placement examinations: Maximum 13 credits.

- Modern Language | 4
ENG 15 Composition & Drama | 3
ENG 16 Composition & Poetry | 3
PSY 21 Psychology | 3
PHL 21 Intro. to Philosophy | 3
Curriculum Pattern for H.S. Teaching Option: Secretarial Studies
(Transfer to Baruch College)
68 Credits required for A.A. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
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<th>Second Semester</th>
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<tr>
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<td>ENG 14</td>
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<td>ENG 13</td>
<td>Fundamental Composition</td>
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<tr>
<td>*</td>
<td>Modern Language</td>
<td>4</td>
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<td>MUS 11-33</td>
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<td>HIS11or12</td>
<td>History of Western Civ.</td>
<td>3</td>
<td>ART</td>
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<td>*STE11or15</td>
<td>Stenography 1 (Gregg or Pitman)</td>
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<td>SPH 11</td>
<td>Speech Fundamentals</td>
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<tr>
<td>t</td>
<td>Science</td>
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<td>ACC 11</td>
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<tr>
<td>§MTH 30</td>
<td>Pre-Calculus Mathematics or</td>
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<tr>
<td>MTH 31</td>
<td>Analytic Geometry &amp; Calculus</td>
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<td>LAW 41</td>
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</table>

|               | **Total** 17-19 | |               | **Total** 16-18 |

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* See Language Requirements for transfer to Baruch College, page 67.
** 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 taken Advanced Algebra in high school may be exempt from Pre-Calculus Math with permission of Department of Mathematics. In this instance, MTH 31 is required.
† A student may choose one semester of Biology, Chemistry or Physics. Credit will not be given for Principles of Science (SCI 11 and 12) at Baruch College.
# Choose from History or Philosophy (PHL 21), Political Science (POL 21), Psychology (PSY 21), or Sociology (SOC 21).
** Choose from Political Science, Psychology, or Sociology.
EXPLANATION OF SYMBOLS

1. Prerequisites must be completed with a passing grade before the subsequent course may be taken.

2. Corequisites may be taken simultaneously, or before a given course.

AN EXPLANATION OF CREDIT

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

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.

1. 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.

2. 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.

3. 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.

4. 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

Chairman: Professor Henry F. White
Associate Professor: K. Prestwidge
Assistant Professors: F. Costello, F. Ford, J. Hayde, R. Heller, H. Hermo, M. Kanuck
Instructors: H. Balter, B. Bates, W. Boyd, H. Fuld, M. Levandowsky, E. Levitan,
K. Paparo, A. Sobieraj, L. Squitieri, R. Thomas

BIO 11 General Biology
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
A continuation of BIO 11. Prerequisite: BIO 11.

BIO 15 Zoology
Anatomy, physiology, morphology, taxonomy, ecology and economic importance of the animal kingdom, relationships of animal parasites to the human organism. For Medical Lab. Tech. students only.

BIO 18 Human Physiology
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
Anatomy and physiology of the integumentary, muscular, digestive, nervous, circulatory, excretory, respiratory, endocrine and reproductive systems of the human body; special senses. For Nursing students only.

BIO 22 Medical Terminology
Acquaintance with medical concepts, medical terms and scientific principles; various ailments and diseases; tests used in their analyses; treatments and therapeutic techniques for alleviation and cure. For Medical Secretarial Assistants only.

BIO 25 Anatomy and Physiology 1
Cellular and organic approach to the integumentary skeletal, muscular, circulatory, digestive, nervous and respiratory systems of the human. Prerequisites: CHM 11, BIO 15.

BIO 26 Anatomy and Physiology 2
Study of human excretory, reproductive and endocrine systems; electrolyte and water balance; the senses; metabolism; immunity. Recent advances in prevention of disease. Prerequisites: CHM 12, BIO 25.

BIO 28 Bacteriology
Isolation, culturing and identification of pathogenic and nonpathogenic bacteria; clinical observation of bacterial effects on human organism. For Nursing students only.

BIO 31 Embryology
Study of embryological development of frog, pig and chick from gamete stage to adult. Prerequisite: BIO 12.
BIO 35 Clinical Techniques 1 1 lect 3 lab 2 cr
Use of basic laboratory tools, glassware and electrical equipment; urinanalysis—
physical, chemical and microscopic tests; complete blood count, normal and
abnormal blood smears, blood sedimentation rate, blood hematocrit, cerebro-
spinal fluid and bone marrow. Prerequisites: CHM 12, BIO 25; corequisite: CHM 35.

BIO 36 Clinical Techniques 2 1 lect 3 lab 3 cr
Chemical tests of blood; introduction to blood banking; blood typing, ABO,Rh,
crossmatching; coagulation studies; prothrombin time, clot retraction. Clinical
chemistry—determination of calcium, total proteins, albumin, a/g ratio, non-
protein nitrogen, liver function tests, inorganic phosphates, cholesterol, amylase,
chlorides, chromatography, spectrophotometry. Prerequisites: CHM 12, CHM 35,
BIO 26, BIO 35; corequisite: CHM 41.

BIO 41 Histology and Microtechniques 2 lect 4 lab 4 cr
Study and preparation of vertebrate tissues and organs for microscopic study,
with emphasis on clinical histologic techniques. Prerequisites: M.LT.—CHM 11, 12,
BIO 26.

BIO 43 Microbiology 2 lect 4 lab 4 cr
Isolation, cultivation, preparation and identification of pathogenic and non-patho-
genic bacteria. Emphasis on specialized methods in medical bacteriology and
serology, medical mycology and parasitology. Prerequisites: M.LT.—BIO 26, CHM
35, L.A.—CHM 12, CHM 35, BIO 12 and written permission from instructor.

BIO 46 Clinical Techniques for Medical Secretaries 1 lect 3 lab 2 cr
Use and care of instruments such as the microscope, sphygmomanometer, metab-
lutor, electrocardiograph, sterilizer, centrifuge, colorimeter, balance and auto-
clave. For Medical Secretarial Assistants only. Prerequisite: BIO 18.

BIO 47 Clinical Techniques for Medical Secretaries 2 1 lect 3 lab 2 cr
Chemical tests and analysis of blood, analysis of urine, determining presence of
total protein, albumin, sugar, specific gravity; minerals such as calcium; potassium,
and chlorides; sedimentation rates. Prerequisite: BIO 46.

BUSINESS AND COMMERCE
Chairman: Professor Martin K. May
Professor: R. Kissel
Associate Professors: B. Cutler, J. Edelman, A. Hirshfield, S. Ress, L. Ruggiero
Assistant Professors: I. Hirsh, W. Hynes, M. Krieger, J. Nagel, M. Pollack, H. Weiman
Instructor: M. O'Riordan

ACC 11 Fundamental Accounting 1 5 rec 4 cr
Principles of accounting applied to single proprietorship. Journalizing and posting,
adjusting and closing entries, preparation of the work sheet, balance sheet and
income statement. Prerequisite or corequisite: (depending upon student's curricu-
num) BUS 11.

ACC 12 Fundamental Accounting 2 5 rec 4 cr
Extension of the principles of accounting to partnerships and corporations. Pre-
requisite: ACC 11.
ACC 13 Intermediate Accounting 5 rec 4 cr
Theory and problems of accounting applied to construction; financial statements; problems of valuation and income determination. Prerequisite: ACC 12.

ACC 14 Cost Accounting 5 rec 4 cr
Principles of cost accounting for manufacturing and business; 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. Prerequisite: ACC 13.

BUS 11 Business Mathematics* 4 rec 3 cr
Principles and problems of interest, bank discounts, purchase discounts, installment sales, payrolls, depreciation, profit distribution, taxes and insurance.

BUS 41 Business Statistics 3 rec 1 lab 3 cr
Introduction to statistical methods as a basis for decision-making and operations control in business, utilizing 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 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.

DAT 20 Punched Cards and Basic Wiring 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.

DAT 21 Advanced Wiring Concepts 2 lect 5 lab 4 cr
Type 407 electric accounting machine with reference to co-selectors, digit selectors, storage units, summary punching and multiple line printing (MLP). Prerequisite: DAT 20.

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

DAT 23 Machine Accounting Applications 2 8 lab 3 cr
Applications of EAM equipment in such business service areas as banking, insurance and stock brokerage. Prerequisites: ACC 12, DAT 22.

DAT 30 Introduction to Systems 4 lect 4 cr
Systems study including definition of the problem, flow charting, data controls, systems controls, systems evaluation and implementation.

DAT 31 Advanced Systems Analysis 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. Prerequisites: ACC 11, DAT 30.

* 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.
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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<tr>
<td>DAT 40</td>
<td>Basic Computer Programming</td>
<td>3 lect 2 lab 4 cr</td>
<td>Features of various computers with consideration of the data processing system including components, instruction format, storage, looping, index registers, housekeeping; console control; computer card system. Prerequisite: DAT 30.</td>
</tr>
<tr>
<td>DAT 41</td>
<td>Advanced Programming</td>
<td>3 lect 2 lab 4 cr</td>
<td>Tape and random access devices for sorting, merging and file routines; macro programming; job timing; problems in advanced programming. Prerequisites: ACC 11, DAT 40.</td>
</tr>
<tr>
<td>DAT 42</td>
<td>Advanced Programming and Systems Application</td>
<td>4 lect 2 lab 5 cr</td>
<td>Advanced applications problems utilizing automatic programming aids such as COBOL, in industries such as manufacturing and retailing. PERT concept is also illustrated. Prerequisites: ACC 12, DAT 41, DAT 31.</td>
</tr>
<tr>
<td>DAT 50</td>
<td>Management of Data Processing Installation</td>
<td>3 lect 2 lab 4 cr</td>
<td>Punch card and computer installation management involving machine room layout, controls for input and output, scheduling, management requirements, machine room maintenance, computer console operation. Field trips to punch card and computer installations. Prerequisite: DAT 22.</td>
</tr>
<tr>
<td>FIN 31</td>
<td>Principles of Finance</td>
<td>3 rec 3 cr</td>
<td>American financial system; public and private financial institutions; financial problems of industrial and commercial firms. Procedures of business, foreign trade, and consumer financing; governmental policies and their effects on economic activities.</td>
</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3 rec 3 cr</td>
<td>Survey of American legal system; principles of law and application of Uniform Commercial Code involved in contracts; application of principles to typical business problems.</td>
</tr>
<tr>
<td>LAW 45</td>
<td>Medical Law</td>
<td>3 rec 3 cr</td>
<td>Law as it affects work of the medical secretarial assistant, including medical practice acts, legal relationship of physician and patient, professional liability, types of medical practice; preparation of reports for workmen's compensation, court litigation.</td>
</tr>
<tr>
<td>LAW 47</td>
<td>Legal Procedures</td>
<td>3 rec 3 cr</td>
<td>Common, statutory and constitutional law; the judicial system; proceedings, civil and criminal, from initiation to enforcement and judgment. Role of the legal secretary.</td>
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<tr>
<td>RET 11</td>
<td>Marketing</td>
<td>3 rec 3 cr</td>
<td>Principles of marketing goods and methods of distribution from producer or manufacturer to consumer. Types, functions, practices of wholesalers and retailers; efficient marketing techniques.</td>
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<tr>
<td>RET 14</td>
<td>Fashion Markets and Trends</td>
<td>4 rec 4 cr</td>
<td>Style, construction and quality of apparel and accessories; application of color line and design to fashion; fashion coordination and analysis of fashion trends. Prerequisite: RET 13.</td>
</tr>
</tbody>
</table>

This table outlines the course descriptions for the Business Department, detailing the course codes, credits, and descriptions for each course, including prerequisites where applicable.
RET 31 Salesmanship 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.

RET 33 Retail Buying Techniques 3 rec 3 cr
Duties and responsibilities of buyer; practical principles and procedures used to determine consumer demand; sources of supply and relations with resources; techniques of merchandising selection; pricing. Prerequisite: RET 11; corequisite: RET 35.

RET 35 Retail Merchandising 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. Prerequisites: ACC 11, BUS 11; corequisite: RET 33.

RET 36 Retail Merchandising 2 3 lect 3 cr
Principles 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. Prerequisites: RET 33, RET 35.

RET 41 Retail Operations and Management 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. Prerequisite: RET 11.

RET 43 Retail Advertising and Sales Promotion 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. Prerequisite: RET 11.

RET 51 Supervised Cooperative Work Experience 1 rec 14 hrs. work exp. 2 cr
Employment in a college-approved retailing organization, to gain insight into 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 experiences gained on job. Students rated by employer on job accomplishment. Course required for degree for day students only. (Fully employed evening students will substitute RET 53.)

RET 53 Current Retailing Concepts 2 rec 2 cr
The basis for adoption of current retailing management operations and analysis of their influence upon trends in retailing techniques.

RET 61 International Marketing and Merchandising 2 cr
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.

ORI 41 Accounting Senior Orientation 1 rec 0 cr

ORI 42 Retailing Senior Orientation 1 rec 0 cr

ORI 46 Data Processing Senior Orientation 1 rec 0 cr
For students in Accounting, Retailing, and Data Processing curricula. Seminar on continuing education after graduation; career planning; survey of employment opportunities and techniques of job-seeking.
CHEMISTRY AND CHEMICAL TECHNOLOGY

Chairman: Associate Professor Carl Polowczyk
Professor: S. Atlas
Associate Professors: J. Buckley, A. Shaw, H. Stein
Assistant Professors: P. Babnis, G. Berkowitz, R. Clarke, E. Passer, M. Pulver, I. Zimmerman

Instructors: R. Harris, R. Miller

CHM 01 Foundations of Chemistry 2 rec/lab 2 lect 0 cr
Elementary concepts of chemistry including chemical change, chemical formulas, equation writing, atomic structure, organic compounds, acids, bases, salts and ionization, chemical problem-solving. (For Nursing students lacking a basic background in chemistry.)

CHM 02 Introduction to Chemistry 2 lect 1 rec 2 lab 0 cr
Introduction to types of matter, elementary, compound, formulas, equations, use of arithmetic for chemical problem-solving, nomenclature, atomic structure and chemical bonding. Basic laboratory skills. (Placement in CHM 02 by examination or for students who wish to make up a deficiency in high school chemistry.) Co-requisite: MTH 05 or RDL 02 or permission of Department.

CHM 11 General College Chemistry 1 1 rec 2 lect 3 lab 4 cr
CHM 12 General College Chemistry 2 1 rec 2 lect 3 lab 4 cr
Fundamental principles and theories of chemistry including aspects of atomic structure and bonding, chemical calculations, states of matter, solutions, kinetics equilibria, electro-chemistry, properties of non-metallic and metallic elements, nuclear chemistry, organic chemistry. Laboratory chemical techniques and principles, qualitative analysis. (May be taken by nonscience students to meet the one year science requirement. Chemistry and other science majors should take CHM 22 in the second semester.) Prerequisite for CHM 12: CHM 11.

CHM 15 Fundamentals of Chemistry 2 lect 4 lab 3 cr
Fundamental principles and theories of chemistry; emphasis on topics of interest to the technologies. Required of Mechanical Technology students.

CHM 22 General Chemistry 2 with Qualitative Analysis 1 rec 2 lect 6 lab 5 cr

CHM 24 Plastics Chemistry 3 rec 3 lab 4 cr
Chemistry in relation to the plastics industry. Special emphasis on organic chemistry and chemistry of high polymers.

CHM 31 Organic Chemistry 1 1 rec 2 lect 4 lab 4 cr
Structure, nomenclature, properties and reactions of organic compounds including electronic theory and mechanism. Laboratory: preparation, purification and identification of representative organic compounds. Prerequisites: CHM 12 or CHM 22.

CHM 32 Organic Chemistry 2 1 rec 2 lect 4 lab 4 cr
A continuation of CHM 31. Prerequisite: CHM 31.
<table>
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<th>Lect.</th>
<th>Lab.</th>
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<td>Quantitative Analysis</td>
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<td>Theory and laboratory methods of Quantitative</td>
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<td></td>
<td>Chemical Analysis with laboratory determinations</td>
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<td>employing gravimetric and titrimetric (volumetric)</td>
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<td>methods, including acid-base, precipitation</td>
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<td></td>
<td>and oxidation-reduction reactions; use of</td>
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<td>chelating agents and analytical instruments.</td>
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<td><strong>Prerequisite:</strong> CHM 22.</td>
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<tr>
<td>CHM 35</td>
<td>Fundamentals of Organic Chemistry</td>
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<td>Nomenclature, structure, properties and reactions</td>
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<td>of typical organic molecules. Laboratory:</td>
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<td>typical organic compounds. <strong>Prerequisite:</strong></td>
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<td>CHM 41</td>
<td>Biochemistry</td>
<td>4 cr</td>
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<td>Chemistry of metabolism, electrolytic equilibrium</td>
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<td>reaction mechanism, catalysis, oxidation</td>
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<td>reduction, enzymes, metabolism of</td>
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<td>carbohydrates, proteins, fats and nucleic acids.</td>
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<td><strong>Prerequisite:</strong> CHM 35.</td>
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<td>CHM 43</td>
<td>Physical Chemistry</td>
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<td>Atomic concepts of matter and energy; nature of</td>
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<td>gaseous, liquid and solid states; thermochemistry</td>
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<td>and thermodynamics; homogeneous equilibria;</td>
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<td>kinetics, electro-chemistry, solution theory</td>
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<td>and colloids. <strong>Prerequisites:</strong> CHM 31, CHM 33.</td>
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<td>CHM 44</td>
<td>Chemical Instrumentation</td>
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<td>Introduction to concepts of modern analytical</td>
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<td>methods. Elementary principles of electronics,</td>
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<td>and uses of instruments. Spectrophotometry</td>
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<td>(visual, ultraviolet and infrared); polarography</td>
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<td>, potentiometry, gas liquid partition chromatography,</td>
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<td>electrogravimetric methods, radioactive</td>
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<td>techniques, emission spectrophotometry,</td>
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<td>flame and atomic absorption photometry. **</td>
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<td>Prerequisite:** CHM 33.</td>
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<tr>
<td>CHM 45</td>
<td>Industrial Analysis</td>
<td>4 cr</td>
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<td>Analysis of representative products of</td>
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<td>chemical plant operations including petroleum,</td>
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<td>food, oils and fats, pharmaceuticals and</td>
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<td>plastics. Instrumentation; using typical</td>
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<td>industrial equipment. Methods according to</td>
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<td>ASTM, AOAC, API, USP. <strong>Prerequisites:</strong> CHM 31,</td>
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<td>CHM 33.</td>
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<td>CHM 46</td>
<td>Introduction to Chemical Industry</td>
<td>2 cr</td>
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<td>Study of procedures used in unit operations in</td>
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<td>chemical engineering; representative types of</td>
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<td>equipment used; and observation of practical</td>
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<td>applications of industrial processes by visits to</td>
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<td>representative manufacturing plants. <strong>Prerequisites:</strong></td>
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<td>CHM 32, CHM 33.</td>
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PLASTICS TECHNOLOGY

PLS 11 Fundamentals of Plastics 2 rec 2 cr
The materials, processes and product types which constitute the operations of the plastics industry and its manufacturing techniques; history and development of the industry.

PLS 12 Materials Compounding and Process Instrumentation 2 rec 3 lab 3 cr
Mathematics as applied to the plastics industry. Instrumentation and measurements in control of plastic processes. Processing of raw materials to produce plastics; compounding, mixing and blending. Use of tumblers, mixers, roll mills, extrusion and pelletizing of final resin blends. Prerequisites: PLS 11, MTH 11.

PLS 31 Plastics Processing 2 rec 4 lab 3 cr
Processing of thermosetting plastics; manufacture and selection for specific end use. Compression, transfer and encapsulation. Finishing techniques. Mold and machine use planning. Hydraulic circuit technology. Prerequisites: PLS 12, MTH 16.

PLS 32 Plastics Processing and Production Control 2 rec 4 lab 3 cr
Processing of thermoplastics in injection molding. Materials and processing parameters, finishing and assembly techniques, field trips to operating plants. Production control, scheduling and quality control systems. Electric circuit technology for plastic processing equipment. Prerequisites: PLS 31, CHM 24.

PLS 35 Materials Engineering 2 rec 2 cr
Fundamental relationships between properties and end use of plastic materials. Correlation of composition with engineering properties. Theory and application of testing methods in field and laboratory. Techniques of ASTM procedures for testing. Prerequisites: PLS 12, MTH 16.

PLS 36 Plastic Mold and Product Design 2 rec 2 cr
Principles and methods underlying mold design to provide data on component details of the tool and to examine fundamental construction on various types of molds. Converting aesthetics of product design into good tooling practices. Prerequisites: PLS 12, MTH 16.

PLS 37 Extrusion Technology 2 rec 4 lab 3 cr
Rheology of polymers in the extrusion process and melt processing. Applications of extrusion process in compounding, pipe and profile manufacture and film blowing; use of auxiliary equipment and establishment of production line conditions. Prerequisites: PLS 12, MTH 16.

PLS 38 Fabrication 2 rec 4 lab 3 cr
Application of blow molding and thermoforming methods and principles, material selection, die and tool design and production techniques. Reinforced plastics, hand and spray layup, tooling. Expanded foam technology, casting, and molding. Customer and vendor relationships. Prerequisite: PLS 37.

PLS 41 Materials Testing Laboratory 2 rec 3 lab 3 cr
Effects of chemical and molecular structures, molecular weight distributions, glass transitions and crystallinity on physical and chemical properties. Use of tensile, impact, fatigue and environmental testing equipment. Individual term projects on physical testing. Prerequisite: PLS 35.
PRINCIPLES OF SCIENCE*

An indepartmental offering, in cooperation with the Departments of Biology, Chemistry, and Physics, administered in the Department of Chemistry.

SCI 11 Principles of Science 1
1 rec 2 lect 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.

SCI 12 Principles of Science 2
1 rec 2 lect 2 lab 4 cr
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. Prerequisite: SCI 11.

SCI 14 Introduction to General, Organic and Biological Chemistry 3 lect 3 lab 4 cr
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. Required of Nursing students. Prerequisites: BIO 21, BIO 28.

* Students expecting to transfer to a senior college of City University should consult their curriculum advisers before registering for these courses.
ENGINEERING TECHNOLOGIES

Chairman: Associate Professor Frederick J. Berger
Associate Professors: S. Lawrence, N. McLaughlin, O. Rodzianko, Y. Segel, R. Seid, H. Tyson
Assistant Professors: P. Berger, G. Gean, S. Ritterman

ELECTRICAL TECHNOLOGY

ELC 01 Basic Electricity 4 rec 3 lab 0 cr
Preparatory course for ELC 11 for students admitted to the Electrical Engineering Technology program with prerequisite deficiency. Course includes relationship between voltage, current, resistance, power and energy in DC circuit elements. Use of basic test instruments. Students will work at their own pace and may earn credit for ELC 11 upon satisfactory completion of required work.

ELC 11 Introduction to Electric Circuits 3 rec 3 lab 4 cr

ELC 15 Electric Circuits 1 rec 2 lab 2 cr
Introduction to DC circuits, AC circuits theory, electronics. Qualitative approach to voltage, current, resistance, impedance, power and energy in linear DC and AC circuit elements and networks. Use of basic electrical test instruments. (For Mechanical Technology students only.) Corequisites: MTH 16, PHY 21.

ELC 16 Industrial Electronics & Instrumentation 1 rec 2 lab 2 cr
Introduction to semiconductors and vacuum tube electronics, basic principles of electric machinery controls; qualitative approach to study of transistor, vacuum tube electronics and electrical machinery; emphasis on areas of electronic instrumentation. (For Mechanical Technology students only.) Prerequisites: ELC 15, PHY 22.

ELC 21 AC Circuits 3 rec 3 lab 4 cr
Voltage, current, impedance, power and energy in linear AC circuit elements and networks. Introduction to networks, series resonance, and parallel resonance. Prerequisites: ELC 11, PHY 21; corequisite: MTH 17.

ELC 25 Transistor and Vacuum Tube Electronics 3 rec 3 lab 4 cr
Semiconductor and vacuum tubes as physical devices and circuit elements; rectification, filtering and amplification. Emphasis on transistors. Laboratory: experiments in diode and triode characteristics (vacuum tube and semiconductors), power supplies and amplification. Prerequisite: ELC 11; corequisites: ELC 21, MTH 17.

ELC 35 Communication Electronics 3 rec 3 lab 4 cr
Continuation of ELC 25. Multistage amplifier, power amplifier from standpoints such as class of operation, frequency range and response, coupling methods and feedback conditions. Modulation, detection and heterodyning, with applications in radio broadcasting and high fidelity techniques. Experiments in frequency responses, feedback, oscillation. Prerequisite: ELC 25; corequisite: MTH 18.
ELC 38 Electric Product Design and Measurements  
6 lab 2 cr  

ELC 45 Electronic Project Laboratory  
3 lab 1 cr  
Application of electrical and electronic theory to the solution of practical laboratory problems. Students work as technicians under direction of instructor, who acts as project engineer. Projects include design of circuits, fabrication and testing of breadboards and prototypes, the submission of tests, data and reports. Continuation of ELC 38, microelectronic equipment utilization. Prerequisites: ELC 35, ELC 38; corequisites: ELC 72 (Power and Control option only), ELC 82 (Communication option only).

ELC 72 Electric Machines and Power  
3 rec 3 lab 4 cr  
Theoretical foundation and current industrial practices in electrical power generation, transmission and distribution. Study of DC and AC machine construction, transformers, protective and auxiliary equipment. Three-phase systems, power measurements and servos. (Required for Power and Controls option only.) Prerequisite: ELC 21.

ELC 75 Electrical Instrumentation  
1 lect 2 rec 3 lab 4 cr  
Structure of Instruments, techniques of measurement, and methods of recording measurements of electrical power systems. (Required for Power and Controls option only.) Prerequisite: ELC 21.

ELC 78 Electrical Control Systems  
1 lect 2 rec 3 lab 4 cr  
Stability and performance criteria applied to simple servo-systems. Analysis of the three major principles of control systems involving the gain characteristics of system components, closed loop dynamic behavior and effects of compensation, and sinusoidal frequency response of the system. (Required course in Power and Controls option only.) Prerequisites: ELC 35, ELC 72, MTH 18; corequisite: ELC 75.

ELC 82 Networks and Transmission Lines  
3 rec 3 lab 4 cr  
Use of lumped circuit elements in coupled circuits and filters to obtain specified current and voltage characteristics with variation of frequency, extended to distributed parameters in transmission lines. (Required for Communications option only.) Prerequisite: ELC 21; corequisite: MTH 18.

ELC 85 Microwaves  
1 lect 2 rec 3 lab 4 cr  
Microwaves technology involves the discussion of microwave transmission lines, circuits, electronics, and measurements. Principles of microwave technology, transmission lines, waveguides, power sources (klystrons, magnetrons, and traveling wave tubes), ferrite devices, cavities, filters and spectrum analyzer. (Required for Communication option only.) Prerequisite: ELC 82; corequisite: ELC 35.

ELC 88 Communication Systems  
1 lect 2 rec 3 lab 4 cr  
Principles of pulse and digital techniques applicable to modern practices; modulation, detection, and reception to analyze the electrical characteristics of audio, radio, television, telemetering, and radar communication systems. (Required for Communication option only.) Prerequisites: ELC 35, ELC 82, MTH 18; corequisite: ELC 85.
ELC 92 Pulse and Digital Circuits 3 rec 3 lab 4 cr
Circuits used in the generation and control of non-sinusoidal waveshapes, application to timing, telemetering, cathode ray displays; television and computers; limiters. DC restorers, differentiators, integrators, multivibrators and blocking oscillators. Laboratory: operating characteristics of typical pulse circuits and use of specialized instrumentation employed in pulse techniques. (Required for Computer option only.) Prerequisite: ELC 25.

ELC 95 Computer Fundamentals 1 lect 2 rec 3 lab 4 cr
Applications of mathematical logic, number systems, and Boolean algebra leading to an understanding of both digital and analog computers. Systematic study of major computer units, and principles of computer programming. Laboratory: assembly, operation and testing of elementary computer and logic circuits. (Required for Computer option only.) Prerequisites: ELC 92, ELC 95.

ELC 98 Computer Design 1 lect 2 rec 3 lab 4 cr
Principles and circuitry of analog computers. Application of prior knowledge of waveshaping circuits to digital circuits of major component units of a digital computer. Study of hybrid computer systems which contain analog and digital computer components. (Required for Computer option only.) Prerequisites: ELC 92, MTH 18; corequisite: ELC 95.

MECHANICAL TECHNOLOGY

MEC 01 Introduction to Engineering Graphics 1 lect 4 lab 0 cr
Preparatory course for MEC 11 for students admitted to the Mechanical Technology program with prerequisite deficiency. Course includes use of instruments, lettering, applied geometry, and orthographic projection. Students will work at their own pace and two credits may be earned for MEC 11 upon completion of required work.

MEC 09 Elementary Problem Solving 3 rec 0 cr
Proper use of technical aids and problem solving techniques; use of the slide rule, scientific notation, engineering units, dimensional analysis and mathematical concepts as engineering tools.

MEC 11 Basic Engineering Graphics 1 lect 3 lab 2 cr
Fundamental engineering drawing and industrial drafting room practice. Lettering, applied geometry, orthographic projection, auxiliary views, sections and conventions, pictorials, threads and fasteners, dimensioning and electrical drawings; introduction to computer-aided graphics.

MEC 12 Applied Engineering Graphics 1 lect 3 lab 2 cr
Introduction to engineering drawing practices in specific fields. Selected specialties such as gears, cams, piping, welding, structural and architectural drawing. Prerequisite: MEC 11.

MEC 21 Engineering Manufacturing Processes 1 lect 3 lab 2 cr
Basic engineering processes and unit production measurements. Fabrication 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 practice with hand and machine tools.
MEC 25 Production Processes and Numerical Control 1 lec  1 rec  3 lab  3 cr  
Industrial mass production and measurement techniques, including automation, numerical control, and quality control; product design and fabrication methods. Precision layout, measurement and gauging procedures. Laboratory practice with hand and machine tools, precision measuring equipment, and numerically controlled machining center. Projects include design and fabrication of jigs, fixtures, simple dies, and volume production. **Prerequisites:** MEC 11, MEC 21; corequisite: MTH 17.

MEC 27 Mechanics and Introduction to Strength of Materials 4 rec  0 lab  4 cr  
Application of principles of statics, dynamics and strength of materials. Types of loading; relationships between externally applied forces and internally induced stresses in various types of structural and machine members. **Prerequisite:** PHY 21; corequisite: MTH 17.

MEC 28 Strength of Materials 2 lec  3 lab  3 cr  
Analysis and solution of practical strength of materials problems. Laboratory: destructive and nondestructive tests of materials, machine members and structures using industrial equipment and ASTM standard procedures. **Prerequisite:** MEC 27.

MEC 31 Machine Design 2 lec  2 lab  3 cr  
Principles of kinematics, mechanics and strength of materials in analysis and design of typical machine members. Machine kinematics, theories of failure, basic mechanisms and power transmission, linkage mechanisms, cams, shafting, power screws, gears and gear trains and application of digital computer. **Prerequisite:** MEC 12; corequisite: MEC 28.

MEC 33 Thermodynamics and Fluid Dynamics 2 rec  3 lab  3 cr  
Energy and energy interchange; steam generator, internal combustion engine, refrigerator, turbine, hot water heater and home insulation. Laboratory: testing of systems operated on thermodynamic principles, such as a gasoline engine, air conditioner, steam turbine. **Prerequisites:** MTH 17, PHY 22; corequisite: CHM 15.

MEC 41 Metallurgy and Engineering Materials 1 lec  1 rec  2 lab  3 cr  
Physical metallurgy, properties of ferrous and non-ferrous metals, as well as nonmetallic materials and plastics. Laboratory: preparation of samples, metallographic examination of metals, and tests for various properties of metallic and nonmetallic materials. **Prerequisites:** MEC 21, MEC 27, CHM 15.

MEC 45 Mechanical Projects Laboratory 3 lab  1 cr  
Application of mechanical engineering theory to the solution of practical laboratory problems. Projects include the design, fabrication and testing of prototype mechanical or electro-mechanical equipment. Students work as technicians under direction of instructor who acts as project engineer. **Prerequisites:** MEC 21, MEC 25; corequisite: ELC 16.

MEC 51 Descriptive Geometry 1 lec  4 lab  2 cr  
Solution by graphical methods of problems on the relations of points, lines, planes and surfaces, intersection and developments with practical applications. For Engineering Science students only. **Prerequisite:** MEC 12.
MEC 61 Advanced Machine Design 2 rec 2 lab 3 cr  
Continuation of MEC 31 with emphasis on synthesis. Stress concentration, variable loading; bearing and lubrication, cams, springs, couplings and clutches, brakes, belt and rope drives, and vibration in machines. Laboratory: several complete design projects of machines and systems. Prerequisite: MEC 31.

MEC 62 Tool Design 2 rec 2 lab 3 cr  
Selection and design of suitable tools; drill jigs, milling fixtures, gauges, special cutting tools and dies for blanking, drawing, piercing and bending. Laboratory: problem solving and design of various tools. Prerequisite: MEC 31.

MEC 63 Refrigeration and Air Conditioning 2 rec 2 lab 3 cr  
Vapor-compression systems, heating and year-round air conditioning systems, psychrometrics and design loads. Laboratory: design and construction of a vapor-compression cooling unit and air-conditioning equipment. Prerequisite: MEC 33.

MEC 64 Heating and Ventilating 2 rec 2 lab 3 cr  
Commercially-used design and estimating procedures in the design selection and installation of domestic and industrial heaters and ventilators. Laboratory: design of heating equipment fuel and flue gas analysis, tests of steam generators, hot water heaters, blowers, ducts and insulation. Prerequisite: MEC 33.

MEC 65 Industrial Management 2 rec 2 lab 3 cr  
Overall operation of typical industrial manufacturing and processing plants, including organization and working relationships of various units. Foremanship, production control, inventory control, quality control and purchasing. Laboratory: establishment and simulated operation of simple management and production systems. Prerequisite: MEC 25.

MEC 67 Instrumentation and Control Systems 2 rec 2 lab 3 cr  
Instruments used to sense, measure and control automatic or semi-automatic processes. Temperature, pressure, level, flow, analysis, and process instrumentation and control systems; introduction to principles of servo systems and transducer selection. Laboratory: industrial control system investigations and mechanical, electrical and electronic meters, records, instruments and control systems. Prerequisite: MEC 33; corequisite: ELC 16.

ORI 14 Technology College Orientation 1 lect 0 cr  
An orientation program to familiarize new students with effective college work-study habits, technical problem-solving methods, and the work of technicians and engineers. Engineering problem-solving formats, slide rule operation, and the branches of engineering and engineering technology.

ORI 15 Engineering Science College Orientation 1 lect 0 cr  

ORI 44 Technology Career Orientation 1 lect 0 lab 0 cr  
Special program to acquaint senior Engineering Technician with the employment market and to assist both electrical and mechanical senior technicians in preparation of resumes. On-campus employment interviews conducted by industrial representatives. Individual guidance in transfer and continued education offerings.
ENGLISH

Chairman: Professor Cortland Auser
Professors: A. Beringause, R. Loughlin, B. Mandelbaum, B. Pollin
Associate Professors: I. Berger, L. Gottesman, G. Motola
Assistant Professors: J. DeMetrio, M. Frank, N. Grill, G. Lebowitz, D. Lowenthal,
P. Read
Instructors: J. Gosselin, A. Schwartz, J. Spielberger, B. Witlieb, W. Zalkin,
S. Zeidenstein, S. Zimmerman

ENG 01 Writing Laboratory 4 lab/rec 0 cr
Review and practice of basic principles of grammar, style, and usage, enabling
student to reach college level written composition.

ENG 13 Fundamentals of Written Composition 3 rec 1 conf 3 cr
Fundamental principles of organization and grammar; practice in expository writ-
ing; selected readings in suitable prose; research paper techniques. The confer-
ence hour will be scheduled weekly for purposes of working with individuals or
small groups on student's writing problems.

ENG 14 Written Composition and Prose Fiction 3 rec 1 conf 3 cr
Continued emphasis on the writing of clear, effective expository prose based on
readings in short stories and novels. The conference hour will be scheduled weekly
for purposes of working with individuals or small groups on student's writing
problems. Research paper required. Prerequisite: ENG 13.

ENG 15 Written Composition and Drama 3 rec 1 conf 3 cr
Continued emphasis on the writing of clear, effective expository prose based on
readings in world drama. The conference hour will be scheduled weekly for
purposes of working with individuals or small groups on student's writing
problems. Research paper required. Prerequisite: ENG 14.

ENG 16 Written Composition and Poetry 3 rec 1 conf 3 cr
Continued emphasis on the writing of clear, effective expository prose based on
readings in poetry in the English language. The conference hour will be scheduled
weekly for purposes of working with individuals or small groups on student's
writing problems. Research paper required. Prerequisite: ENG 15.

ENG 19 Journalism 3 rec 1 conf 3 cr
Study of all forms of journalistic writing—news story, feature story, editorial, critical
review—and the development of skills necessary for newspaper writing. Individual
conferences. Visits to newspaper offices and plants and participation in produc-
tion of college newspaper. Prerequisite: Approval of instructor or department
chairman. (May be substituted for ENG 13 with approval of chairman).

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 3 rec 3 cr
Modern drama, from Ibsen to the present day. Although the emphasis will be on
such American playwrights as O'Neill, Hellman, Anderson, Oedels, Wilder, Miller,
and Williams, such European playwrights as Chekhov, Strindberg, Pirandello,
Ionesco, and Genet will also be included. The student will see a current dramatic
production. Individual conferences. Prerequisite: ENG 12.
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ENG 33</td>
<td>Modern American Short Story</td>
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<td>Origin and development of the American short story, with special emphasis on current trends. A critical or research paper is required and students will be encouraged to write a short story. Individual conferences. Prerequisite: ENG 14.</td>
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<td>ENG 41</td>
<td>Modern British and American Poetry</td>
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<td>Basic poetic principles and techniques introduced by reading, analyzing, and discussing selected modern poetry. A critical or research paper is required and students will be encouraged to write poetry. Conferences. Prerequisite: ENG 14.</td>
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<td>ENG 45</td>
<td>The Novel</td>
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<td>Appreciation of the classics of world fiction—their themes, techniques, terminology, origin, and growth—as seen against the background of contemporary achievement. Individual conferences and a critical or research paper.</td>
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<td>ENG 51</td>
<td>American Literature and Thought</td>
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<td>Major themes in American literature, thought, and history, from the middle of the Nineteenth Century to present day. Selected authors include Hawthorne, Melville, Whitman, James, Twain, Eliot, and Hemingway. Individual conferences and a critical paper. (To be given as a parallel course with HIS 22, with classes frequently conducted concurrently.) Prerequisite: ENG 14.</td>
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<td>ENG 53</td>
<td>The Black Writer in American Literature</td>
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<td>Literature by American Black authors; consideration of the nature of this literature—its characteristic forms, imagery, archetypes and styles. Readings include works of Dunbar, Hughes, Cullen, DuBois, Wright, Ellison, Jones, and Baldwin. Critical or research paper and individual conferences. Prerequisite: ENG 14.</td>
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<td>ENG 55</td>
<td>Literary Criticism (Honors Course)</td>
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<td>Philosophies and examples of literary 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.</td>
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<td>ENG 61</td>
<td>Shakespeare</td>
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<td>An introduction to the plays of Shakespeare. Representative tragedies, comedies, and histories are read and analyzed. Poetic and dramatic techniques are studied with some attention to the Elizabethan theatre. A research or critical paper is required. Individual conferences. Prerequisites: ENG 13, 14, and 15.</td>
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<td>ENG 65</td>
<td>Honors Elective: Independent Research</td>
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<td>To involve the intellectually aware, creative student in the study in depth of some phase of English studies through independent research. 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 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.</td>
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HEALTH AND PHYSICAL EDUCATION

Chairman: Associate Professor Michael Steuerman
Associate Professor: F. Wong
Assistant Professors: A. Gold, J. Katz, I. Lewis, M. Wenzel, J. Whelan
Instructors: G. Constantine, C. Honda, R. Salgado

1. An annual medical examination is required on the College Medical form which can be secured in all of the Health Service offices.
2. All, except Business Curricula and Nursing students, must take HLT 91, regardless of health or physical limitations.
3. Students unable to participate in any activity course for medical reasons must make an appointment to see the college nurse upon admission to the college.

HLT 11 Introduction to Physical Education (Coeducational) 2 gym 1 cr
Physical fitness testing and evaluation. Orientation to sports program and dance (women only). Required for all students.

HLT 21 Fundamentals of Swimming (Coeducational) 2 pool 1 cr
Open to non-swimmers only; includes basic water safety skills and knowledge to make an individual reasonably safe while in, on, or about the water. Prerequisite: HLT 11 and qualifying examination.

HLT 22 Intermediate Swimming (Coeducational) 2 pool 1 cr
Basic elements of good swimming, includes swimming techniques, with emphasis upon mastering form and endurance in the crawl, side, breast and elementary back strokes. Prerequisite: HLT 11 and qualifying examination.

HLT 23 Senior Life Saving and Water Safety (Coeducational) 2 pool 1 cr
The development of skills and knowledge essential to insure personal safety and to help save the lives of others. American Red Cross Life-Saving Certification. Prerequisite: HLT 11 and ability to swim 200 yards, employing the four basic styles of swimming.

HLT 24 Synchronized Swimming (Women) 2 pool 1 cr
Basic techniques of synchronized swimming; includes modified swimming strokes, fundamental sculling movement, basic stunts and figures, basic pattern formations, understanding and appreciation of music and musical accompaniment leading to the formation of a musical routine. Prerequisite: HLT 11 and qualifying examination.

HLT 25 Water Safety Instructor (Coeducational) 1 rec 2 lab 2 cr
Course prepares the student to teach the American Red Cross Water Safety Program. Operation of pool filters, and organization of basis synchronized swimming program. Successful completion of this course qualifies a student for an American Red Cross Water Safety Instructor certificate. Prerequisite: Student must be at least 17 years of age and hold current Red Cross Senior Lifesaving Certificate.

HLT 31 Seasonal Sports (Coeducational) 2 gym 1 cr
Fall: Basketball—Basic skills of passing, dribbling, shooting, rebounding, post play, zone defense, and zone press. Basic patterns of team plan.
Volleyball—Fundamentals of passing, serving, spiking, blocking, team offense and defense. Prerequisite: HLT 11.
HLT 32  Seasonal Sports (Coeducational)  2 gym 1 cr
Spring: *Tennis*—Fundamentals of the forehand stroke, backhand stroke, serve, volley, lob, overhead smash and chop. Singles and doubles strategy.
*Golf*—Fundamentals of golf, grip, stance, swing, woods, irons, putting, chipping and pitching; rules and golf etiquette. *Prerequisite: HLT 11.*

HLT 41  Techniques of Modern Dance (Coeducational)  2 gym 1 cr
Basic skills of modern dance; development of physical strength, flexibility, endurance, and freedom of movement. Explorations and improvisations leading to basic choreographic skills and appreciation of dance as a means of self expression and communication. *Prerequisite: HLT 11.*

HLT 45  Dance Skills, and Sports Activities (Coeducational)  2 gym 1 cr
Skills and techniques in dance (folk, square, and social), volleyball, rebound tumbling (trampoline), table tennis, and bowling. *Prerequisite: HLT 11.*

HLT 46  African and Puerto Rican Dance (Coeducational)  1 rec 2 lab 2 cr
Exploration of African and Puerto Rican dances reflecting the customs and heritage of these cultures. Course will also examine their influence on contemporary American dance.

HLT 81  Fundamentals of Wrestling and Heavy Apparatus (Men)  2 gym 1 cr
Advanced skills and techniques in wrestling, apparatus, and weight training. *Prerequisite: HLT 11.*

HLT 91  Critical Issues in Health (Coeducational)  2 rec 2 cr
This course is intended to develop and encourage critical judgment in three vital areas of health: mental health, addictions and dependencies, and human sexuality.
HISTORY

Chairman: Professor Mark D. Hirsch
Associate Professors: S. Ehrenpreis, W. Sokolsky, J. Wieczerzak, J. Twersky
Assistant Professors: N. Bindler, V. Bonelli, E. Cooper, B. Eisenberg, G. Lankevich, T. Moehs
Instructors: D. Felix, G. Pemberton

HIS 11 History of Western Civilization 1 3 rec 3 cr
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 3 rec 3 cr
Outstanding political, intellectual, philosophical and economic trends, movements and events from the Age of Reason to modern times in Western civilization. Prerequisite: HIS 11.

HIS 21 American History 1 (1492-1865) 3 rec 3 cr
American history from colonial times through the Civil War, with special attention to institutions and politics. Recent historical interpretations and examination of historical origins of current problems. Prerequisite: HIS 11, 12 or Corequisite: HIS 12 and permission of instructor.

HIS 22 American History 2 (1865 to present) 3 rec 3 cr
American history since the Civil War, with special attention to intellectual developments; reconstruction, political developments during the gilded Age, and Progressive Era. American involvement in both World Wars and resolution of the clash between isolation and world participation. Prerequisite: HIS 11, 12 or Corequisite: HIS 12 and permission of instructor.

HIS 25 The Third World and the West 3 rec 3 cr
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 Communist Chinese imperialism. Prerequisite: HIS 11, 12 or Corequisite: HIS 12 and permission of instructor.

HIS 27 Modern History of the Far East 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. Prerequisite: HIS 11, 12 or Corequisite: HIS 12 and permission of instructor.

HIS 31 Modern Latin American History 3 rec 3 cr
Historical development of the Latin American area through the nineteenth and twentieth centuries. Prerequisite: HIS 11, 12 or Corequisite: HIS 12 and permission of instructor.

HIS 35 History of Africa 3 rec 3 cr
The history of Africa from a multi-discipline approach; ancient and mediaeval African societies, the era of slavery, geographic discovery, missionary contact, imperialism and the emergence of modern nationalism and independence. Prerequisite: HIS 11, 12 or Corequisite: HIS 12 and permission of instructor.
HIS 37  Afro-American History  3 rec  3 cr
The African experience; development and abolition of slavery in America, reconstruction after Civil War; migration out of the South; manifold consequences of urban relocation. Deals with Black education, church and arts; writings of Black Americans including Frederick Douglass and Franklin Frazier.

HIS 39  History of Puerto Rico and the Caribbean  3 rec  3 cr
Political, economic, social and cultural history of Puerto Rico, Cuba, Dominican Republic and Haiti from the Spanish discovery to modern times. Emphasis on contributions by the Puerto Ricans to culture and society of the Caribbean — and the United States.

HIS 51  History of the City of New York  3 rec  3 cr
Political, economic and social history of New York City from its Dutch origins to the present; consideration of the City's crucial role in creating modern urban America. Extensive individual reading. Prerequisite: HIS 12.

MATHEMATICS

Chairman: Professor Erwin Just
Professor: N. Schaumberger
Associate Professors: J. Furst, H. Jick
Assistant Professors: M. Bennett, S. Chiswick, T. Finnegan, G. Glier, N. Gore, I. Handel, B. Kabak, S. Penner
Instructors: S. Birnbaum, K. Fogarty, B. Stein, J. Trent

MTH 05  Basic Concepts of Mathematics 1  5 rec  0 cr
Elements of arithmetic, elementary algebra and computational geometry, including operations with rational numbers, numerical geometry, equations and inequalities, polynomials, rational algebraic expressions, graphing.

MTH 06  Basic Concepts of Mathematics 2  5 rec  0 cr
Sets, real and complex numbers, function concept, coordinate geometry, linear and quadratic equations, systems of equations, logarithms, progressions, elements of trigonometry, laws of sines and cosines, trig identities.

MTH 11  Introductory College Mathematics 1  3 rec  3 cr
Fundamental concepts and operations in algebra; functions and graphs; trigonometry of the right triangle; factoring; linear and quadratic equations; algebraic fractions; exponents, radicals and logarithms; ratio, proportion, and variation; progressions; probability and statistics. Prerequisite: 1 unit of high school mathematics.

MTH 13  Survey of Mathematics 1  3 rec  3 cr
Designed for non-science liberal arts students. Emphasis on key concepts and structure of mathematics. Decimal notation, computation in other bases, groups, sets, logic, elementary number theory, development of real number system. (Course is recommended for prospective elementary school teachers.) Prerequisite: Trigonometry or MTH 06.

MTH 14  Survey of Mathematics 2  3 rec  3 cr
Introduction to geometry, networks, topology, algebra, graphs, functions, linear programming, permutations, combinations, probability, logic, euclidean, non-euclidean, projective, finite, and coordinate geometries. Prerequisite: MTH 13.
# MATHEMATICS COURSE SEQUENCE

To the Student: To assist in the selection of courses in Mathematics, find your Professional or Vocational Objective (left column); look under your high school preparation (A, B, C, or D).

<table>
<thead>
<tr>
<th>Student's PROFESSIONAL or VOCATIONAL OBJECTIVE</th>
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<th>B</th>
<th>C</th>
<th>D</th>
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<tbody>
<tr>
<td>1. BUSINESS CAREER SECRETARIAL STUDIES</td>
<td>MTH 11</td>
<td>MTH 16</td>
<td>MTH 17</td>
<td>MTH 17</td>
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<tr>
<td>2. CHEMICAL TECHNOLOGY PLASTICS TECHNOLOGY</td>
<td>MTH 11, 16</td>
<td>MTH 16, 17</td>
<td>MTH 17, 18</td>
<td>MTH 31</td>
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<tr>
<td>3. DATA PROCESSING</td>
<td>MTH 11, 13</td>
<td>MTH 16, 13</td>
<td>MTH 17, 13</td>
<td>MTH 13, 31</td>
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<tr>
<td>4. ELECTRICAL TECHNOLOGY</td>
<td>MTH 06, 16, 17, 18</td>
<td>MTH 16, 17, 18</td>
<td>MTH 17, 18</td>
<td>MTH 31, 32</td>
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<tr>
<td>5. MECHANICAL TECHNOLOGY</td>
<td>MTH 06, 16, 17</td>
<td>MTH 16, 17</td>
<td>MTH 17, 18</td>
<td>MTH 31, 32</td>
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<tr>
<td>6. MEDICAL LAB. TECHNOLOGY</td>
<td>MTH 06, 16, 17</td>
<td>MTH 16, 17</td>
<td>MTH 17, 41</td>
<td>MTH 41</td>
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<tr>
<td>7. BUSINESS ADMIN. TRANSFER (Baruch)</td>
<td>MTH 06, 30</td>
<td>MTH 06, 30</td>
<td>MTH 30</td>
<td>MTH 31</td>
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<tr>
<td>8. BUSINESS EDUCATION TRANSFER (Hunter College)</td>
<td>MTH 06, 13</td>
<td>MTH 06, 13</td>
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<td>MTH 13</td>
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<td>9. CHEMISTRY, BIOLOGY</td>
<td>MTH 06, 30, 31, 32</td>
<td>MTH 06, 30, 31, 32</td>
<td>MTH 30, 31, 32</td>
<td>MTH 31, 32, 33</td>
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<td>10. MEDICINE, DENTISTRY</td>
<td>MTH 06, 30, 31</td>
<td>MTH 06, 30, 31</td>
<td>MTH 30, 31</td>
<td>MTH 31, 32</td>
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<td>11. ENGINEERING</td>
<td>MTH 06, 30, 31, 32, 33, 34</td>
<td>MTH 06, 30, 31, 32, 33, 34</td>
<td>MTH 30, 31, 32, 33, 34</td>
<td>MTH 31, 32, 33, 34, 35</td>
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<tr>
<td>12. ELEM. SCHOOL EDUCATION</td>
<td>MTH 06, 13, 14</td>
<td>MTH 06, 13, 14</td>
<td>MTH 13, 14</td>
<td>MTH 13, 14</td>
</tr>
<tr>
<td>13. MATHEMATICS, PHYSICS</td>
<td>MTH 06, 30, 31, 32, 33, 34</td>
<td>MTH 06, 30, 31, 32, 33, 34</td>
<td>MTH 30, 31, 32, 33, 34</td>
<td>MTH 31, 32, 33, 34, 35</td>
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<td>14. MUSIC</td>
<td>MTH 11</td>
<td>MTH 16</td>
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<td>MTH 31</td>
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<td>15. PRE-PHARMACY</td>
<td>MTH 06, 17, 18</td>
<td>MTH 06, 17, 18</td>
<td>MTH 17, 18</td>
<td>MTH 31, 32</td>
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<tr>
<td>16. HUMANITIES, SOCIAL SCIENCES</td>
<td>MTH 06, 13, 41</td>
<td>MTH 06, 13, 41</td>
<td>MTH 13, 41</td>
<td>MTH 13, 41</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Prerequisites</td>
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<tr>
<td>MTH 16</td>
<td>Introductory College Mathematics 2</td>
<td>4 rec 3 cr</td>
<td>Trigonometric functions, radian measure, scientific notation, significant figures, vectors, laws of sines and cosines, complex numbers, graphs, ratio, proportion and variation, elements of analytic geometry, systems of higher order equations. <em>Prerequisite: Intermediate Algebra, MTH 11 or MTH 06.</em></td>
<td></td>
</tr>
<tr>
<td>MTH 17</td>
<td>College Algebra</td>
<td>4 rec 4 cr</td>
<td>Determinants and systems of equations, complex numbers, DeMoivre's theorem, theory of equations, logarithms, exponents, radicals; introduction to analytic geometry and calculus. <em>Prerequisite: Trigonometry or MTH 16.</em></td>
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</tr>
<tr>
<td>MTH 18</td>
<td>Introduction to Mathematical Analysis</td>
<td>3 rec 3 cr</td>
<td>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. <em>Prerequisite: MTH 17 or equivalent.</em></td>
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</tr>
<tr>
<td>MTH 30</td>
<td>Pre-Calculus Mathematics</td>
<td>4 rec 4 cr</td>
<td>Sets, relations, function concept, special functions, rational and irrational functions, binomial theorem, complex numbers, trigonometric functions, mathematical induction.</td>
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<tr>
<td>MTH 31</td>
<td>Analytic Geometry and Calculus</td>
<td>4 rec 4 cr</td>
<td>Mathematical induction, elements of set theory, limits, rates of change, 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. <em>Prerequisite: MTH 30 or equivalent.</em></td>
<td></td>
</tr>
<tr>
<td>MTH 32</td>
<td>Analytic Geometry and Calculus 2</td>
<td>5 rec 5 cr</td>
<td>Conic sections, determinants, differentiation and integration of transcendental functions, hyperbolic functions, applications of the definite integral. <em>Prerequisite: MTH 31.</em></td>
<td></td>
</tr>
<tr>
<td>MTH 33</td>
<td>Analytic Geometry and Calculus 3</td>
<td>5 rec 5 cr</td>
<td>Polar coordinates, vectors, applications of vectors to analytic geometry and calculus, partial differentiation, multiple integrals, infinite series, applications. <em>Prerequisite: MTH 32.</em></td>
<td></td>
</tr>
<tr>
<td>MTH 34</td>
<td>Differential Equations and Selected Topics in Advanced Calculus</td>
<td>4 rec 4 cr</td>
<td>Methods of solving ordinary differential equations, selected topics from among the following: hyperbolic functions, power series, Fourier series, gamma functions, Bessel functions, problems of motion, electric circuits, chemical solutions, damped and forced vibrations, Laplace transform. <em>Prerequisite: MTH 33.</em></td>
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</tr>
<tr>
<td>MTH 35</td>
<td>Selected Topics in Advanced Calculus and Linear Algebra</td>
<td>4 rec 4 cr</td>
<td>Matrices, introduction to linear algebra and vector analysis, integral theorems of Gauss, Green and Stokes, applications. <em>Prerequisite or corequisite: MTH 34 and permission of Department.</em></td>
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</tr>
<tr>
<td>MTH 41</td>
<td>Probability and Statistics</td>
<td>3 rec 3 cr</td>
<td>Permutations, combinations, probability, sets, finite sample spaces, probabilities as areas, the normal distribution, central limit theorem. <em>Prerequisite: MTH 13.</em></td>
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</tr>
</tbody>
</table>
# MODERN LANGUAGES

**Chairman:** Professor Charles R. Monticone  
**Professors:** D. McCulloch, J. Sztacho  
**Associate Professors:** R. Bernand, H. Winterfeldt  
**Assistant Professors:** R. Gourin, P. Lalii, A. Lessard, J. Sweeney, S. Wilkofsky  
**Instructors:** L. Gorycki, H. Harrison

## FRENCH

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>FRN 11</td>
<td>Elementary French 1</td>
<td>4 rec</td>
<td>Pronunciation; elements of grammar; reading and translation of simple texts; dictation; conversation.</td>
</tr>
<tr>
<td>FRN 12</td>
<td>Elementary French 2</td>
<td>4 rec</td>
<td>Continuation of FRN 11. <strong>Prerequisite:</strong> FRN 11.</td>
</tr>
<tr>
<td>FRN 13</td>
<td>Intermediate French</td>
<td>4 rec</td>
<td>Review of grammar; reading; translation and oral discussion of modern texts; composition; dictation; conversation. <strong>Prerequisite:</strong> FRN 12.</td>
</tr>
<tr>
<td>FRN 21</td>
<td>College French 1</td>
<td>4 rec</td>
<td>Review of grammar; conversation, oral reports, composition and analysis based on reading and interpretation of literary masterpieces. <strong>Prerequisite:</strong> FRN 13.</td>
</tr>
<tr>
<td>FRN 22</td>
<td>College French 2</td>
<td>4 rec</td>
<td>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. <strong>Prerequisite:</strong> FRN 21.</td>
</tr>
<tr>
<td>FRN 23</td>
<td>College French 3</td>
<td>3 rec</td>
<td>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. <strong>Prerequisite:</strong> FRN 22.</td>
</tr>
<tr>
<td>FRN 24</td>
<td>College French 4</td>
<td>3 rec</td>
<td>Reading, oral discussion, reports, literary analysis of works or representative French authors from the Romantic period to the present. <strong>Prerequisite:</strong> FRN 23, or FRN 22 with permission of the department.</td>
</tr>
</tbody>
</table>

## GERMAN

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER 11</td>
<td>Elementary German 1</td>
<td>4 rec</td>
<td>Pronunciation; elements of grammar; reading and translation of simple texts; dictation; conversation.</td>
</tr>
<tr>
<td>GER 12</td>
<td>Elementary German 2</td>
<td>4 rec</td>
<td>Continuation of GER 11. <strong>Prerequisite:</strong> GER 11.</td>
</tr>
<tr>
<td>GER 13</td>
<td>Intermediate German</td>
<td>4 rec</td>
<td>Review of grammar; reading, translation and oral discussion of modern texts; composition; dictation; conversation. <strong>Prerequisite:</strong> GER 12.</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Prerequisites</td>
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<tr>
<td>GER 21</td>
<td>College German 1</td>
<td>4 rec 4 cr</td>
<td>None</td>
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<tr>
<td></td>
<td>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 simplified excerpts from works by German 18th century authors. Prerequisite: GER 13.</td>
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<tr>
<td>GER 22</td>
<td>College German 2</td>
<td>4 rec 4 cr</td>
<td>GER 21</td>
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<tr>
<td></td>
<td>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 German period (Volksepos, Hofisches, Epos and Minnesang), and authors such as Klopstock, Weiland, Lessing, Goethe and Schiller. Prerequisite: GER 21.</td>
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<tr>
<td>GER 23</td>
<td>College German 3</td>
<td>3 rec 3 cr</td>
<td>GER 22</td>
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<tr>
<td></td>
<td>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 1), and Schiller’s “Don Carlos.” Prerequisite: GER 22.</td>
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<tr>
<td>GER 24</td>
<td>College German 4</td>
<td>3 rec 3 cr</td>
<td>GER 23</td>
</tr>
<tr>
<td></td>
<td>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. Prerequisite: GER 23.</td>
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**ITALIAN**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>ITL 11</td>
<td>Elementary Italian 1</td>
<td>4 rec 4 cr</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Pronunciation; elements of grammar; reading and translation of simple texts; dictation; conversation.</td>
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<tr>
<td>ITL 12</td>
<td>Elementary Italian 2</td>
<td>4 rec 4 cr</td>
<td>ITL 11</td>
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<tr>
<td></td>
<td>Continuation of ITL 11. Prerequisite: ITL 11.</td>
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<tr>
<td>ITL 13</td>
<td>Intermediate Italian</td>
<td>4 rec 4 cr</td>
<td>ITL 12</td>
</tr>
<tr>
<td></td>
<td>Review of grammar; reading; translation and oral discussion of modern texts; composition; dictation; conversation. Prerequisite: ITL 12.</td>
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<tr>
<td>ITL 21</td>
<td>College Italian 1</td>
<td>4 rec 4 cr</td>
<td>ITL 13</td>
</tr>
<tr>
<td>ITL 22</td>
<td>College Italian 2</td>
<td>4 rec 4 cr</td>
<td>ITL 21</td>
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<tr>
<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. Prerequisite: ITL 21.</td>
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<tr>
<td>ITL 23</td>
<td>College Italian 3</td>
<td>3 rec 3 cr</td>
<td>ITL 22</td>
</tr>
<tr>
<td></td>
<td>Introduction to Dante’s “Divina Commedia.” Reading, oral discussion and reports; literary analysis of selected passages from the “Inferno,” “Purgatorio” and “Paradiso.” Prerequisite: ITL 22.</td>
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MODERN LANGUAGE COURSE SELECTION

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<th>Continuing a H. S. Language*</th>
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<tr>
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<td>continuing H.S. language</td>
</tr>
<tr>
<td>3 years</td>
<td>continuing H.S. language</td>
</tr>
<tr>
<td>2 years</td>
<td>continuing H.S. language</td>
</tr>
<tr>
<td>1 year</td>
<td>continuing H.S. language</td>
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<tr>
<td>Taking a New Language</td>
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<tr>
<td>1 or more years</td>
<td>beginning new language</td>
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<tr>
<td>No High School Language</td>
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<tr>
<td>None</td>
<td>beginning new language</td>
</tr>
</tbody>
</table>

| Language 22                  | Language 21 |
| Language 13 and 21           | Language 12, 13 and 21 |

Language 11 and 12

Language 11, 12, and 13

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*1. All students who continue a high school language must take the placement test.
2. A maximum of one semester credit will be given for repeating a year of high school language, provided that the requirement for students continuing a language (Language 21) be completed.
3. Students who show on placement a higher level of ability may with departmental approval be exempted from the prerequisite or allowed to begin the sequence at a higher level.

RUSSIAN

RUS 11 Elementary Russian 1 4 rec 4 cr
Pronunciation; elements of grammar; reading and translation of simple texts; dictation; simple conversation.

RUS 12 Elementary Russian 2 4 rec 4 cr
Continuation of RUS 11. Prerequisite: RUS 11.

RUS 13 Intermediate Russian 4 rec 4 cr
Review of grammar; reading; translation and oral discussion of modern texts; composition; dictation; conversation. Prerequisite: RUS 12.

RUS 21 College Russian 1 4 rec 4 cr

SPANISH

SPN 11 Elementary Spanish 1 4 rec 4 cr
Pronunciation; elements of grammar; reading and translation of simple texts; dictation, conversation.

SPN 12 Elementary Spanish 2 4 rec 4 cr
Continuation of SPN 11. Prerequisite: SPN 11.

SPN 13 Intermediate Spanish 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. Prerequisite: SPN 12.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Lectures</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPN 20</td>
<td>Puerto Rican Literature and Culture</td>
<td>4</td>
<td>4</td>
<td>CR</td>
</tr>
<tr>
<td></td>
<td>Literature and culture of Puerto Rico. Emphasis on outstanding authors, the theatre, poetry, music and the arts. Lectures, reading assignments and class discussions supplemented by films and recordings. <strong>Prerequisite:</strong> SPN 13.</td>
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<tr>
<td>SPN 21</td>
<td>College Spanish 1</td>
<td>4</td>
<td>4</td>
<td>CR</td>
</tr>
<tr>
<td></td>
<td>Emphasis on cultural and historical backgrounds of Spain. Review of grammar, conversation, oral reports, discussion and composition. <strong>Prerequisite:</strong> SPN 13.</td>
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</tr>
<tr>
<td>SPN 22</td>
<td>College Spanish 2</td>
<td>4</td>
<td>4</td>
<td>CR</td>
</tr>
<tr>
<td></td>
<td>Latin-American culture, civilization, history and tradition. Representative writers of Latin America and readings on Caribbean culture and history. Conversation, review of grammar. Outside reading selection to be assigned. <strong>Prerequisite:</strong> SPN 21.</td>
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<tr>
<td>SPN 23</td>
<td>College Spanish 3</td>
<td>3</td>
<td>3</td>
<td>CR</td>
</tr>
<tr>
<td></td>
<td>Nineteenth century Spanish literature. Literary analysis of selections from representative Spanish authors. Oral discussions and reports. <em>Don Juan Tenorio</em> will be read. Outside reading selection to be assigned. <strong>Prerequisite:</strong> SPN 22.</td>
<td></td>
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</tr>
<tr>
<td>SPN 24</td>
<td>College Spanish 4</td>
<td>3</td>
<td>3</td>
<td>CR</td>
</tr>
<tr>
<td></td>
<td>Cervantes' novel <em>Don Quijote</em>. Analysis and reports of selections from original text. Reading and discussion. Written résumés. Selections from Cervantes' <em>Novelas Ejemplares</em>. <strong>Prerequisite:</strong> SPN 23.</td>
<td></td>
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</tr>
<tr>
<td>SPN 25</td>
<td>College Spanish 5</td>
<td>3</td>
<td>3</td>
<td>CR</td>
</tr>
<tr>
<td></td>
<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. <strong>Prerequisite:</strong> SPN 24.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
MUSIC AND ART

Chairman: Professor Marvin Salzberg
Associate Professor: F. Heinz
Assistant Professors: R. Bass, L. Simon, H. Vogel
Instructor: J. Hamell

ART 11 Introduction to Art
2 rec 1 cr
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 Art, with emphasis on Non-Western Cultures
2 rec 1 cr
Art as an integral part of society; aesthetic sense as basic part of man's nature in the diverse societies of Africa, Europe and Latin America. Introduction to art and artistic problems of each society through lectures, film, trips, and special projects including creative studio work. May be taken in fulfillment of the Art 11 requirement.

ART 21 Introduction to Drawing and Painting
4 rec 2 cr
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.

ART 31 Graphic Design
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.

MUS 11 Introduction to Music
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 12 Introduction to Music, with emphasis on Non-Western Cultures
2 rec 1 cr
Nature of music expression; elements of music, including tempo, meter, rhythm, melodic and harmonic material and structure, tone color, structure examined in instrumental and vocal "forms"; examples drawn from non-western cultures. Use of Audio-Laboratory. (May be taken in fulfillment of MUS 11 requirement.)

MUS 15 Twentieth Century Music
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. Prerequisite: MUS 11 or permission of the instructor.

MUS 21, 22, 23, 24 Choral Performance
3 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 31, 32, 33, 34</td>
<td>Orchestral Performance (maximum of 2 cr for non-music majors)</td>
<td>3 rec 1 cr each sem.</td>
<td>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.)</td>
</tr>
<tr>
<td>MUS 41</td>
<td>Theory 1</td>
<td>3 rec 2 cr</td>
<td>(Taken by all music majors). Prerequisite for MUS 42: MUS 41. (Registration only with permission of department).</td>
</tr>
<tr>
<td>MUS 42</td>
<td>Theory 2</td>
<td>3 rec 2 cr</td>
<td>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.</td>
</tr>
<tr>
<td>MUS 43</td>
<td>Theory 3</td>
<td>3 rec 2 cr</td>
<td>(Taken by all music majors). Prerequisite for MUS 44: MUS 43. (Registration only with permission of department).</td>
</tr>
<tr>
<td>MUS 44</td>
<td>Theory 4</td>
<td>3 rec 2 cr</td>
<td>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). Prerequisite for MUS 43: MUS 42; for MUS 44: MUS 43. (Registration only with permission of department).</td>
</tr>
<tr>
<td>MUS 51</td>
<td>Ear Training 1</td>
<td>2 rec 1 cr</td>
<td>(Taken by all music majors). Prerequisite for MUS 52: MUS 51. (Registration only with permission of department).</td>
</tr>
<tr>
<td>MUS 52</td>
<td>Ear Training 2</td>
<td>2 rec 1 cr</td>
<td>The material covered in Theory 1 and 2 will be applied to aural drill, through sight singing and dictation.</td>
</tr>
<tr>
<td>MUS 53</td>
<td>Ear Training 3</td>
<td>2 rec 1 cr</td>
<td>(Taken by all music majors). Prerequisite for MUS 54: MUS 53. (Registration only with permission of department).</td>
</tr>
<tr>
<td>MUS 54</td>
<td>Ear Training 4</td>
<td>2 rec 1 cr</td>
<td>The material covered in Theory 3 and 4 will be applied to aural drill, through sight singing and dictation.</td>
</tr>
<tr>
<td>MUS 61</td>
<td>Keyboard 1</td>
<td>1 rec 1 cr</td>
<td>(Taken by all music majors). Prerequisite for MUS 62: MUS 61. (Registration only with permission of department).</td>
</tr>
<tr>
<td>MUS 62</td>
<td>Keyboard 2</td>
<td>1 rec 1 cr</td>
<td>The material covered in Theory 1 and 2 will be applied to the keyboard.</td>
</tr>
<tr>
<td>MUS 63</td>
<td>Keyboard 3</td>
<td>1 rec 1 cr</td>
<td>(Taken by all music majors). Prerequisite for MUS 64: MUS 63. (Registration only with permission of department).</td>
</tr>
<tr>
<td>MUS 64</td>
<td>Keyboard 4</td>
<td>1 rec 1 cr</td>
<td>The material covered in Theory 3 and 4 will be applied to the keyboard.</td>
</tr>
<tr>
<td>MUS 71</td>
<td>Secondary Piano 1</td>
<td>1 rec 1 cr</td>
<td>Class instruction to attain an elementary facility at the piano. (Taken by all music majors except pianists). Prerequisite for MUS 72: MUS 71. (Registration only with permission of department).</td>
</tr>
<tr>
<td>MUS 72</td>
<td>Secondary Piano 2</td>
<td>1 rec 1 cr</td>
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</tbody>
</table>
MUS 81 Ensemble 1 2 rec 1 cr
Study and performance of standard and contemporary chamber music works for a wide variety of instrumental and vocal combinations. Prerequisite: MUS 91 and 92, or MUS 95 and 96. (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. Prerequisite for MUS 84: a grade of C or higher in MUS 83; MUS 85: a grade of C or higher in MUS 84; MUS 86: a grade of C or higher in MUS 85. (Registration only with permission of department).

MUS 91 Chamber Orchestra 1 2 rec 1 cr
MUS 92 Chamber Orchestra 2 2 rec 1 cr
Study and performance of standard and contemporary chamber orchestral music. (Taken by all instrumentalists). Prerequisite for MUS 91: permission of instructor; for MUS 92: MUS 91. (Registration only with permission of department).

MUS 95 Chamber Chorus 1 2 rec 1 cr
MUS 96 Chamber Chorus 2 2 rec 1 cr
Study and performance of standard and contemporary chamber choral music. (Taken by all vocalists). Prerequisite for MUS 95: permission of instructor; for MUS 96: MUS 95. (Registration only with permission of department).
NURSING*

Chairman: Professor Beatrice Perlmutter
Professor: A. Ehrhart
Associate Professors: A. Gotta, A. Levey, A. Pitman
Assistant Professors: I. Benjamin, D. Darby, V. Foster, A. Fuller, J. Gardinier,
B. Grutter, E. Horowitz, A. Jackson, V. Katz, G. Laveron,
C. Lofstedt, J. Patterson, L. Sabith, E. Sobol, C. Sorge,
C. Tarpey, J. Tarsney, M. Wallack
Instructors: F. Anderson, P. Baskett, A. Blois, M. Church, M. Clinton,
S. Drakes, D. Frank, M. Glacy, G. Glickfield, J. Hart,
K. Hedge, W. Huang, P. Kasmarik, N. Kelly, H. Li-Ma, B. Lundgren,
S. Martin, M. Meenan, C. Monaco, C. Mullings, J. Pecher, M. Perry,
M. Rados, L. Rotando, A. Sclafani, L. Schlachter, A. Smith, R. Tate

NUR 11 Nursing Technology 1
2 lect 2 lab 4 clin 5 cr
Fundamental nursing needs of patients. Clinical laboratory experience provided in
general hospitals.

NUR 12 Nursing Technology 2
2 rec 4 lect 12 clin 10 cr
Nursing care of patients with physical health problems. Clinical laboratory expe-
rience provided in general hospitals. Prerequisites: NUR 11, BIO 21.

NUR 13 Nursing Technology 3
2 rec 4 lect 12 clin 10 cr
Growth and development of individuals and families. Clinical laboratory provides
experience with the early developmental and reproductive phases of the life cycle.
Prerequisites: NUR 12, BIO 28.

NUR 14 Nursing Technology 4
2 rec 4 lect 12 clin 10 cr
Nursing care of patients with long-term physical and emotional illnesses. Clinical
laboratory experience is provided in general and psychiatric hospitals. Prerequi-
ite: NUR 13.

* Courses in Nursing are open only to full-time matriculants in the Nursing Curriculum.
PHYSICS

Chairman: Professor Kalman Pomeranz
Associate Professors: J. Prince, D. Sacher, M. Todorovich
Assistant Professors: L. DeAcetis, M. Erdsneker, R. Gorman

PHY 01 Introduction to College Physics 4 rec 0 cr
Fundamental laws and principles of classical physics; vectors, Newton’s Laws, conversion principles, geometric optics, electromagnetism.

PHY 11 College Physics 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. Prerequisites: Intermediate Algebra or MTH 03 or MTH 11.

PHY 12 College Physics 2 3 rec 2 lab 4 cr
Electricity and magnetism, light, selected topics in modern atomic and nuclear physics. Prerequisite: PHY 11.

PHY 21 Physics for Engineering Technology 1 1 lect 2 lab 2 rec 4 cr
Statics, kinematics, dynamics, work and energy, circular motion, and simple harmonic motion with special applications to problems in technology. Prerequisite: Intermediate Algebra or MTH 03 or MTH 11.

PHY 22 Physics for Engineering Technology 2 1 lect 2 lab 1 rec 3 cr
Fluid dynamics, thermo-dynamics, electricity and magnetism, optics, applied nuclear technology. Prerequisite: PHY 21.

PHY 24 Technical Physics 3 rec 3 lab 4 cr
Basic principles of general physics; applications of physics in the areas of mechanics, heat, electricity and magnetism to selected problems of industrial and technical importance. For Chemical Technology students only.

PHY 31 Physics 1 1 lect 2 rec 2 lab 4 cr
Statics and dynamics of particles and rigid bodies; force and motion; energy and momentum; rotational motion; elasticity and simple harmonic motion. First of a three-semester sequence for students in Engineering Science. This sequence, PHY 31, 32 and 33, is also recommended for science or mathematics majors in a Liberal Arts and Sciences Transfer program. Corequisite: MTH 31.

PHY 32 Physics 2 1 lect 2 rec 2 lab 4 cr
Hydrostatics and hydrodynamics; properties of gases; 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. Prerequisite: PHY 31; corequisite: MTH 32.

PHY 33 Physics 3 1 lect 2 rec 2 lab 4 cr
Electromagnetic theory; direct and alternating currents; electromagnetic waves; geometrical and physical optics; modern physics. PHY 33 is the third semester of the three-semester sequence. Prerequisite: PHY 32; corequisite: MTH 33.

PHY 34 Analytical Mechanics 1 lect 3 rec 4 cr
Principles of mechanics and development of logical procedures of analysis in problem solving. Statics and kinematics of rigid bodies, dynamics of particles and rigid bodies, and mechanical vibrations. Corequisites: PHY 33; MTH 33.
PHY 41  **Electricity and Magnetism**  2 lect 2 rec 3 cr
Electrostatics and magnetostatics; Maxwell's equations; a study of 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.) **Prerequisites:** PHY 33, MTH 33; **corequisite:** MTH 34.

PHY 51  **Atomic and Nuclear Physics**  2 rec 2 lab 3 cr
Deflection of charged particles by electric and magnetic fields; special relativity; Bohr model of the atom; quantum numbers; radio-active decay schemes; detection and measurement of radiation; uses of radioisotopes. (Recommended for students planning to major in mechanical engineering, civil engineering, chemistry or physics.) **Prerequisite:** PHY 33.

PHY 61  **Computer Methods and Programming for Applied Scientific Purposes**  1 lect 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**  1 lect 2 rec 3 cr
Elementary study of the solar system, stellar populations, structure of the universe, and other aspects of modern astronomy. **Prerequisite:** 1 semester of Physics, or SCI 11 or the permission of the department.

PHY 81  **Radiation Physics 1**  3 rec 3 cr
Survey of classical Newtonian physics with emphasis on modern applications; elements of thermodynamics, electricity, and magnetism needed for understanding and operation of x-ray and radiation equipment. **Prerequisite:** BIO 21.

PHY 82  **Radiation Physics 2**  3 rec 3 cr
Physical optics, atomic physics, and interactions between matter and radiation; natural and artificial radioactivity, elements of nuclear physics, and survey of radiation detection techniques. **Prerequisite:** PHY 81.
SECRETARIAL STUDIES

Chairman: Professor Kazuye Takei
Assistant Professors: D. Bluth, R. Farrelly, C. Linn, M. Wise
Instructor: B. Ettinger

SEC 34 Medical Office Practice and Management 1 1 rec 3 lab 2 cr
SEC 35 Medical Office Practice and Management 2 1 rec 3 lab 2 cr
Efficient management of offices of physicians, hospitals, and medical laboratories. Office projects include case records, medical reports, special filing systems and record keeping. Development of skill in the use of transcribing and duplicating machines. Prerequisite: TYP 13.

SEC 37 Medical Office Communications 3 rec 2 cr
Development of effective written communication skills for the medical secretarial assistant. Composition of medical case records from x-ray reports, laboratory analysis, and doctors' diagnoses; letters and reports to patients, private health agencies and others; editing and rewriting medical reports and manuscripts.

SEC 41 Secretarial Practice 4 rec 2 cr
Integration of secretarial skills and cultivation of desirable personal traits and attitudes of the executive secretary. Realistic secretarial office assignments, including theory and practice of filing; operation and use of duplicating and transcription machines. Prerequisite: STE 13 or 17, TYP 13; corequisites: STE 14 or 18 or STE 32.

SEC 45 School Records and Accounts 2 rec 2 cr
Responsibilities of the school secretary; preparation of accident reports, organization and payroll; records of school personnel, supplies and textbooks; accounts of school monies; school headquarters forms; filing.

SEC 47 Educational Problems of School Secretaries 1 2 rec 2 cr

SEC 48 Educational Problems of School Secretaries 2 2 rec 2 cr
Public relations in modern public education; organization of New York City school system according to bylaws, manuals, directives; problems related to mental hygiene, student welfare and public guidance, health and safety; simple methods of research and educational statistics.

STE 01 Refresher Shorthand (Gregg) 3 rec 0 cr
STE 02 Refresher Shorthand (Pitman) 3 rec 0 cr
Designed for students who, because of a prolonged lack of use of shorthand, have lost their skills. Principles of shorthand theory are reviewed with extensive drill sessions to help regain skills.

STE 11 Shorthand 1 (Gregg) 5 rec 3 cr
STE 15 Shorthand 1 (Pitman) 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) 4 rec 3 cr
STE 16 Shorthand 2 (Pitman) 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. Prerequisites: STE 11 or 15, TYP 11.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>STE 13</td>
<td>Shorthand 3 (Gregg)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>STE 17</td>
<td>Shorthand 3 (Pitman)</td>
<td>4</td>
<td>Building extensive business vocabulary. Development of fluency in taking high-speed and sustained dictation, transcription techniques. Speed of 100 words per minute. Prerequisites: STE 12 or 16, TYP 12.</td>
</tr>
<tr>
<td>STE 14</td>
<td>Shorthand 4 (Gregg)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>STE 18</td>
<td>Shorthand 4 (Pitman)</td>
<td>4</td>
<td>Development of expert dictation speed. Integration of office-style dictation. High speed transcription according to office standards. Speed of 120 words per minute. Prerequisites: STE 13 or 17, TYP 13.</td>
</tr>
<tr>
<td>STE 31</td>
<td>Legal Shorthand 1 (Gregg or Pitman)</td>
<td>4</td>
<td>Dictation and transcription of non-litigation materials with attention to development of legal shorthand vocabulary. Minimum speed of 100 words per minute. Prerequisites: STE 12 or 16, TYP 12; or corequisites: STE 13 or 17, TYP 13, LAW 47.</td>
</tr>
<tr>
<td>STE 32</td>
<td>Legal Shorthand 2 (Gregg or Pitman)</td>
<td>6</td>
<td>High speed dictation and rapid transcription of litigation papers and materials—pleadings, orders, judgments, stipulations, ETB’s, appeals. Speed of 120 words per minute. Prerequisites: TYP 13, STE 31.</td>
</tr>
<tr>
<td>STE 34</td>
<td>Medical Shorthand 1 (Gregg or Pitman)</td>
<td>4</td>
<td>Dictation and transcription of material relating to the various medical specialties, such as pediatrics, geriatrics, ophthalmology, orthopedics, obstetrics, and surgery. Development of a medical shorthand vocabulary. Prerequisites: STE 12 or 16, TYP 12; or corequisites: BUS 41, TYP 13, BIO 43, BIO 46.</td>
</tr>
<tr>
<td>STE 35</td>
<td>Medical Shorthand 2 (Gregg or Pitman)</td>
<td>6</td>
<td>Dictation and transcription of letters, conferences and hospital reports. Preparation of materials for physicians' reports in connection with workers' compensation claims. Further expansion of the students' medical shorthand vocabulary. Prerequisites: TYP 13, STE 34, BIO 46; or corequisite: BIO 47.</td>
</tr>
<tr>
<td>TYP 01</td>
<td>Refresher Typing</td>
<td>3</td>
<td>Designed for students who have lost their typing skills. Extensive drill sessions to regain speed and accuracy.</td>
</tr>
<tr>
<td>TYP 11</td>
<td>Typing 1</td>
<td>5</td>
<td>Development of basic skills in the use of the typewriter. Letter writing, tabulation problems and report writing. Speed of 35 words a minute.</td>
</tr>
<tr>
<td>TYP 12</td>
<td>Typing 2</td>
<td>4</td>
<td>Development of speed and control. Advanced letter writing problems, letter production, manuscript writing and tabulation. Speed of 50 words per minute. Prerequisite: TYP 11.</td>
</tr>
<tr>
<td>TYP 13</td>
<td>Typing 3</td>
<td>4</td>
<td>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. Prerequisite: TYP 12.</td>
</tr>
<tr>
<td>ORI 43</td>
<td>Secretarial Senior Orientation</td>
<td>1</td>
<td>For students in Secretarial curricula. Seminar on continuing education after graduation; career planning; survey of employment opportunities and techniques of job-seeking.</td>
</tr>
</tbody>
</table>
SOCIAL SCIENCES

Chairman: Associate Professor Arthur Galub
Professor: H. Robbins
Associate Professors: M. Chang, M. Doroshkin
Assistant Professors: W. Wahlin, A. Wolk
Instructor: H. Harris

ECONOMICS

ECO 21 Microeconomics  
3 rec 3 cr  
Study and analysis of economic principles and policies; theory of pricing and distribution under various market conditions. Government intervention in the market and policy problems. Prerequisite: HIS 12.

ECO 22 Macroeconomics  
3 rec 3 cr  
Study and analysis of factors underlying economic growth and determining the aggregate levels of employment, prices and income. Counter-cyclical measures and international trade relations are examined. (An elective course instead of ECO 21). Prerequisite: HIS 12.

PHILOSOPHY

PHL 21 Introduction to Philosophy  
3 rec 3 cr  
Fundamental questions of human experience and basic problems of philosophy. Historical survey of major philosophers, classical and modern, with emphasis on philosophy of man proposed by contemporary existentialism: Buber, Jaspers, Heidegger and Sartre. Prerequisite: HIS 11, 12.

PHL 31 Philosophy, Science and Human Values  
3 rec 3 cr  
The crisis of values in modern technological cultures. Relationship to values and nature of physical and human sciences. Analysis of major formative movements that have pervaded and characterized contemporary cultures: Positivism, Marxism, Freudianism, Existentialism and Neo-Christianity. Prerequisite: HIS 11, 12.

POLITICAL SCIENCE

POL 21 American National Government  
3 rec 3 cr  
Analysis of American national government and political system; including the Constitution and its origins, the federal system, the judiciary and protection of individual rights, political parties and political behavior, Congress and the Presidency. Prerequisite: HIS 12.

POL 31 Comparative Government  
3 rec 3 cr  
Analyses of governments and politics of some of the leading world powers, with particular attention to Great Britain, France and the Soviet Union. Prerequisite: HIS 11, 12, POL 21.
POL 41  The National Government and Civil Rights since 1954  3 rec  3 cr  
Examination and analysis of the roles played by branches of the National Government in enacting and enforcing civil rights laws. Primary focus on governmental activity concerning Southern Black rights in voting and desegregation of schools from 1954 to the present. Plight of the American Indian, Mexican-American and Puerto Rican is included. Prerequisite: POL 21.

POL 51  Urban Politics  3 rec  3 cr  
Politics and government of the American city: municipal political institutions, suburban and metropolitan government, city-state and city-federal relations, racial and ethnic politics, planning, crime and the police, public education. Prerequisite: POL 21 or permission of instructor.

PSYCHOLOGY

PSY 21  Psychology  3 rec  3 cr  
Scientific method in the understanding of human behavior. Introductory study of growth and development, motivation, emotions and mental health, learning, intelligence and personality evaluation. Prerequisites: HIS 11, 12, or corequisites: HIS 12 and permission of instructor.

PSY 31  Abnormal Psychology  3 rec  3 cr  
Major forms of psychological disorders, such as neuroses, psychoses, psychosomatic disturbances and character disorders; their origin, development and treatment. Prerequisite: PSY 21.

SOCIOLOGY

SOC 21  Sociology  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. Prerequisite: HIS 12.

SOC 31  Minorities in American Society  3 rec  3 cr  
Characteristics of American ethnic minorities and religious groups, including theories explaining prejudice and discrimination. Intergroup relations, with particular reference to the New York metropolitan area, and techniques for relieving and eliminating problems in this field of human relations. Prerequisites: HIS 11, 12, and SOC 21.

SOC 35  Introduction to Social Work  3 rec  3 cr  
Nature of social work and its functions; family case-work, child welfare, psychiatric and medical social work, Correctional services, public welfare and community welfare organizations. Prerequisites: SOC 21 or PSY 21 or permission of instructor.
SPECIAL EDUCATIONAL SERVICES

Chairman: Associate Professor John L. Graves
Assistant Professor: H. Rosenfeld
Instructors: D. Davidson, G. Moerman, K. Polga, F. Shapiro, A. Simon, R. Stephenson, N. Taylor

EDU 11 Seminar and Practicum in Education and the Behavioral Sciences  2 sem/rec (practicum hours to be arranged) 4 cr
Supervised work experience in addition to seminar; seminar relates work experience with the academic content of behavioral science courses, e.g., psychology, education, sociology.

EDU 21 Seminar and Practicum in Education and Communication  2 sem/rec (practicum hours to be arranged) 4 cr
Supervised work experience and seminar which relates work experience to academic content of courses in communication skills, such as English and speech.

EDU 31 Seminar and Practicum in Education and the Art Forms  2 sem/rec (practicum hours to be arranged) 4 cr
Supervised work experience and seminar which relates work experience with content of courses in music, art, dance, and drama.

RDL 02 Reading and Study Skills Laboratory  3 rec 0 cr
Improvement of reading and study skills necessary for college level work. Instruction and practice in reading techniques beginning at students' individual levels; study skills such as studying text books and note-taking.

ESL 11 English as a Second Language, Level One  10 rec 2 lab 2 cr
For students whose native language is not English. Basic grammatical structures, pronunciation, conversation; reading for comprehension and interpretation; dictation and controlled composition. Audio-laboratory practice.

ESL 12 English as a Second Language, Level Two  10 rec 2 lab 3 cr
Continuation of ESL 11.

ESL 13 English as a Second Language, Level Three  10 rec 2 lab 3 cr
Advanced grammatical structures and sentence analysis; oral recitation; interpretation of selected readings; descriptive, narrative and expository writing. Audio-laboratory practice.

ESL 14 English as a Second Language, Level Four  10 rec 2 lab 3 cr
Continuation of ESL 13, with emphasis on advanced reading and writing.
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SPH 01 Speech Clinic 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 10 Speech Clinic 2 rec 0 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 11 Fundamentals of Communication 3 rec 3 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 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. Prerequisite: SPH 11.

SPH 21 Voice and Diction 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.

SPH 25 Argumentation and Debate 3 rec 3 cr
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. Prerequisite: SPH 11.

SPH 31 Oral Interpretation of Literature 2 rec 1 cr
Methods and techniques of oral delivery of appropriate literary selections (prose, poetry and drama). Individual conferences. Prerequisite: SPH 11.

SPH 35 Parliamentary Procedure and Practice 2 rec 1 cr
A practical course in the efficient use of parliamentary procedure as a democratic instrument for group deliberations.
SPH 41 Introduction to Play Production 3 rec 3 cr
Elements of acting, directing, stage managing, lighting, sets, costume and make-up, with emphasis on directing and stage managing. Dramatic productions each semester in which all students in the course participate; rehearsals in addition to the class hours, by arrangement.

SPH 42 Advanced Play Production 3 rec 3 cr
Continuation of SPH 41.

SPH 51 Acting 1 3 rec 2 cr
Introduction to the basic acting problems of analyzing and creating a role. Improvisations, scene practice, script analysis.

SPH 52 Acting 2 3 rec 2 cr
Rehearsal, study, and performance techniques. Problems of auditioning.

SPH 61 Communicative Techniques in the Democratic Procedures 3 rec 3 cr
Practical workshop course which offers students the opportunity to use and analyze democratic procedures such as discussing, campaigning, petitioning, mediating, public informing and other forms of non-violent problem-solving—in relation to problems chosen by the students.

SPH 71 Rhetorical Criticism: Afro-American and Puerto Rican Spokesmen 3 rec 3 cr
Analysis and evaluation of the messages and rhetorical methods of selected Afro-American and Puerto Rican spokesmen.
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COMMUNITY RELATIONS

BRONX COMMUNITY COLLEGE AND THE 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 Soroptomist 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 Planning Board, the Association of Bronx Community Organizations, and the Bronx Council on the Arts, and through cultural programs, the Bronx Community College Lecture Series, and the Bronx Community and College Orchestra Concert Series.

Speakers' Bureau
Bronx Community College maintains a Speakers' Bureau for the benefit of organizations in the community. The Bureau supplies qualified speakers on a variety of subjects from members of the College faculty. For information on subjects and honoraria, contact the Director of the Bureau at the College.

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 and choral 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 to bring a variety of outstanding artists to the campus. These have included Basil Rathbone, Hal Holbrook, the Joffrey Ballet, the Metropolitan Opera Studio, and the Ballets Africains.

**Bronx Community and College Symphony**
The Bronx Community and College Symphony Orchestra is composed of students, faculty members and members of the community. Since its inception in 1964, under the direction of Professor Louis F. Simon, the orchestra has become a major force in the cultural life of the Bronx, having already established a reputation for performing far above the norm.

**BRONX COMMUNITY COLLEGE ADVISORY COMMITTEE**

Donald Darcy, Chairman; Vice-President, Northside Savings Bank
Dr. Renato Azzari, BCC Committee, Board of Higher Education
Charles Bensley, Former Commissioner, Board of Education
George D. Busher, Vice-President, Eugene J. Busher Company, Inc.
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Nathaniel M. Minkoff, Secretary-Treasurer, Joint Board, Dress and Waistmakers Union
Rabbi Samuel Penner, Jacob H. Schiff Center
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Hon. Aileen B. Ryan, Councilman-at-large
Hon. Ruth S. Shoup, BCC Committee, Board of Higher Education
Mrs. David Stein, Riverdale Press
Hon. Felipe N. Torres, Judge, Family Court
RULES AND REGULATIONS FOR THE MAINTENANCE OF PUBLIC ORDER ON CAMPUSES OF THE CITY UNIVERSITY PURSUANT TO ARTICLE 129A OF THE EDUCATION LAW

The tradition of the university as a sanctuary of academic freedom and center of informed discussion is an honored one, to be guarded vigilantly. The basic significance of that sanctuary lies in the protection of intellectual freedoms: the rights of professors to teach, of scholars to engage in the advancement of knowledge, of students to learn and to express their views, free external pressures of interference. These freedoms can flourish only in an atmosphere of mutual respect, civility and trust among teachers and students, only when members of the university community are willing to accept self-restraint and reciprocity as the condition upon which they share in its intellectual autonomy.

Academic freedom and the sanctuary of the university campus extend to all who share these aims and responsibilities. They cannot be invoked by those who would subordinate intellectual freedom to political ends, or who violate the norms of conduct established to protect that freedom. Against such offenders the university has the right, and indeed the obligation, to defend itself. We accordingly announce the following rules and regulations to be in effect at each of our colleges which are to be administered in accordance with the requirements of due process as provided in the Bylaws of the Board of Higher Education.

With respect to enforcement of these rules and regulations we note that the Bylaws of the Board of Higher Education provide that:

THE PRESIDENT

The president, with respect to his educational unit, shall:
"a. Have the affirmative responsibility of conserving and enhancing the educational standards of the college and schools under his jurisdiction;
"b. Be the advisor and executive agent to the Board and of his respective College Committee and as such shall have the immediate supervision with full discretionary power in carrying into effect the bylaws, resolutions and policies of the Board, the lawful resolutions of any of its committees and the policies, programs and lawful resolutions of the several faculties;
"c. Exercise general superintendence over the concerns, officers, employees and students of his educational unit*.*"

RULES

1. A member of the academic community shall not intentionally obstruct and/or forcibly prevent others from the exercise of their rights. Nor shall he interfere with the institution's educational process or facilities, or the rights of those who wish to avail themselves of any of the institution's instructional, personal, administrative, recreational, and community services.

2. Individuals are liable for failure to comply with lawful directions issued by representatives of the University/college when they are acting in their official capacities. Members of the academic community are required to show their identification cards when requested to do so by an official of the college.

3. Unauthorized occupancy of University/college facilities or blocking access to or from such areas is prohibited. Permission from appropriate college authorities must be obtained for removal, relocation and use of University/college equipment and/or supplies.

4. Theft from or damage to University/college premises or property, or theft of or damage to property of any person on University/college premises is prohibited.

5. Each member of the academic community or an invited guest has the right to advocate his position without having to fear abuse, physical, verbal, or otherwise from others supporting conflicting points of view. Members of the academic community and other persons on the college grounds, shall not use language or take actions reasonably likely to provoke or encourage physical violence by demonstrators, those demonstrated against or spectators.

6. Action may be taken against any and all persons who have no legitimate reason for their presence on any campus within the university/college, or whose presence on any such campus obstructs and/or forcibly prevents others from the exercise of their rights or interferes with the
institution's educational processes or facilities, or the rights of those who wish to avail themselves of any of the institution's instructional, personal, administrative, recreational, and community services.

7. Disorderly or indecent conduct on University/college-owned or -controlled property is prohibited.

8. No individual shall have in his possession a rifle, shotgun or firearm or knowingly have in his possession any other dangerous instrument or material that can be used to inflict bodily harm on an individual or damage upon a building or the grounds of the University/college without the written authorization of such educational institution. Nor shall any individual have in his possession any other instrument or material which can be used and is intended to inflict bodily harm on an individual or damage upon a building or the grounds of the University/college.

PENALTIES

1. Any student engaging in any manner in conduct prohibited under substantive Rules 1-8 shall be subject to the following range of sanctions as hereafter defined in the attached Appendix: admonition, warning, censure, disciplinary probation, restitution, suspension, expulsion, ejection, and/or arrest by the civil authorities.

2. Any tenured or non-tenured faculty member, or tenured or non-tenured member of the administrative or custodial staff engaging in any manner in conduct prohibited under substantive Rules 1-8 shall be subject to the following range of penalties: warning, censure, restitution, fine not exceeding those permitted by law or by the Bylaws of the Board of Higher Education, or suspension with/without pay pending a hearing before an appropriate college authority, dismissal after a hearing, ejection, and/or arrest by the civil authorities. In addition, in the case of a tenured faculty member, or tenured member of the administrative or custodial staff engaging in any manner in conduct prohibited under substantive Rules 1-8 shall be entitled to be treated in accordance with applicable provisions of the Education Law or Civil Service Law.

3. Any visitor, licensee, or invitee, engaging in any manner in conduct prohibited under substantive Rules 1-8 shall be subject to ejection, and/or arrest by the civil authorities.

APPENDIX

SANCTIONS DEFINED:

A. ADMONITION.
An oral statement to the offender that he has violated university rules.

B. WARNING.
Notice to the offender, orally or in writing, that continuation or repetition of the wrongful conduct, within a period of time stated in the warning, may be cause for more severe disciplinary action.

C. CENSURE.
Written reprimand for violation of specified regulation, including the possibility of more severe disciplinary sanction in the event of conviction for the violation of any university regulation within a period stated in the letter of reprimand.

D. DISCIPLINARY PROBATION.
Exclusion from participation in privileges or extracurricular university activities as set forth in the notice of disciplinary probation for a specified period of time.

E. RESTITUTION.
Reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages.

F. SUSPENSION.
Exclusion from classes and other privileges or activities as set forth in the note of suspension for a definite period of time.

G. EXPULSION.
Termination of student status for an indefinite period. The conditions or readmission, if any is permitted, shall be stated in the order of expulsion.

H. COMPLAINT TO CIVIL AUTHORITIES.

I. EJECTION.

Adopted by the Board of Higher Education June 23, 1969, Calendar No. 3(b)
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 $100 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 Gifts

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.
DIRECTIONS TO THE COLLEGE

B  BCC Main Center  120 East 184 St.
C  Concourse Center  2315 Grand Concourse
J  Jerome Avenue Center  2246 Jerome Ave.
F  Concourse Faculty Office  2382 Grand Concourse
K  Kingsbridge Center  2507 Jerome Ave.
Z  Fordham Road Center  2468 Jerome Ave.
These centers can be reached by the IND (East 183 Street or Fordham Road Stations) or by the IRT, Woodlawn-Jerome Ave. train (East 183 St. or Fordham Road Stations) or by Bus Lines #1, 2, 19, 24, 25.
N  Nursing Center & Residence Hall  Pelham Parkway & Eastchester Road
Can be reached by bus #12 or 12A & east-west buses on Fordham Road and Pelham Parkway, or the Morris Park Ave. Bus.
H  Bronx High School of Science Center  75 West 215 St.
Can be reached by the IND or IRT Woodlawn-Jerome Ave. train (Bedford Park Blvd. station) or by the following bus lines: #1, 2, 28.
P  Park Avenue Center  4725 Park Ave.
Can be reached by the following bus lines: #12, 12A, 19, 20, 41 and by the Third Avenue bus or the Third Avenue El.
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