bronx community college
of the city university of new york

catalog 1974-75
catalog 1974-1975

bronx community college of the city university of new york
under the program of the state university of new york

university avenue and west 181 street • the bronx, new york 10453 • tel. 367-7300
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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.
introducing bronx community college

PHILOSOPHY AND AIMS OF THE COLLEGE

Quality Higher Education for the Many

Bronx Community College was founded in 1957 to offer ever-widened opportunities for higher education to the many. In September, 1970, with the advent of the City University's policy of open admissions, the College's original commitment was dramatically extended as it welcomed hundreds of students who previously might have been denied a college education. Although the size and diversity of the new student body has placed considerable demands upon the College's facilities and resources, open admissions offers the College an unprecedented opportunity to demonstrate its commitment to provide quality higher education for the many.

Traditionally, a community college aims to help students acquire the knowledge and develop the skills characteristic of higher education. Its functions have been to offer a broad, comprehensive and useful educational experience to prepare for a life of independent and creative thinking, dignity and community participation.

In brief, community college education has combined sound general education in the liberal arts with meaningful and relevant professional or career preparation.

At Bronx Community College today, the primary emphasis is again upon the relationship of the individual faculty member to the individual student. Perhaps more than ever before, administration and faculty recognizes the new responsibilities and challenges offered by open admissions. Bronx Community College accepts this responsibility and welcomes this challenge.
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, Computer Science, Engineering Science, Performing Arts-Music, and Pre-Pharmacy prepare students for continued study toward the baccalaureate degree, or professional and graduate studies.

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.

Bronx Community College offers courses of study, both day and evening, that lead to a career after two years, or transfer to a four-year college.

Career programs leading to an Associate in Applied Science degree (A.A.S.) include accounting, data processing, marketing management and sales, chemical technology, education associate, electrical engineering technology, mechanical engineering technology, medical laboratory technology, nursing, plastics technology, and secretarial studies.

Transfer programs include business administration, business teaching, computer science, engineering science, pre-pharmacy, and music. The Liberal Arts offer studies in art, biology, Black and Puerto Rican studies, chemistry, communication arts and sciences, dance, economics, English, French, German, health education, history, Italian, mathematics, philosophy, physical education, physics, political science, psychology, sociology, Spanish, and theater.
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.
The establishment of Bronx Community College in 1957 crowned a decade of effort by civic-minded groups in Bronx County. To meet the growing need for increased higher education facilities in the "Borough of Universities and Progress," 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, in accordance with the State Education law, after which the new college became a reality on April 11, 1957.

In October, 1957, the Board of Higher Education named Dr. Morris Meister, principal of the nationally known Bronx High School of Science, president of Bronx Community College. President Meister took office February 1, 1958, and his staff began to plan the growth and development of the College, preparatory to admitting students in February, 1959.

The half-century old, but structurally sound, Bronx High School of Science building at Creston Avenue and 184 Street was chosen as the site immediately available. By 1972, the College was renting and occupying seven additional centers within a six-block radius serving approximately 10,000 matriculated students.

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 seventeen.

Dr. James A. Colston became the second president of Bronx Community College on August 1, 1966, following Dr. Meister's retirement.
Bronx Community College moved virtually all its operations to the site of the former NYU uptown campus at University Avenue and West 181 Street beginning with the September 1973 semester. The campus encompasses more than 50 acres on a bluff overlooking the Harlem River. Bronx Community College students have the same facilities that have served the university and graduate school so well. There are modern classrooms, lecture halls and laboratories; student center, cafeteria and lounges; shaded walks and a grassy mall; athletic fields, tennis courts, and a swimming pool; and advanced media and library facilities. The Hall of Fame, a national landmark, will continue to be open to the public.

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.

The Office of Continuing Education currently offers more than 30 programs to carry out the College's commitment to its community. Last year, some 9,000 persons were served.

The College’s important contribution to the cultural life of its students and the borough is felt through the Bronx Community and College Symphony, the Bronx Community and College Choir, work with the Bronx Council on the Arts, and, most of all through the more than 120 events coordinated annually by our Office of Special Events. Concerts, plays, films, speakers, and art exhibits are open to both students and the public, some at modest prices, many free.
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 60-89.
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, Marketing Management and Sales, 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 Marketing Management and Sales on the secondary level

3. **Business (Career)**
   - Career Program — A.A.S. Degree
   - Curricula: Accounting, Marketing Management and Sales, Data Processing (Programming)

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

5. **Education — Child Care 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

9. **Liberal Arts and Sciences**
   - 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

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**OFFICE OF EVENING AND CONTINUING EDUCATION**

Dean of Evening and Continuing Education: Dr. Manuel Stillerman
Associate Dean of Evening and Extension Education: Dr. Gloria L. Hobbs
Associate Dean of Continuing Education: Mr. Seymour Reisin
Assistant to the Dean of Evening and Continuing Education: Mr. Thomas B. Stribling
Director of Education for Aging Center: Dr. Ronald Szczypkowski
Coordinator of Veterans' Affairs: Mr. William Webb
Evening Education

All students, regardless of matriculation status, may register for courses at any time of the day or evening in any of the centers where the College maintains classes.

Extensive course offerings leading to the Associate in Arts (A.A.), Associate in Sciences (A.S.), and Associate in Applied Science (A.A.S.) degrees are available to students during the evening hours at the main campus. In most curricula, it is possible to complete all requirements for these degrees in the Evening Session. These courses may be transferred to an appropriate curriculum of another institution. The instructors of all evening courses are either full-time or adjunct members of the Bronx Community College faculty.

In addition to taking courses during the day and evening, students may also enroll in courses on weekends and at extension centers located throughout the Bronx. Course offerings in the extension centers are determined by demand and space availability. The following are extension centers where college-credit courses are presently being offered: Bronx River Neighborhood Center, Bronx State Hospital, Columbus High School Center, Creston Avenue Center, Morrisania Hospital, Soundview Mental Health Center, and Tremont Crisis Center.

*Major courses in nursing and music are only scheduled during the day.

Continuing Education and Community Services

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 or community service programs, may include non-credit adult education courses given at neighborhood sites. Public and private agencies, voluntary organizations and commercial firms desiring educational upgrading opportunities for members, employees or community residents may

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 to all students, no matter when or where they attend classes.
call upon the college for a variety of services and assistance.

Examples of programs undertaken include:

**Bronx State Hospital**—Approximately 200 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. The program leads to a liberal arts psychology option degree.

**Municipal and State Civil Service Programs**—New York City and State civil service employees may prepare for promotional examinations or meet qualifications for selected civil service positions. Courses are offered during late afternoon and evening.

**Licensed Practical Nurse Program**—Specialized courses for licensed practical nurses offered each semester have been developed in cooperation with the Licensed Practical Nurse Association and Local 1199 of the Drug and Hospital Employees Union, AFL-CIO.
**Medical Assistants Program**—Medical Assistants employed by doctors are eligible to participate in a 30-hour course prepared by the college's Biology Department and the Bronx County Medical Assistants Association.

**Senior Citizen Day Care Program**—Senior citizens affiliated with selected senior citizen centers participate, tuition free, in courses offered under the auspices of Bronx Community College.

**Mini-Semester Program**—Residents of Parkchester, Riverdale, and Bronx River Neighborhood Center may enroll in a series of non-credit courses conducted within the housing developments. Additional non-credit courses are offered at the College Saturday mornings and weekday evenings.

**Adult Learning Center**—Bronx residents or workers, age 16 or over, may avail themselves of facilities provided by the College’s Adult Learning Center at 120 East 184 Street. Persons preparing for a career, or seeking upgrading within a career, can receive individualized diagnostic and prescriptive approach to skills upgrading. Participants may schedule themselves for use of the multimedia, self-instructional facilities at the Center, where individual tutoring and counseling are also available.

**College Adapter Program**—Employees of Bronx State Hospital participate in special programs for college-oriented high school graduates who require 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.

**Teen-Age Water Safety Program**—Teen-agers, 17 years old and over, from families of limited economic means are eligible to participate in a short-term water safety program that qualifies successful candidates for afterschool and summer employment as Water Safety instructors or lifeguards.

**Counseling Placement Project**—Under the provisions of a Vocational Education Act grant, the college has provided individualized guidance services for adults enrolled in the various continuing education and community service programs.

**Summer Neighborhood Sports Program**—Neighborhood youngsters participate in a street-gymnasium-pool summer sports program under the supervision of the college’s Department of Health and Physical Education.
Right to Read—Two community-based adult reading centers in the south and east Bronx have been established in cooperation with the federal Right to Read Program, South Bronx Model Cities, Bronx River Neighborhood Center, and the New York Public Library. Instruction is provided in basic conversation skills prior to entry into a reading program suitable for adults who speak and read little or no English.

Education for Aging Center—Over 100 older adults have enrolled in credit and non-credit courses in basic education held at senior citizen centers, nursing homes, churches, and at the college. The Center plans both preventive and curative education for aging programs and offers aid to community agencies in program development, problem-solving, research, and evaluation.

Data Processing Certificate Program—Persons who wish to enter the commercial data processing field complete requirements for credit courses in data processing, business mathematics and English. Students who meet the entrance requirements attend classes tuition free and receive a certificate upon successful completion of 22 credits. Job placement assistance and counseling are program components.

Veterans' Readiness Institute—Vietnam-era veterans without a high school diploma enroll in a three-month college program. Veterans receive intensive instruction in communication and mathematics skills as well as counseling designed to help them plan their educational and vocational futures. Enrollees are entitled to G.I. Bill benefits for full-time participation in the program.

Multimedia First Aid Program—Under the provisions of the Occupational Safety and Health Act, all industrial and trade firms and public and private organizations must obtain first aid training for a specified percentage of employees. The college's eight-hour multimedia first aid course fulfills the legal requirement of the federal legislation.
Cardiopulmonary-Resuscitation Program—All health professionals and paraprofessionals may participate in a nine-hour cardiopulmonary-resuscitation course held at Montefiore Hospital under the direction of staff of the College's Department of Nursing.

Spanish Language Training Programs—Intensive, short-term on-site language training programs are being offered to agency employees who require specialized proficiency in dealing with the public. Currently participating in these programs are employees of the New York Telephone Company, Kingsbridge Heights Nursing Home, and the Tremont Crisis Center, a community outreach psychiatric screening center.

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 applies during the Summer Session.

COOPERATIVE EDUCATION INTERNSHIP PROGRAM

Director: Prof. Constance Lerner

The Cooperative Education Internship Program is now in effect for matriculated students in the Marketing Management and Sales, Secretarial Studies, Accounting, and Data Processing curricula. It will be expanded in the future to include career students in the areas of the Technologies.

Professional Job Coordinators locate desirable employers and assist students in obtaining worthwhile job assignments. The Job Coordinators stay in contact with the student and the employer throughout the two semesters of work assignment. The student receives college credit and the prevailing wage rate for the off-campus assignment.
DIRECTORY OF FACILITIES AND OFFICES

Auditoriums
The Main Auditorium is on the lowest floor of the Gould Memorial Library. Its capacity of 800 enables its use for a 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, and there is another 900-seat auditorium in the former Main Building at 120 East 184 Street.

Bookstore
The bookstore in the Gould Student Center, operated as a private concession under contract with the College, 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.

Cafeterias
Cafeterias, located in Silver Hall and the Gould Student Center, are operated on a concession basis for the convenience of students and faculty. In addition to the meals and refreshments available, the facilities are used for receptions and meetings.

The cafeteria in the Nursing Center is operated for students and staff as part of the College's contract with the Department of Hospitals.

Computer Center
The Center serves both administrative and academic needs of the College. Vital information necessary for the proper functioning of the College is processed here. This includes admissions, registration, and end-of-semester grade reporting. All computer programs written by students and faculty are processed on the Center's IBM 360. A large Digital Equipment Corp. PDP11/40 will be available for student use commencing in September 1974. Hands-on experience, demonstrations, and instructional and research programming are also provided.
Evening and Continuing Education Division
The Office of the Dean of Evening and Continuing Education is in Stevenson House. Office hours are 9 a.m. to 10:30 p.m. on those evenings when classes are in session.

Health Service
The main office of the Health Service is Loew Hall. When classes are in session, a registered nurse is on duty from 8 a.m. to 10:30 p.m. Monday through Thursday, and 8 a.m. to 6 p.m. on Friday. The Nursing Center has a 24-hour health service.

Nursing Center
The many facilities of the 13-story Nursing School and Residence located at Pelham Parkway South and Eastchester Road are listed on page 22. The Office of the Administrator of the Nursing Center is on the first floor of that center.

Public Information Office
The Public Information Office is located in Gould Memorial Library. Information about cultural events and college activities is available there.

Student Council Office
The Day and Evening Council Offices are in Gould Student Center.

Student Lounges
Students are invited to use and enjoy these recreation areas in the Gould Student Center and in many other buildings on campus.

Student Publications Office
The office for student publications is at the Gould Student Center. The staffs of The Communicator, Infinity, 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 in Alumni Gym, the former Main Building, and Nursing Center, are used by Health and Physical Education classes and college athletic teams. They are also available for student and faculty recreational use during specified hours.
introducing bronx community college
THE NURSING CENTER

Administrator: Dr. Beatrice Perlmutter

The Bronx Community College Nursing Center is a unique and modern educational facility devoted to the education of nurses. The 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 Health and Hospitals Corporation which has made possible an expanded program for the education of nurses.

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 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.
Chief Librarian: Professor Edwin W. Terry
Professor: J. Kolliner
Assistant Professors: J. Baum, D. Canty, E. Carra­
ture, D. Hadgis, O. Klymowycz, R. Lane, C.
Schumacher, J. Skurdenis
Instructor: E. Palmer

Library and Learning Resources at Bronx Community College is constituted as an instructional department. It is a materials center for student research and supplements classroom instruction through its print and nonprint collections.

Library and Learning Resources has two loca­
tions: University Heights and the Nursing Cen­
ter. The collection at the Nursing Center is
designed to serve the special needs of the
nursing program.

The print collection presently exceeds 50,000
volumes and is growing rapidly. The library
currently receives close to 600 periodicals cover­
ing a wide variety of subjects and maintains
extensive back files. The collection includes
books for recreational reading and a pamphlet
file on topics of current interest.

Nonprint Services provides many types of media
for students and faculty. In the learning resources
center 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 and Learning Resources staff pro­
vides 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 in
research procedures.

INSTITUTIONAL RESEARCH

Director: Dr. Norman Eagle
Remediation Evaluation Specialist:
Dr. Thea Benenson
Research Assistant: Mr. Madan Capoor

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 con­
tributes to the evaluation of a wide range of
college functions such as placement, remedial,
developmental, and experimental programs.
Follow-up studies of students are conducted to
gauge the success with which the college pre­
pares students for careers, professions, and
further education. Surveys of student opinion
are conducted to keep faculty and administra­
tion abreast of student concerns, problems, and
needs. The aim of all studies is to contribute to
the improvement of the educational programs
offered and to the maximization of student
success.
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
University Avenue and West 181 Street
The Bronx, New York 10453

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: Mr. H. Erdsneker
Associate 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 admission requirements and follows the admission procedures.

BASIC ADMISSION REQUIREMENTS

All applicants must meet the basic requirements: a high school diploma or equivalent, residence and health as described below.
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. USAF1 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. 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, pages 35-36.)

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 146, 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 $10, 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.

Choosing a 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, reading, mathematics, speech, foreign languages, business and technical 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. Any courses assigned as a result of these placement tests become required courses for the students, and must be taken as soon as possible.

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 student’s 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). 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**

<table>
<thead>
<tr>
<th>For Admission to the program or curriculum in:</th>
<th>AMERICAN HISTORY</th>
<th>ENGLISH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BUSINESS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting (A.A.S.)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Administration (A.A.)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Data Processing (A.A.S.)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Marketing Mgt. &amp; Sales (A.A.S.)</td>
<td>1</td>
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</tr>
<tr>
<td>Teaching of Bus. Subjects (A.S.)</td>
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<tr>
<td><strong>CHEMICAL TECHNOLOGY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Technology (A.A.S.)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Plastics Technology (A.A.S.)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Pre-Pharmacy (A.A.S.)</td>
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<td>4</td>
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<tr>
<td><strong>EDUCATION ASSOCIATE (A.A.S.)</strong></td>
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<tr>
<td><strong>ENGINEERING</strong></td>
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<tr>
<td>Engineering Science (A.A.)</td>
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<tr>
<td>Electrical Technology (A.A.S.)</td>
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<td>4</td>
</tr>
<tr>
<td>Mechanical Technology (A.A.S.)</td>
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<td>4</td>
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<tr>
<td><strong>LIBERAL ARTS &amp; SCIENCES (A.A. &amp; A.S.)</strong></td>
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<td>4</td>
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<tr>
<td><strong>MEDICAL LAB. TECHNOLOGY (A.A.S.)</strong></td>
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<td>4</td>
</tr>
<tr>
<td><strong>NURSING (A.A.S.)</strong></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>PERFORMING ARTS—MUSIC (A.A.S.)</strong></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>SECRETARIAL STUDIES (A.A.S.)</strong></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>TEACHING SEC. STUDIES (A.A.)</strong></td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

*While not required, it is highly desirable for students to have completed these recommended units before entering.*
Students with any deficiencies in the recommended units but meeting all other basic admissions requirements, must remove the deficiencies before taking college level courses in the area.

**Explanation of Mathematics Units**

1 unit must be:
- 9th Yr. Math (Elem. Algebra)

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

3 units should include:
- 9th Yr. Math (Elem. Algebra)
- 10th Yr. Math (Plane Geometry)
- 11th Yr. Math (Int. Alg. and Trig.)

3½ units should include:
- 9th Yr. Math (Elem. Algebra)
- 10th Yr. Math (Plane Geometry)
- 11th Yr. Math (Int. Alg. and Trig.)
- Advanced Algebra

<table>
<thead>
<tr>
<th>FOREIGN LANGUAGE</th>
<th>MATHEMATICS</th>
<th>SCIENCE</th>
<th>APPROPRIATE ELECTIVES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
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<td>16</td>
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<td>1</td>
<td>1</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
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<td>9</td>
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<td>16</td>
</tr>
<tr>
<td>0</td>
<td>2½</td>
<td>1</td>
<td>7½</td>
<td>16</td>
</tr>
</tbody>
</table>

or 2 units or no languages

<table>
<thead>
<tr>
<th>FOREIGN LANGUAGE</th>
<th>MATHEMATICS</th>
<th>SCIENCE</th>
<th>APPROPRIATE ELECTIVES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
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</tr>
<tr>
<td>0</td>
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<td>1</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>16</td>
</tr>
</tbody>
</table>
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 Admissions 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 $10.00 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.
Tuition and Fees
Qualified applicants from other countries pay tuition as follows:
$600 per semester for full-time students; $40 per contact hour for part-time students. (See page 35 for additional special and general fees.)

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.)
REGISTRAR’S OFFICE

Registrar: Mr. H. Erdsneker
Associate Registrars: Mr. A. Glasser, Mrs. M. Kraft
Assistant Registrars: Ms. A. Frank, Mr. R. Lewis, Mr. A. May, Miss R. Tobin, Miss S. Turk

The Registrar’s Office will supply information to students about registration, 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 on the special form provided by that office. There is a charge of $2 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.
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 available several weeks before the announced registration period.

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

Early Registration

At a designated time during the semester, matriculated students are required to indicate the courses they plan to take during the following semester. The Counselor should be consulted at this time to determine the next appropriate steps in his program. Since early registration involves completing registration before the usual time and planning for the subsequent semesters, matriculant students should take advantage of this opportunity and consult with their Counselors 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 Counselors during registration. Counselors of the Department of Student Development are available by appointment throughout the semester. Appointments to see Counselors may be made in the Office of Counseling.

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 at any time 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. Students taking Day division courses or any combination of Day and Evening division courses (Includes registration, library, laboratory, audio-laboratory, breakage, malpractice insurance, student activities and graduation fees.) $35.00/Sem.

2. Students taking Evening division courses only (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
   (Payable at registration time if not paid before.) $10.00

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

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

4. Late Registration $5.00

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

6. Duplicate I.D. Card Fee $2.00

7. Duplicate Record $1.00
# Tuition Fees

<table>
<thead>
<tr>
<th></th>
<th>FULL TIME (12 credit weight or more)</th>
<th>PART TIME (fewer than 12 credit weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MATRICULANT</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bona-fide New York City Resident</td>
<td>Free Tuition</td>
<td>Free Tuition</td>
</tr>
<tr>
<td>New York State Resident with Certificate of Residence</td>
<td>$275</td>
<td>$20/contact hour</td>
</tr>
<tr>
<td>New York State Resident without Certificate of Residence</td>
<td>$600</td>
<td>$40/contact hour</td>
</tr>
<tr>
<td>Non-New York State Resident including Foreign Student</td>
<td>$600</td>
<td>$40/contact hour</td>
</tr>
<tr>
<td><strong>NON-MATRICULANT</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bona-fide New York City Resident</td>
<td>$275</td>
<td>$15/contact hour</td>
</tr>
<tr>
<td>New York State Resident with Certificate of Residence</td>
<td>$275</td>
<td>$20/contact hour</td>
</tr>
<tr>
<td>New York State Resident without Certificate of Residence</td>
<td>$600</td>
<td>$40/contact hour</td>
</tr>
<tr>
<td>Non-New York State Resident including Foreign Student</td>
<td>$600</td>
<td>$40/contact hour</td>
</tr>
</tbody>
</table>

***EXCEPTIONS***

1. For any student who has received any degree from any college of The City University, either wholly or partially tuition free . . . . . . . $275/sem. if full-time or $20/contact hr. if part-time.

2. A student exceeding by more than 4 credits earned the number of credits required for a degree, for those credits in excess of 4 above the degree requirement—$18 contact hour.
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 39). These students must present evidence of enlistment or induction orders.

VETERANS' AFFAIRS

Information and advice concerning veterans will be furnished by the Office of Veterans' Affairs.

All new students planning to receive education benefits under "G.I." Bills should contact the Veteran's Administration, 252 Seventh Ave., New York City, before registration, to make arrangements for benefits.

Currently enrolled BCC students eligible to continue receiving educational benefits while at BCC must present their current Bursar's Receipt at the Registrar's Office each semester.

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

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

*Students who wish to withdraw before the opening date of classes or who wish only to drop a course should apply in person directly to the Registrar’s Office.
A full 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.

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

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

In order to obtain a grade and full academic credits, a student must attend approximately 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.

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 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% |

In instances where students who are drafted into the military services do not attend for sufficient time to qualify for a grade, a 100 percent refund of tuition and all other fees except the application fee will be made.
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 on page 42.

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 60-89.

Residents of New York City classified as matriculants attend tuition-free. (See exceptions, page 36.) Non-residents of New York City must pay tuition according to the Fee Schedule on page 36, unless they are matriculants in the Nursing curriculum.

Non-Matriculated Student:
A non-matriculant is a student who a) has lost matriculation after once having been granted that status, or b) presented incomplete records for admission, or c) applied too late, or d) transferred from another college with an unsatisfactory record.
A non-matriculant 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 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-matriculants with cumulative index below that listed in Column B of the Index Classification Chart become Non-Degree students. Non-Degree students may regain non-matriculant status by attaining a minimum cumulative scholastic index as listed for their “credits taken” category in Column B of the Index Classification Chart. Non-Degree students are apprised of the fact that they have a “very small possibility” of ever receiving a degree. Students in this category have last priority at registration.

**GAINING MATRICULATION**

Non-matriculants may attain matriculant status as follows:

1. Reclassification by the Registrar's Office at the time that all the required official records and fees are received, and if such records indicate that the student had met the requirements for matriculation set for the student's initial semester at the College.

2. Effective at end of Spring 1972 semester, students who have been academically dismissed or present records of low achievement level from other colleges may gain matriculation status by completing 10 or more credits with at least a 2.00 index in Bronx Community College course work in a well-balanced program; or 6 to 9 credits with at least a 3.00 index in Bronx Community College course work in a well-balanced program; and a cumulative index (Bronx Community College work plus applicable advanced standing transfer credits) which, according to the Index Classification Chart, places the student in the matriculant category.

3. Effective at end of Spring 1972 semester, the currently enrolled BCC non-matriculant who has this status due to admission cutoffs being in effect and applicable to him at the time of admission to BCC may earn matriculation by having 10 or more credits with at least a 2.00 index in Bronx Community College course work in a well-balanced program; or 6 to 9 credits with at least a 3.00 index in Bronx Community College course work in a well-balanced program.

**Non-Degree Students**

Non-degree students may become non-matriculants by attaining a minimum cumulative scholastic index as listed for their “credits taken” category on the Index Classification Chart.
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 (or total credits taken plus credit weight)</th>
<th>Column A Limited program must be assigned if cumulative index is lower than that listed</th>
<th>Column B Loss of current matriculant (or non-matriculant) status if index is lower than listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-11½</td>
<td>1.50</td>
<td>No reclassification</td>
</tr>
<tr>
<td>12-23½</td>
<td>1.67</td>
<td>No reclassification</td>
</tr>
<tr>
<td>24-37½</td>
<td>1.70</td>
<td>1.54</td>
</tr>
<tr>
<td>38-51½</td>
<td>1.88</td>
<td>1.74</td>
</tr>
<tr>
<td>52-63½</td>
<td>1.95</td>
<td>1.87</td>
</tr>
<tr>
<td>64-73½</td>
<td>2.00</td>
<td>1.95</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:

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.

Until such time as a student has taken 24 degree credits, the index used for matriculation classification according to the above chart will be the index of credit and credit weight courses combined. After a student has taken 24 degree credits, the index used for matriculation classification according to the above chart will be the index of credit courses only. In other words, students who have non-degree credit weight courses as part of their college program, should be aware that the basis of index classification chart actions changes upon completion of 24 degree credits and that thereafter, only performance in degree credit courses will be considered for index chart classifications and award of the degree.

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. A student who loses matriculant status may regain this status by achieving a minimum cumulative scholastic index as listed for his credit taken category.
DEGREE REQUIREMENTS

The required courses for the various degrees are listed in the sections on the Curricula and Programs (See pages 60 to 159.)

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 at BCC to remove deficiencies in preparatory work, 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 part of 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.

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 reevaluation of their status.

REINSTALLMENT

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 July 30; to the Spring Semester, December 30; to the Summer Session, April 30.

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 who are taking at least 12 credits or the equivalent in program load. Students 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, U.S. 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.
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 Science courses taken)
- CMS 11
- ART 10, 11 and/or 12
- MUS 10, 11 and/or 12
- All Health and Physical Education 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.

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
Non-matriculated students are permitted to take up to and including a program weight of 10 credits in any one semester. However, at the discretion of the Registration Adviser, non-matriculated students may register for a full-time program. The student may appeal to the Dean of Evening and Continuing Education, or his designee, the decision of a Faculty Adviser with regard to credit limit.

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 42), 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.

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 of 10 credits for a student with full-time, extra-college responsibility.

Programs Exceeding Limits

A matriculated 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 examinations, 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.

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>
<tr>
<td>R*</td>
<td>Repeat</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>S</td>
<td>Unsatisfactory (Assigned at mid-term only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory (Assigned at mid-term only)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Applicable only to certain non-credit remedial courses.
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>NC</td>
<td>Unofficial withdrawal; no academic penalty.</td>
</tr>
<tr>
<td>W</td>
<td>Withdrew; no academic penalty.</td>
</tr>
</tbody>
</table>

Withdrawal Procedure
Students wishing to withdraw from any course in which they are registered may do so at any time prior to completion of all instruction and evaluative procedures of the course. The formal procedure for withdrawal shall be determined by the Registrar.

a. Grades issued upon initiation of formal withdrawal procedures shall be as follows:
   1. 0 through 12th week inclusive—"W" grade only.*
   2. Conclusion of 12th week up to but not including completion of all instruction and evaluative procedures of the course—A, B, C, D, F, or "W".*
   3. Upon completion of all instruction and evaluative procedures of the course, no withdrawal may be initiated by either the student or instructor and only an academic grade, i.e., A, B, C, D, or F may be assigned.**

b. Grades issued upon initiation of informal withdrawal procedure (student simply disappears) shall be as follows:
   1. Any time during the semester—"NC" grade only.*
      (Note "NC" grade = unofficial withdrawal, excessive absences, debarment—no academic penalty.)

Restrictions on "W" and "NC" Grades
Students may receive up to but not including 16 credits or credit weights of "W" or "NC" grades combined or alone during their academic career at BCC.

a. Matriculated students who exceed this maximum shall be reclassified as non-matriculated (regardless of their cumulative indices).***

b. Non-matriculated and non-degree students who exceed this maximum shall not be permitted to register.***

Repealer Clause—All Committee on Academic Standing regulations inconsistent with the specific procedures outlined in this motion are hereby made consistent or are repealed, wherever is more applicable.

AUD — Audit
P — Passing

*Appeal to the CAS may be made by the student during this interval.

The CAS may not adjudicate all questions involving:
1. Non academic, i.e., administrative evaluations not during this period ("NC" or "W" grades).
2. Resolution of grades from an academic to an academic grade.
   Example: A, B, C, D, F resolved to "NC" or "W" upon appeal.

The CAS is empowered to adjudicate the following under this clause:
3. Appeals for change of an academic grade to another academic grade.
4. Appeals for change of another academic grade to an academic grade.

Appeals to the CAS for items 3 and 4 above will be referred to the appropriate department for ad hoc committee adjudication.

**Appeal to the CAS may be made by the student during this interval. The CAS shall direct the appeal to the appropriate department for ad hoc committee adjudication.

***Exceptions to this regulation may be made upon appeal to the CAS or its delegated authority. It is recognized that exceptional circumstances may mitigate against the strict application of this regulation from time to time and the CAS or its delegated authority is empowered to act to waive or extend the limitations incorporated within this article.
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>ABS</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 INC. Equivalent to F if unresolved. (Refer to Regulations below.)</td>
</tr>
<tr>
<td>INC</td>
<td>Work in course incomplete, but otherwise passing in course. May not be assigned to student absent from final examination. May resolve to A, B, C, D, or F. Equivalent to F if unresolved. (Refer to Regulations below.)</td>
</tr>
</tbody>
</table>

1. Registration in Subsequent Level Courses
A student with the grade of ABS or INC 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. See Special Fees, page 35.

Students assigned the grade of ABS whose application for make-up examination is approved, are also so notified. Students who miss the scheduled make-up examination, or who cannot apply for such examination prior to the scheduled date for such make-up examinations, must apply in writing through the Registrar to the Head of Department in which the course is given for a special examination. If the Head of Department does not grant permission for such examination, he should advise the CAS. The denial of an application for examination should be communicated by the Head of the Department to the CAS.
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—on 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.)

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.

Cumulative Dean's List: A matriculated student who has taken at least 24 cumulative degree credits and has achieved a cumulative 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 grade folders and communicate with the Office of the Dean of Students regarding excessive absence 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 NC. Debarment is discretionary with the instructor.

Guideline for 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 block of hours, absence from one such session incurs a warning notice. Absence from two such sessions is the maximum permitted for the term. Absence from three such sessions constitutes grounds for debarment from the course.

LEAVES OF ABSENCE

Students who find it necessary to withdraw from the College for a semester or longer should apply for an official leave of absence through 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 39.

Maternity Leave
A student who becomes pregnant must immediately notify her counselor and the special counselor in the Department of Student Development. A statement from the student’s physician will be required, and then appropriate arrangements will be 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 Development.
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 withdraw may solve their problem and make it feasible to remain in college. In any event, a formal withdrawal will protect a student’s record.

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

Electrical and Mechanical Technology students who plan to continue their studies may transfer directly to The City College or to certain other four-year colleges offering the degree in Engineering Technology and will receive full transfer credit for technology courses taken at Bronx Community College.

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.

CAMPUS BEHAVIOR CODE

The sale and usage of drugs, including marijuana, is illegal by New York State Law. Bronx Community College campus regulations prohibit the sale and usage of alcoholic beverages on campus. Gambling is illegal according to New York State Laws.

In the interest of promoting student and faculty welfare at the College and the safety and security of our entire College Community, the Discipline Procedure outlined herein has been recommended by the Student Government and approved by the President. Each student is urged to study it carefully.

Any student violating any code of behavior (including the use of drugs, marijuana and alcohol) established by the college, and by the city, state or federal government shall be subject to:

(A) An inquiry by a student and faculty member of the Student-Faculty Disciplinary Committee, as set up in line with the requirements of the by-laws of the Board of Higher Education, immediately following such an incident to assess whether or not immediate temporary suspension shall be effectuated by the President until a hearing is scheduled.

(B) A hearing before the Student-Faculty Disciplinary Committee on the sixth school day after the precipitating incident, as specifically outlined in Article 15 of the by-laws of the Board of Higher Education.

(C) Immediate and permanent suspension should the student involved not appear at the hearing, and at the same time not offer a reasonable excuse, this suspension to apply to all units of the City University. All students involved must be advised by the Committee of the various levels of appeal available to them under the by-laws.

Any visitor at the College not on official business will be considered a trespasser and will be dealt with as such.

Any student who does not show his or her ID card upon a legitimate request, will be considered a trespasser.
STUDENT DEVELOPMENT DEPARTMENT

Chairman: Dr. Vera F. Minkin
Professor: C. Saueracker
Associate Professor: H. Rosenfeld


Lecturers: J. Asch, C. Bryan, G. Calderon, R. Charap, E. Knowles, K. Little, J. Prince, M. Rodriguez, M. Sanchez, B. Staff

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, and emotional development. Meaningful relationships between students and their counselors enable students to develop their potential, frequently helping them to formulate realistic goals and to discover their own personal worth and ability.
ORIENTATION WORKSHOP – SPD-99

A six-session seminar offered by the Department of Student Development is required of entering freshmen. This seminar deals with issues and concerns of students regarding their role in the college community. It presents an overview of the structure of Bronx Community College, academic rules and regulations, career and vocational choices facing the college student and student activities. Topics covered include change of program, matriculation and loss of matriculation curriculum requirements, tutoring and other special services, course drop, grading system, financial aid, transfer policies, withdrawal procedures and early registration.

Students register for SPD-99 according to their curriculum. These seminars will be conducted by the student's assigned counselor.

The Student Handbook and the Service Directory, issued each year by the Department of Student Development in conjunction with student leaders, answer many questions concerning college policies, student activities, and the many resources and services available.

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.

Educational advisement is offered especially during early registration and registration periods, but students are encouraged to take advantage of the specialized knowledge of counselors any time during the year. Counselors are also sources of vocational information for students.

The Student Development counselor is concerned with the specific needs of each individual student. Areas of focus for counseling sessions may typically include aptitude and interest assessment and exploration, personal and educational adjustment, motivational factors influencing educational performance, and the vocational decision-making process.
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 Psychological Services.

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

Coordinator: Prof. Theodore Awerman

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 matriculated and non-matriculated students. Positions available are both part-time and full-time.

The office conducts on-campus recruitment for graduates of career programs.
FINANCIAL AID

Coordinator: Ms. Susan Armiger

Many forms of student financial assistance are available to students at Bronx Community College.

Application
The amount of assistance a student receives (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, financial aid applicants may be required to have an interview with a Financial Aid counselor.

Awards are made for one academic year, and may be renewed upon application. Renewals are based on continuation of scholastic achievement and financial need.

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

Loans
Loans are available under the New York State Higher Education Assistance Corporation, the National Defense Education Act, and the Federal Nursing Loan Program. Applications for New York State Loans must be processed through the Financial Aid Office. National Defense Loans and Nursing Loans are administered solely through the College from funds made available by the Federal Government and the College. 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 financial 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.

Grants
Educational Opportunity Grants are available to full-time (at least 12 credits) students whose need is such that they could not otherwise attend school. These grants must be matched by some other form of aid, such as a job or a loan.

Federal Nursing Grants are available to nursing students.

Scholarships
A limited number of Bronx Community College Scholarships are awarded annually. These scholarships are made possible through the generosity of private individuals and organizations including H. W. Wilson Foundation, The Lincoln Fund (for nursing students only) and the Bronx Rotary Foundation.

The following special scholarships are awarded at commencement:

The Alexander’s Department Store Award
The Sayer Award in English
Edith Rosenfeld Memorial Scholarship
Gittel Silverman Memorial Scholarship
Dr. Israel Gottesman Award (in Bio-Medical Technology)

Additional information and applications may be obtained from the Financial Aid Office.
SPECIAL PROGRAMS

College Discovery Program
Director: Mr. Eddie Knowles

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. Students now apply directly to City University Special College Programs and must meet financial need criteria. Students who have previously attended college are not eligible to enter the College Discovery Program.

College Discovery students, where their needs indicate, receive free books, pay no registration fees, and may be eligible to receive a stipend which is intended to cover their basic needs so that they are able to attend college. Intensive counseling, social work, tutoring, and other support services 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.

Study Abroad
Coordinator: Prof. Ruth Rackman

The program of Study Abroad serves all colleges of the City University. Undergraduate year programs in France, Germany, Great Britain, Israel, Italy, Mexico, Puerto Rico, and Spain are open to qualified students of the level of sophomore and above, who meet the requirements of the individual programs and who, at the time of their participation, are fully matriculated within a branch of the City University. Undergraduate students may earn up to 32 credits during their year abroad. A limited number of study programs for the summer are also offered.

Further information and application forms may be obtained from the Bronx Community College counselor for the Study Abroad Program.

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 Student-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 Development Department, designated by the Dean of Students, acts as Coordinator of Student Activities and adviser to the Student Councils.

Student Government
The governing groups of the Student Association are the elected Day, Evening and Nursing Center Student Councils. Each Student Council plans and executes the kind of program best suited to the needs of its constituents, working cooperatively for total student welfare through the Student Government Executive Board.

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.

Innovation Center
The Innovation Center was established in the Fall of 1970 to conceive, develop, and implement special and/or innovative programs or projects of benefit to the entire college community.

Open meetings are generally held once a month during the school year. A steering committee composed of equal student and faculty representatives reviews recommendations for appropriate action.

BCC Child Development Center
The Bronx Community College Child Development Center was opened officially in October, 1972, as a service offered to matriculant students of Bronx Community College who are carrying a minimum of 12 credits and meet the financial eligibility requirements established by the Agency for Child Development of the City of New York.

The publicly-funded BCC Child Development Center, professionally staffed, attempts to provide the climate for youngsters to develop in all areas at individual rates of growth.

Policy for the Child Development Center is established by a Board of Directors made up of parents whose children are enrolled in the center, representatives of student government, and members of the faculty and administration.
Clubs and Organizations
Accounting Club
Art Club
BCC Athletic Association
Biology Club
Black Students Union
Chemistry Club
Chinese Club
Data Processing Club
Film Workshop
Forensic Society
Folk Music Club
History Club (CLIO)
IEEE (Institute of Electrical and Electronic Engineers)
International Club
Jewish Students Coalition
Karate Club
Marketing Club
Math Club
Modern Language Clubs (French, German, Italian, Spanish)
Muckrakers Club
Olympus Society
Physical Education Majors Club
Physics Club
Pre-Law Club
Puerto Rican Students Union
Readers’ Workshop
SME (Society of Manufacturing Engineers)
Secretarial Club
Seekers
Shutter Bugs
Ski Club
Tau Alpha Pi
Theatre, Cinema & Ballet Club
Theatre Workshop
West Indian Student Association
Women’s Center

House Plan
Chi Alpha Pi (Nursing Students Only)

Student Publications
BARLD (Business Clubs Magazine)
Communicator (Newspaper)
Day Student Newsletter
Evening Reporter
Senior Yearbook
Through the Looking Glass (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

Coordinator: Prof. Frank Wong
Coordinator of Women's Athletics: Ms. Michele Stern
Coordinator of Intramurals: Mr. Earl Duval

The Athletic Program at Bronx Community College 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 and the Metropolitan Community College Athletic Conference.

Intercollegiate Athletics
Men's Baseball Team
Men's Basketball Team
Men's Cross Country Team
Men's Soccer Team
Men's Track and Field
Men's Wrestling Team
Women's Basketball Team
Women's Softball Team
Women's Tennis Team
Women's Volleyball Team
Cheerleaders

Intramurals
Basketball, volleyball, wrestling, swimming, paddle ball, soccer, 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 students:
Martial Arts Club
Modern Dance Club
Bowling Club
Synchronized Swimming Club
the curricula and programs

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 Lehman 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 60-67.

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) Marketing Management and Sales, 3) Data Processing with a specialization in Computer Programming and Systems Analysis.

Upon satisfactory completion of his work at Bronx Community College, the student may seek immediate employment in the field of his choice. A career program graduate will be accepted directly as a matriculated student in related professional programs of senior unit of City University. 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 intracurriculum 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 are 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

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

<table>
<thead>
<tr>
<th>Dept. &amp; 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>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
</tr>
<tr>
<td>MTH 11</td>
<td>11th Year Math I</td>
<td>3-4</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>TAR or MUS</td>
<td>Art or Music</td>
<td>1</td>
</tr>
<tr>
<td>TSCI</td>
<td>Science</td>
<td>3-4</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose two)</td>
<td>2</td>
</tr>
<tr>
<td>ECO 11</td>
<td>Economics</td>
<td>3</td>
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<tr>
<td>§</td>
<td>Electives</td>
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Total 27-29

#### Required Areas of Study

<table>
<thead>
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<th>Credit</th>
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<tbody>
<tr>
<td>Business Mathematics</td>
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<tr>
<td>Business Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>Intro. Data Processing</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>Business Law</td>
<td>3</td>
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<td>Marketing</td>
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Total 18

#### Specialization Requirements

<table>
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<th>Credit</th>
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<tbody>
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<td>4</td>
</tr>
<tr>
<td>Fundamental Accounting II</td>
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</tr>
<tr>
<td>Intermediate Accounting</td>
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<tr>
<td>Cost Accounting</td>
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Total 16

#### Work Experience

<table>
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<th>Credit</th>
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<tbody>
<tr>
<td>Cooperative Work Exp. or</td>
<td>4</td>
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<tr>
<td>Basic Computer Programming</td>
<td>4</td>
</tr>
<tr>
<td>Consumer Problems and</td>
<td>3</td>
</tr>
<tr>
<td>Personal Finance</td>
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</tr>
</tbody>
</table>

Total 3-4

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### Business Career Curriculum — Marketing Management and Sales 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 marketing 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 Marketing Management and Sales Specialization

67-68 Credits required for A.A.S. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENG 13</td>
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<tr>
<td>PEA 11-81</td>
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<tr>
<td>MTH 11</td>
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<tr>
<td>HIS 11 or 12</td>
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<td>MKT 11</td>
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<td>MKT 13</td>
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Total 17

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<td>PEA 11-81</td>
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<td>MTH 11</td>
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<tr>
<td>ACC 11</td>
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<tr>
<td>MKT 14</td>
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Total 17

<table>
<thead>
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<th>Third Semester</th>
<th>Credit</th>
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<tbody>
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<td>ECO 11</td>
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<tr>
<td>MKT 33</td>
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<tr>
<td>MKT 43</td>
<td></td>
</tr>
<tr>
<td>LAW 41</td>
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<tr>
<td>Marketing Elective</td>
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<tr>
<td><strong>CWE 31</strong></td>
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<td>Elective</td>
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Total 17-18

<table>
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<tr>
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<tbody>
<tr>
<td>MKT</td>
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<td>LAW 41</td>
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<tr>
<td><strong>CWE 32</strong></td>
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<tr>
<td>Retail Merchandising</td>
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</tbody>
</table>

Total 16

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* Six credits may be selected from Art, Communications, English, History, Modern Languages, Music, or Social Sciences.

** CWE 31, and CWE 32 are not required of full-time evening students. They may substitute DAT 30 or one Marketing Elective.

*** It is recommended that students planning to transfer to a four-year CUNY college, take ART 11 or MUS 11, and one science course selected from BIO 11, CHM 11, or PHY 11.

§ Students must select six credits from MKT 18, MKT 41, MKT 70, MKT 71, each three credits.
Business Career Curriculum – Travel and Tourism Management Concentration

Travel and tourism is America's fastest growing industry. Our world may be getting smaller but the travel and tourism industry is growing bigger every day. Moving people from place to place for business or pleasure—by plane, train, ship, bus or camel—requires men and women with the knowledge and skills to meet the needs of millions.

Curriculum Pattern for Concentration in Travel and Tourism Management
65-68 Credits required for A.A.S. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Education (choose one)</td>
<td>1</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civilization</td>
<td>3</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MKT 11</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 71</td>
<td>Tourism</td>
<td>3</td>
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<table>
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<tr>
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<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
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<tr>
<td>PEA 11-81</td>
<td>Physical Education (choose one)</td>
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</tr>
<tr>
<td>MTH 11</td>
<td>11th Year Math I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>MKT 72</td>
<td>Regulatory Agencies &amp; Types of Carriers</td>
<td>3</td>
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<td><strong>Total</strong></td>
<td><strong>17-18</strong></td>
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<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ECO 11</td>
<td>Economics</td>
<td>3</td>
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<tr>
<td>CWE 31</td>
<td>Cooperative Work Experience I</td>
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</tr>
<tr>
<td>MKT 73</td>
<td>Wholesale Tour Operation</td>
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<tr>
<th>Fourth Semester</th>
<th>Course Title</th>
<th>Credit</th>
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<td>LAW 41</td>
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<td>3</td>
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<tr>
<td>CWE 32</td>
<td>Cooperative Work Experience II</td>
<td>2</td>
</tr>
<tr>
<td>ART 10 or MUS 10</td>
<td>Introduction to Art or Music</td>
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</tr>
<tr>
<td>MKT 74</td>
<td>Retail Travel Agency Operation</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
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</table>

NOTE: Students exempted from courses will arrange for course substitution through the Chairman of the Department of Business and Commerce.

* 6 credits to be taken from Art, English, History, Modern Languages, Music, Psychology.
* Students select 6 credits from MKT 70, MKT 18, MKT 41, each 3 credits.
** Any one-credit Art or Music course for which the student qualifies.
** Students may select from BIO 11, BIO 18, CHM 11, PHY 11, SCI 11 or any other 3 or 4 credit science course.
§ It is recommended that students planning to transfer to a 4-year CUNY college, take ART 11 or MUS 11.

BUSINESS ADMINISTRATION CURRICULUM
(Transfer to Baruch, Lehman, Hunter or Brooklyn Colleges)

The Business Administration program is designed to provide an introduction to Accounting, Management or Marketing Management and Sales as part of a foundation for continuing for a baccalaureate degree at Baruch, Lehman, Hunter or Brooklyn Colleges of the City University of New York to which he may transfer automatically upon graduation from Bronx Community College. 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 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.
Business Career Curriculum—Travel and Tourism Management Concentration

Travel and tourism is America’s fastest growing industry. Our world may be getting smaller but the travel and tourism industry is growing bigger every day. Moving people from place to place for business or pleasure—by plane, train, ship, bus or camel—requires men and women with the knowledge and skills to meet the needs of millions.

Curriculum Pattern for Concentration in Travel and Tourism Management 65-68 Credits required for A.A.S. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Dept &amp; 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>PEA 11-81</td>
<td>Physical Education (choose one)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civilization</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
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<td></td>
</tr>
<tr>
<td>MKT 11</td>
<td>Marketing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MKT 71</td>
<td>Tourism</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>16</strong></td>
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<table>
<thead>
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<th>Course Title</th>
<th>Credit</th>
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<tbody>
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<td>CMS 11</td>
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</tr>
<tr>
<td>MTH 11</td>
<td>11th Year Math I</td>
<td>3</td>
<td></td>
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<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
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<td>MKT 72</td>
<td>Regulatory Agencies &amp; Types of Carriers</td>
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<td><strong>17-18</strong></td>
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<th>Dept &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ECO 11</td>
<td>Economics</td>
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<tr>
<td>CWE 31</td>
<td>Cooperative Work Experience I</td>
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<td>MKT 73</td>
<td>Wholesale Tour Operation</td>
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<td><strong>SCI</strong></td>
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<tr>
<th>Fourth Semester</th>
<th>Dept &amp; No.</th>
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<tbody>
<tr>
<td>LAW 41</td>
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<td>Cooperative Work Experience II</td>
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<td>Introduction to Art or Music</td>
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<td>Retail Travel Agency Operation</td>
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<td></td>
<td><strong>15</strong></td>
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</tbody>
</table>

NOTE: Students are exempted from courses will arrange for course substitution through the Chairman of the Department of Business and Commerce.

* 6 credits to be taken from Art, English, History, Modern Languages, Music, Psychology.

† Any one-credit Art or Music course for which the student qualifies.

§ Students select 6 credits from MKT 70, MKT 41, each 3 credits.

** Students may select from BIO 11, BUS 18, CHM 11, PHY 11, SCI 11 or any other 3 or 4 credit science course.

§§ It is recommended that students planning to transfer to a 4-year CUNY college, take ART 11 or MUS 11.
Business Administration – Marketing Management and Sales

For those students who wish to prepare for a career in marketing management and sales, 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.

Curriculum Pattern for the Marketing Management and Sales Option (Transfer to Baruch College)

68-70 Credits required for A.A. Degree

First Semester

<table>
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<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>*</td>
<td>Modern Language</td>
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</tr>
<tr>
<td>**MTH 30 or MTH 31</td>
<td>Pre-Calculus or Analytic Geometry and Calculus</td>
<td>4</td>
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<tr>
<td>MKT 11</td>
<td>Marketing</td>
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Second Semester

<table>
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<td>§</td>
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<td>Modern Language</td>
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<td>ACC 11</td>
<td>Fundamental Accounting I</td>
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</tr>
<tr>
<td>MKT 41</td>
<td>Retail Operations</td>
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<tr>
<td></td>
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Third Semester

<table>
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<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
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</tr>
<tr>
<td>ECO 11</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>†</td>
<td>Science</td>
<td>4</td>
</tr>
<tr>
<td>BUS 41</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MKT 33</td>
<td>Buying Techniques</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total 16</strong></td>
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</tr>
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</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS or ART</td>
<td>Music or Art</td>
<td>1-3</td>
</tr>
<tr>
<td>CMS 21</td>
<td>Voice &amp; Diction</td>
<td>2</td>
</tr>
<tr>
<td>§</td>
<td>Social Science</td>
<td>3</td>
</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>MKT 35</td>
<td>Retail Merchandising</td>
<td>4</td>
</tr>
<tr>
<td>DAT 30</td>
<td>Introduction to Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total 16-18</strong></td>
<td></td>
</tr>
</tbody>
</table>

* See language requirements, p. 134.
** 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. Baruch College requires only MTH 21.
§ Choose from Philosophy (PHL 11), Political Science (POL 11), Psychology (PSY 11), or Sociology (SOC 11).
† A student may choose one semester of Biology (BIO 11), Chemistry (CHM 11), or Physics (PHY 11).

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

*(Transfer to Baruch 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 Baruch College; 2) for students planning to teach Marketing Management and Sales 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.

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

**66-68 Credits required for A.A. Degree**

#### First Semester

<table>
<thead>
<tr>
<th>Dept. &amp; 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>PEA 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>HIS 11 or 12</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td><strong>MTH 30</strong></td>
<td>Pre-Calculus</td>
<td>4</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
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<td><strong>Total 18</strong></td>
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#### Second Semester

<table>
<thead>
<tr>
<th>Dept. &amp; 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>PEA 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 I</td>
<td>4</td>
</tr>
<tr>
<td>MKT 11</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td></td>
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</table>

#### Third Semester

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
</tr>
<tr>
<td>ECO 11</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 II</td>
<td>4</td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization and</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td></td>
</tr>
<tr>
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</table>

#### Fourth Semester

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS or ART</td>
<td>Music or Art</td>
<td>1-3</td>
</tr>
<tr>
<td>§</td>
<td>Social Science</td>
<td>3</td>
</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>CMS 21</td>
<td>Voice and Diction</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total 13-15</strong></td>
<td></td>
</tr>
</tbody>
</table>

*See language requirements for transfer to Baruch College, p. 134.*

*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. Baruch College requires only MTH 21. *A student may choose one semester of Biology (BIO 11), Chemistry (CHM 11), or Physics (PHY 11).*

§Choose from History or Philosophy (PHL 11), Political Science (POL 11), Psychology (PSY 11), or Sociology (SOC 11).*

**2. Curriculum Pattern for H.S. Teaching Option: Marketing Management and Sales *(Transfer to Baruch College)*

**66-68 Credits required for A.A. Degree**

#### First Semester

<table>
<thead>
<tr>
<th>Dept. &amp; 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>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>*</td>
<td>Modern Language</td>
<td>4</td>
</tr>
<tr>
<td><strong>MTH 30</strong></td>
<td>Pre-Calculus</td>
<td>4</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
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#### Second Semester

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ECO 11</td>
<td>Economics</td>
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<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
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<tr>
<td>MKT 33</td>
<td>Buying Techniques</td>
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<td>MKT 13</td>
<td>Textiles</td>
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#### Third Semester

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>MUS or ART</td>
<td>Music or Art</td>
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<td>Social Science</td>
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<td>LAW 41</td>
<td>Business Law</td>
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<td>MKT 35</td>
<td>Retail Merchandising</td>
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<tr>
<td></td>
<td><strong>Total 13-15</strong></td>
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</tr>
</tbody>
</table>

*See language requirements for transfer to Baruch College, p. 134.*

*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. Baruch College requires only MTH 21.*

§Choose from History or Philosophy (PHL 11), Political Science (POL 11), Psychology (PSY 11), or Sociology (SOC 11).*

¢Choose from Political Science, Psychology, or Sociology.
BUSINESS TEACHING CURRICULUM

(Transfer to Hunter College)

This Business Teaching program is for students planning to teach Bookkeeping and Accounting at the secondary level and who plan to transfer to Hunter College. The program leads to the A.A. degree. Upon successful completion of this program, a student may transfer to the third year at Hunter College.

Curriculum Pattern for the H.S. Teaching Option: Bookkeeping and Accounting (Transfer to Hunter College)

71-74 Credits required for A.A. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
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<td>PEA 11-81</td>
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<td>* ACC 11</td>
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<table>
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<tbody>
<tr>
<td>ENG 14</td>
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</tr>
<tr>
<td>* MTH 21</td>
<td>3-4</td>
</tr>
<tr>
<td>* ACC 12</td>
<td>4</td>
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<td>17-18</td>
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<table>
<thead>
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<tbody>
<tr>
<td>†CMS 11</td>
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<td>PEA 11-81</td>
</tr>
<tr>
<td>$§ ACC 13</td>
</tr>
<tr>
<td>$§ BUS 51</td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLT 91</td>
</tr>
<tr>
<td>ECO 11</td>
</tr>
<tr>
<td>†§ LAW 41</td>
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<tr>
<td>†§ FIN 31</td>
</tr>
<tr>
<td>**ORI 41</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

* See language requirements for transfer, p. 134.
† Students who have had Advanced Algebra in high school should substitute MTH 31, Analytic Geometry and Calculus.
‡ Remedial Speech, CMS 01, may also be required as determined by the Department of Communication Arts and Sciences, in order to meet the standards required for passing the Qualifying Examination in Speech for prospective teachers.
§ A student must choose a two-semester sequence in one of the sciences of Biology, Chemistry or Physics.
** Not required for full-time Evening Session students with approval of curriculum adviser.

†† Elective substitutions for exemptions based upon placement examinations: Maximum 13 credits:
| Modern Language | 3-4 |
| Comp. & Drama   | 3   |
| Comp. & Poetry  | 3   |
| Public & Group Comm. | 2 |
| Psychology      | 3   |
| Introduction to Philosophy | 3 |
| Survey of Mathematics | 3 |

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

Students who satisfactorily complete the Data Processing Curriculum and earn the A.A.S. degree may transfer to the third year at Baruch College.

<table>
<thead>
<tr>
<th>Core Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dept. &amp; No.</td>
</tr>
<tr>
<td>ENG 13</td>
</tr>
<tr>
<td>ENG 14, 15, or 16</td>
</tr>
<tr>
<td>CMS 11</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
</tr>
<tr>
<td>*MTH</td>
</tr>
<tr>
<td>ART or MUS (any one-credit course)</td>
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<tr>
<td>Science</td>
</tr>
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</table>

Required areas of study

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>ACC 11, 12, 14</td>
</tr>
<tr>
<td>BUS 11</td>
</tr>
<tr>
<td>BUS 41</td>
</tr>
<tr>
<td>BUS 51</td>
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Specialization Requirements

<table>
<thead>
<tr>
<th>Specialization Requirements</th>
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</thead>
<tbody>
<tr>
<td>DAT 30</td>
</tr>
<tr>
<td>DAT 31</td>
</tr>
<tr>
<td>DAT 40</td>
</tr>
<tr>
<td>DAT 41</td>
</tr>
<tr>
<td>DAT 42 or</td>
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Work Experience**

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>CWE 31 &amp; 32 or MKT 11 or FIN 31</td>
</tr>
</tbody>
</table>

** Full time evening students may enroll in the Work Experience courses. Ordinarily, these students, with the permission of their curriculum adviser, will substitute 3 credits of Marketing or Finance for Work Experience I and II.

** Two credits may be selected from Health or Physical Education. However, students planning to transfer to Baruch College will be required to demonstrate their ability to swim and should meet this requirement by enrolling in PEA 21 and/or any PEA courses 11-81.

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* Entering students offering:
A. one or two years of mathematics will take MTH 11, 21.
B. two and a half years of mathematics will take MTH 16, 21.
C. three years of mathematics will take MTH 17, 21.
D. three and a half or four years of mathematics will take MTH 21, 22.

† One course to be selected from BIO 11 or 18, CHM 11, PHY 11, SCI 11 or 12.

§ One course to be selected from BIO 11 or 18, CHM 11, PHY 11, SCI 11 or 12.
CHEMICAL TECHNOLOGY

Curriculum Coordinator: Dr. C. Polowczyk

The program in Chemical Technology is designed to give the student a foundation in the theoretical and practical concepts of chemistry. Students have, in advanced laboratory courses, an opportunity to become acquainted with current practices and techniques of industrial and environmental methods of analysis and to use modern industrial equipment. Knowledge of actual manufacturing and air and water monitoring practices is obtained through visits to industrial plants. This program is transferable to four-year CUNY colleges.

The curriculum in Chemical Technology offers two additional areas of specialization leading to the A.A.S. degree: Pre-Pharmacy Option, leading to the third year of a College of Pharmacy, and the Plastics Technology Option.

Students interested in careers as chemists or chemical engineers should take the Liberal Arts and Sciences or the Engineering Science program.

Curriculum Pattern for Chemical Technology

<table>
<thead>
<tr>
<th>64-67 Credits required for A.A.S. Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
</tr>
<tr>
<td>Dept. &amp; No.</td>
</tr>
<tr>
<td>ENG 13</td>
</tr>
<tr>
<td>HLT 91</td>
</tr>
<tr>
<td>CMS 11</td>
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<tr>
<td>PEA 11-81</td>
</tr>
<tr>
<td>CHM 11 or CHM 17</td>
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<tr>
<td>MTH 11</td>
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<td><strong>Total 16</strong></td>
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<tr>
<td><strong>Second Semester</strong></td>
</tr>
<tr>
<td>CHM 22 or CHM 27</td>
</tr>
<tr>
<td>CHM 18</td>
</tr>
<tr>
<td>MTH 16</td>
</tr>
<tr>
<td>PHY 21</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
</tr>
<tr>
<td><strong>Total 16</strong></td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
</tr>
<tr>
<td>ART or MUS</td>
</tr>
<tr>
<td>CHM 31</td>
</tr>
<tr>
<td>CHM 33</td>
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<tr>
<td>HIS 11 or 12</td>
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<td><strong>Total 15</strong></td>
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<td><strong>Fourth Semester</strong></td>
</tr>
<tr>
<td>CHM 32</td>
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<tr>
<td>CHM 43</td>
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<tr>
<td>CHM 45</td>
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<td>CHM 44</td>
</tr>
<tr>
<td>CHM 46</td>
</tr>
<tr>
<td><strong>Total 16</strong></td>
</tr>
</tbody>
</table>

The Pre-Pharmacy curriculum 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 and Brooklyn College.* 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.

* Students expecting to transfer to a senior college of CUNY University should consult their curriculum advisers.
Curriculum Pattern for Pre-Pharmacy
64-67 Credits required for A.A.S. Degree

First Semester

<table>
<thead>
<tr>
<th>Dept. &amp; 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>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td>BIO 11</td>
<td>General Biology I</td>
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<tr>
<td>CHM 11</td>
<td>College Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>MTH 17</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Second Semester

| BIO 12      | General Biology 2         | 4      |
| CHM 22      | General Chemistry and     | 5      |
|             | Qualitative Analysis      |        |
| MTH 18      | Mathematical Analysis     | 3      |
| CMS 11      | Fundamental Communications| 3      |
| HLT 91      | Critical Health Issues    | 2      |
| **Total**   |                           | **17** |

Third Semester

| MUS or ART | Music or Art              | 2-3    |
| HIS 11 or 12| History of Western Civ.   | 3      |
| CHM 31      | Organic Chemistry I       | 4      |
| CHM 32      | Quantitative Analysis     | 4      |
| PHY 11      | College Physics I         | 4      |
| **Total**   |                           | **17-18** |

Fourth Semester

| CHM 32 or MUS 11 or 12 | Humanities Elective      | 3-4    |
| CHM 12            | College Chemistry II     | 4      |
| PHY 12            | College Physics II       | 4      |
|                   | Free Elective            | 2-3    |
|                   | History or Social Science Elective | 3 |
| **Total**         |                           | **16-18** |

*May be chosen from English, Communications or Modern Languages.

The Plastics Technology curriculum covers the theory and skills of all phases of plastics 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.

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Curriculum Pattern for Plastics Technology
64-66 Credits required for A.A.S. Degree

First Semester

<table>
<thead>
<tr>
<th>Dept. &amp; 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>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
</tr>
<tr>
<td>CHM 15</td>
<td>Modern Chemistry</td>
<td>3</td>
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<tr>
<td>MEC 11</td>
<td>Engineering Graphics</td>
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<tr>
<td>PLS 11</td>
<td>Fundamentals of Plastics</td>
<td>4</td>
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<tr>
<td>ART or MUS</td>
<td>Art or Music</td>
<td>1-3</td>
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<tr>
<td>MTH 11</td>
<td>11th Year Mathematics I</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15-17</strong></td>
</tr>
</tbody>
</table>

Second Semester

| HLT 91      | Critical Health Issues    | 2      |
| CHM 24      | Plastics Chemistry        | 4      |
| MEC 21      | Engineering Mfg. Processes| 2      |
| PLS 12      | Materials Compounding and Instrumentation | 3 |
| MTH 16      | 11th Year Mathematics II  | 3      |
| CMS 11      | Fundamental Communications| 3      |
| **Total**   |                           | **17** |

Third Semester

| HIS 11 or 12| History of Western Civ.   | 3      |
| PHY 24      | Technical Physics         | 4      |
| PLS 31      | Plastics Processing I     | 3      |
| PLS 35      | Materials Engineering     | 2      |
| PLS 37      | Extrusion Technology      | 3      |
|              | Free Elective             | 0-3    |
| **Total**   |                           | **15-18** |

Fourth Semester

| BUS 51      | Business Organization and Management | 3  |
| PLS 32      | Plastics Processing II           | 3  |
| PLS 36      | Plastics Products Design         | 2  |
| PLS 38      | Fabrication                      | 3  |
| PLS 41      | Materials Testing Laboratory     | 3  |
|              | Elective                        | 3  |
| **Total**   |                                 | **17** |

*Choose from History or Social Sciences.
EDUCATION—CHILD CARE ASSOCIATE

Curriculum Coordinator: Dr. J. L. Rempson

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 transferable to a four-year baccalaureate program. In 1973, a Child Care Associate Option was added, leading also to a degree in early childhood and elementary education, but with the inclusion of a child care specialization.

The Education-Child Care Associate program, conducted in the late afternoons and evenings, is open to all students. It allows designated assistant teachers employed by the Board of Education of the City of New York and day care facilities to participate in a two-year transfer program which meets license requirements for the position of associate teacher.

Curriculum Pattern for Education-Child Care Associate
(The first two years of the Early Childhood or Elementary Education Sequence)
64-65 Credits required for the A.A.S. Degree

Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
</tr>
<tr>
<td>MTH 21</td>
<td>Survey of Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Required Areas of Study

Natural Science—One laboratory science course (Biology or Chemistry or Physics)

Humanities A—To be chosen from English, Communications, or Modern Languages (at least one course in English)

Humanities B—Music or Art (any course or courses for which student qualifies)

History and Social Sciences—One course in History, two courses in Social Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
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</tbody>
</table>

Specialization Requirements for Education Associate

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 13 &amp; 14</td>
<td>Behavioral Sciences Foundation of Education Workshop I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>EDU 15</td>
<td>Reading &amp; Language Arts for Early Childhood &amp; Elementary Years</td>
<td>3</td>
</tr>
<tr>
<td>One of the following Education Electives</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>EDU 12</td>
<td>Contemporary Urban Education</td>
<td></td>
</tr>
<tr>
<td>EDU 26</td>
<td>School &amp; Community Relations in Urban Schools</td>
<td></td>
</tr>
<tr>
<td>EDU 31</td>
<td>Intro. to Learning Problems</td>
<td></td>
</tr>
<tr>
<td>EDU 40</td>
<td>Cooperative Education Work Experience</td>
<td></td>
</tr>
<tr>
<td>EDU 50</td>
<td>Creative Experiences for Early Childhood &amp; Elementary Years</td>
<td>12</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
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</table>

Specialization Requirements for Child Care Associate

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 13 &amp; 14</td>
<td>Behavioral Sciences Foundation of Education Workshop I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>EDU 24 &amp; 25</td>
<td>Day Care Seminar I &amp; II</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

Free Electives—To complete the required minimum of 64 or maximum of 65 credits

* Twelve educational credits will be accepted towards a major in education at Lehman College. Additional education credits may be considered electives and require consultation with the department.
ENGINEERING SCIENCE
(The first two years of the Engineering sequence)

Curriculum Coordinator: Prof. Phyllis B. Berger

The Engineering Science program is designed for students with a special interest in engineering 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. Transfer is also possible to other engineering schools, both in and out of the New York City area.

The accompanying curriculum pattern, with modifications, prepares the student for continuation in a program leading to a bachelor’s degree in architecture.

Curriculum Pattern for Engineering Science
67-68 Credits required for the A.A. Science

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 10 or MUS 10</td>
<td>Art Appreciation or Music Appreciation</td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. Activity</td>
</tr>
<tr>
<td>*CHM 11</td>
<td>Chemistry I</td>
</tr>
<tr>
<td>PHY 31</td>
<td>Physics I</td>
</tr>
<tr>
<td>MTH 31</td>
<td>Anal. Geometry &amp; Calculus I</td>
</tr>
<tr>
<td>ORI 15</td>
<td>Engrg. Sci. Fr. Orientation</td>
</tr>
<tr>
<td>**</td>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 12</td>
<td>Chemistry II</td>
</tr>
<tr>
<td>MTH 32</td>
<td>Analytic Geometry &amp; Calculus II</td>
</tr>
<tr>
<td>PHY 32</td>
<td>Physics II</td>
</tr>
<tr>
<td>*MEC 11</td>
<td>Engineering Graphics</td>
</tr>
<tr>
<td>**</td>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
</tr>
<tr>
<td>MTH 33</td>
<td>Analytic Geometry &amp; Calculus III</td>
</tr>
<tr>
<td>PHY 33</td>
<td>Engineering Physics III</td>
</tr>
<tr>
<td>MEC 12</td>
<td>Applied Engrg. Graphics</td>
</tr>
<tr>
<td>Free Elective</td>
<td>3-4</td>
</tr>
<tr>
<td>**</td>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>**SOC or HIS</td>
<td>Social Science or History</td>
</tr>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
</tr>
<tr>
<td>MTH 34</td>
<td>Advanced Calculus</td>
</tr>
<tr>
<td>PHY 34</td>
<td>Analytical Mechanics</td>
</tr>
<tr>
<td>PHY 61</td>
<td>Computer Methods for Applied Sciences</td>
</tr>
<tr>
<td>ORI 45</td>
<td>Engrg. Sci. Sr. Orientation</td>
</tr>
<tr>
<td>**</td>
<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.

**Any three credits of Social Sciences or History.

Placement examination will determine if student is to register for MEC 01. Upon achievement of a grade of C or better, two credits will be earned for MEC 11.
ENGINEERING TECHNOLOGIES

Curriculum Coordinator: Prof. Phyllis B. 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. The City College has such a program as do other colleges in the metropolitan area. In addition, there are institutions which accept students with an A.A.S. in Engineering Technology and allow them to pursue the engineering degree.

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.

Students who plan to continue their studies may transfer directly to certain four-year colleges offering the baccalaureate degree in Engineering Technology.
MECHANICAL TECHNOLOGY

Mechanical Engineering Technology covers the design, production, installation, and operation of machines, tools, and all types of 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, as well as with general manufacturing processes and design.

Mechanical engineering technicians are involved in design-drafting, design of production processes, industrial organization, boiler inspection, sales engineering, and other industrial careers.

Students who plan to continue their studies may transfer directly to certain four-year colleges offering the baccalaureate degree in Engineering Technology.

Curriculum Pattern for Mechanical Technology
64-68 Credits required for A.A.S. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dept. &amp; No.</td>
<td>Course Title</td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
</tr>
<tr>
<td>#ART or MUS</td>
<td>Art or Music</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
</tr>
<tr>
<td>MTH 16</td>
<td>11 Year Mathematics II</td>
</tr>
<tr>
<td>PHY 21</td>
<td>Engrg. Tech. Physics I</td>
</tr>
<tr>
<td>†MEC 11</td>
<td>Basic Engineering Graphics</td>
</tr>
<tr>
<td>ORI 14</td>
<td>Tech. College Orientation</td>
</tr>
<tr>
<td></td>
<td>Total 16</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 17</td>
<td>College Algebra</td>
</tr>
<tr>
<td>PHY 22</td>
<td>Engrg. Tech. Physics II</td>
</tr>
<tr>
<td>MEC 12</td>
<td>Applied Engrg. Graphics</td>
</tr>
<tr>
<td>MEC 21</td>
<td>Engrg. Mfg. Processes</td>
</tr>
<tr>
<td>MEC 27</td>
<td>Mech. &amp; Intro. to Strength of Materials</td>
</tr>
<tr>
<td>ELC 15</td>
<td>Electric Circuits</td>
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<tr>
<td></td>
<td>Total 17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 15</td>
<td>Fund. of Modern Chemistry</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>
</tr>
<tr>
<td>ELC 16</td>
<td>Industrial Electronics</td>
</tr>
<tr>
<td></td>
<td>Total 17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
</tr>
<tr>
<td>‡</td>
<td>Social Studies Elective</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Education activity or</td>
</tr>
<tr>
<td>or HLT 91</td>
<td>Critical Health Issues</td>
</tr>
<tr>
<td>MEC 41</td>
<td>Metallurgy</td>
</tr>
<tr>
<td>MEC 45</td>
<td>Mech. Projects Lab.</td>
</tr>
<tr>
<td>MEC 60</td>
<td>Senior Elective</td>
</tr>
<tr>
<td>***</td>
<td>Free Elective</td>
</tr>
<tr>
<td>ORI 44</td>
<td>Tech. Career Orientation</td>
</tr>
<tr>
<td></td>
<td>Total 14-16</td>
</tr>
</tbody>
</table>

*** To complete maximum of 68 credits, students may take courses in any department or discipline. Students transferring to a Bachelor of Technology degree program are advised to take MTH 18 as well as to familiarize themselves with the requirements of the senior college of their choice and to consult the curriculum coordinator.

‡ Choose from Humanities, History or Social Sciences.

Placement examination will determine if student is to register for MEC 01. Upon achievement of a grade of C or better, two credits will be earned for MEC 11.

#Any one-credit art or music course for which the student qualifies.
LIBERAL ARTS AND SCIENCES

Curriculum Coordinator: Dr. C. Monticone

The Liberal Arts and Sciences curriculum prepares a student to be a productive and creative human being. This kind of education can open doors to the professions and to rewarding and responsible careers. Future physicians, teachers, scientists, lawyers, and business men, for example, develop themselves as sensitive individuals, in addition to completing their preprofessional work, through studies in the liberal arts and sciences. The academic experiences in liberal arts and sciences provide the foundation for later specialization, graduate study, and professional school.

There are several paths offered within the Liberal Arts and Sciences curriculum. The general A.A. degree program provides a well-rounded background and the opportunity to explore a variety of subject areas, so that graduates may transfer to the third year of a senior college.

Creative specialization in all disciplines may be pursued within the framework of this general Associate in Arts curriculum by concentrating elective courses in a specific subject area, such as:

Communication Arts and Sciences  
Dance  
Economics  
English  
French  
German  
Health Education

Italian  
Music  
Philosophy  
Physical Education  
Recreation  
Sociology  
Spanish  
Theater

Those who wish to pursue a program which allows a greater degree of specialization in the first two years of college may select one of these options or concentrations:

Associate in Science (A.S. Degree)  
Biology  
Chemistry  
Computer Science  
Mathematics  
Physics

Associate in Arts (A.A. Degree)  
Art  
Black and Puerto Rican Studies  
History  
Political Science  
Psychology

In order to graduate, a student must satisfy either all the requirements of the Associate in Arts general curriculum, or all of the requirements of one of the Associate in Science options or all of the requirements of one of the Associate in Arts options.

Curriculum Pattern for Liberal Arts and Sciences (Transfer)  
164 Credits required for the A.A. Degree

Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td>MTH 21, 23</td>
<td>Mathematics</td>
<td>3-4</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>**</td>
<td>Modern Languages</td>
<td>4-12</td>
</tr>
</tbody>
</table>

Required Areas of Study

Natural Science and Mathematics. To be chosen from Math, Biology, Chemistry, Physics, Science (at least one laboratory science)  
Humanities A — To be chosen from English and/or Communications (at least one course in English)  
Humanities B — To be chosen from Art or Music  
Social Studies. To be chosen from Economics, History, Philosophy, Political Science, Psychology and Sociology  
Physical Education activity course

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  

Total 64

148 credits must be taken in the Humanities, Natural Sciences and Mathematics, and Social Studies.

* See language requirements, p. 134.

Note: Students are advised to consult the requirements of the senior college of their choice.
## Liberal Arts and Sciences Transfer Options

### Curriculum Pattern for Liberal Arts and Sciences (Transfer)

**Art Option**

64-68 Credits required for A.A. Degree

#### First Semester

<table>
<thead>
<tr>
<th>Dept. &amp; 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 or 12</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td>ART 11 or 12</td>
<td>Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 15</td>
<td>Design</td>
<td>2</td>
</tr>
<tr>
<td>ART 21</td>
<td>Drawing &amp; Painting I</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total 15**

#### Second Semester

<table>
<thead>
<tr>
<th>ENG</th>
<th>English Elective</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
</tr>
<tr>
<td><strong>+</strong> Social Studies</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>ART 22</td>
<td>Free Elective</td>
<td>2-3</td>
</tr>
<tr>
<td>ART 51 or ART 52</td>
<td>Art of Africa &amp; America or Oriental Art</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total 17-18**

#### Third Semester

| Modern Language or Elective | 3-4 |
| MTH                        | 3-4 |
| ART 31                    | 2   |
| ART 41                    | 2   |
| ART 55                    | 3   |

**Total 16-19**

#### Fourth Semester

| Modern Language or Elective | 3-4 |
| Social Studies             | 3   |
| MTH                        | 4   |
| ART 32                    | 2   |
| ART 42                    | 2   |
| ART 61                    | 2-0 |

**Total 16-17**

---

*To be chosen from Economics, History, Philosophy, Political Science, Psychology, and Sociology.

**Credit will be given for one semester of repeated high school language, provided degree requirement is met. See Language Requirements for A.A. Degree, p. 134.

***To be chosen from Mathematics, Biology, Chemistry, Physics, Science (at least one course to be a laboratory science).
Required Areas of Study

Natural Science and Mathematics—To be chosen from Math, Biology, Chemistry, or Physics (at least one laboratory science) 7-8

Humanities A—To be chosen from English and/or Communications (at least one course in English) 6

Humanities B—To be chosen from Art or Music 3

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

Physical Education—activity course 1

Total 26-27

Concentration Requirements

*A minimum of 15 credits must be selected from among the following:

PEA 46 African & Puerto Rican Dance
SPN 30, 31 P.R. Literature & Culture
CMS 71 Afro-American & Puerto Rican Spokesmen
HIS 39 History of Puerto Rico & the Caribbean
ENG 53 Black Writers in American Lit.
HIS 35 History of Africa
HIS 37 Afro-American History
ART 12 Intro. to Art with Emphasis on Non-Western Culture
MUS 12 Intro. to Music with Emphasis on Non-Western Culture
ART 51 Art of Africa and the Americas

**Free Electives to complete the required 68

Curriculum Pattern for Liberal Arts and Sciences (Transfer)

History Option

64 Credits required for A.A. Degree

Curriculum Coordinator: Dr. M. D. Hirsch

Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td>MTH 21, 22, 23, 30, or 31</td>
<td>Mathematics</td>
<td>3-4</td>
</tr>
<tr>
<td>† HIS 11 or 12</td>
<td>Modern Languages</td>
<td>0-12</td>
</tr>
</tbody>
</table>

Total 34-37

Required Areas of Study

Mathematics and/or Natural Sciences (at least one laboratory science) 7-8

Humanities A—English and/or Communications (at least one course in English) 6

Humanities B—Art or Music (any course in Art or Music for which the student qualifies) 3

Social Sciences—Chosen from Economics, Political Science, Philosophy, Psychology and Sociology 6

Physical Education 1

Total 23-24

**Specialization Requirements

Free Electives to complete the required 64 1-15

Total 64

*See Liberal Arts and Sciences language requirements, p. 134

**Suggested grouping for special requirements.

I. American History—HIS 21, 22, 23, 24, 37, 50, 51

II. Area Studies—HIS 25, 27, 31, 39, 36, 39

III. General—HIS 11, 12 (these courses will be counted only if not taken to meet Core Requirements), 14, 15, 16, 34, 40, 50.
Curriculum Pattern for Liberal Arts and Sciences (Transfer)
Social Science Option — Political Science Concentration
64 Credits required for A.A. Degree

Curriculum Coordinator: Dr. A. Galub

<table>
<thead>
<tr>
<th>Core Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13 Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>CMS 11 Fundamental Communications</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91 Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td>MTH 21, 22, 23, 30 Mathematics</td>
<td>3-4</td>
</tr>
<tr>
<td>† Modern Language</td>
<td>0-12</td>
</tr>
<tr>
<td>HIS 11 or 12 History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>74-27</strong></td>
</tr>
</tbody>
</table>

Required Areas of Study

Natural Science and Mathematics — To be chosen from Math, Biology, Chemistry, Physics, Principles of Science (at least one laboratory science)

Humanities A — To be chosen from English and/or Communications (at least one course in English)

Humanities B — Art and/or Music (any course for which the student qualifies)

Social Sciences and History — Economics, History, Philosophy, Psychology, and Sociology

Physical Education activity course**

**Total** 23-24

Concentration Requirements

A minimum of 15 credits must be selected from among the following, with POL 11 as the first course:

- POL 11 American National Government
- POL 31 Comparative Government
- POL 41 The National Government & Civil Rights Since 1954
- POL 42 Civil Rights Throughout the World
- POL 51 Urban Politics
- POL 61 Solving Social Problems Through the Political Process
- POL 81 Field Work and Seminar in Political Science

Free Electives — to complete the required 64

---

1 See language requirements for Liberal Arts and Sciences A.A. degree.
2 Or a substitute approved by the Health and Physical Education Department.
LIBERAL ARTS AND SCIENCES
TRANSFER OPTIONS
(A.S. Degree)

Curriculum Coordinator: Prof. E. Just

Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 13</td>
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<tr>
<td>CMS 11</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>2</td>
</tr>
<tr>
<td>MTH 21, 23, 30</td>
<td>3-4</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>14-23</td>
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</table>

Required Areas of Study

Natural Science and Mathematics—To be chosen from Math, Biology, Chemistry, Physics, Principles of Science (at least one laboratory science) 7-8

Humanities A—To be chosen from English and/or Communications (at least one course in English) 6

Humanities B—Art and/or Music 3

Social Sciences and History—Economics, History, Philosophy, Political Science, Psychology* and Sociology 6

Physical Education activity course** 1

Total 23-24

Concentration Requirements for Psychology—A minimum of 15 credits must be selected in Psychology. PSY 11 must be taken, followed by at least 12 credits in Psychology elective courses.

Free Electives—to complete the required 64

Specialization Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MTH 31</td>
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<tr>
<td>MTH 32</td>
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<td>MTH 33</td>
<td>5</td>
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<tr>
<td>MTH 34, 35</td>
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<tr>
<td>PHY 31, 32</td>
<td>8</td>
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</table>

Free Electives

To complete the required 64 to 68 credits, students may take up to 12 credits in any department or discipline 0-12

Total 64-68

* See language requirements of Liberal Arts and Sciences, A.S. Degree, p. 134.

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

Note:

MTH 11 and MTH 16 will not be accepted for credit in the Liberal Arts curriculum.
COMPUTER SCIENCE

Computer Science may be thought of as the study of the computer; its theory, its design, and the manner in which it may be applied. The Computer Scientist must be well trained in mathematics and in addition be familiar with a physical science; he will possess the breadth of knowledge presented by a liberal arts program, while at the same time concentrating on those areas particularly applicable to the computer.

The aim of this program is to provide the student with an introduction to the field of Computer Science, to provide him with a background in mathematics, science, and the humanities necessary to this study, and to enable him to successfully transfer to a Computer Science Department of a senior college.

Growth in the employment of Computer Scientists has been rapid in the past decade and job opportunities should continue to expand into the 1970s and 1980s. At the same time, salary levels for men and women have been among the top in the professional fields.

Curriculum Pattern for Liberal Arts and Sciences Mathematics Option – Computer Science Concentration

64-68 Credits required for the A.S. Degree

Curriculum Coordinator: Prof. E. Just

First Semester

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
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<tr>
<td>PHY 31</td>
<td>College Physics I</td>
<td>4</td>
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<tr>
<td>MTH 31</td>
<td>Analytic Geom. &amp; Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
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Second Semester

<table>
<thead>
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<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>PHY 32</td>
<td>College Physics II</td>
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<tr>
<td>MTH 32</td>
<td>Analytic Geom. &amp; Calculus II</td>
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<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
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<tr>
<td>PEA 11-81</td>
<td>Physical Ed. activity</td>
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<tr>
<td>ENG</td>
<td>English Elective</td>
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Third Semester

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<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PHY 33</td>
<td>College Physics III</td>
<td>4</td>
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<tr>
<td>PHY 61</td>
<td>Computer Methods &amp; Programming</td>
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<tr>
<td>MTH 33</td>
<td>Analytic Geom. &amp; Calculus III</td>
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<td>Art or Music</td>
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<td>SOC</td>
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Fourth Semester

<table>
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<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>*DAT 41</td>
<td>Advanced Programming</td>
<td>4</td>
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<tr>
<td>MTH 45</td>
<td>Discrete Math. Systems</td>
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<tr>
<td>MTH 34</td>
<td>Diff. Equations &amp; Adv. Calculus</td>
<td>4</td>
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<tr>
<td>MTH 35</td>
<td>Adv. Calculus &amp; Linear Alg. Elective</td>
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<tr>
<td></td>
<td>Total</td>
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</tr>
</tbody>
</table>

*Prerequisite for Computer Science students: PHY 61 only.
Curriculum Pattern for Liberal Arts and Sciences
(Transfer)

64-67 Credits required for A.S. Degree —
Biology Specialization
64-67 Credits required for A.S. Degree —
Chemistry Specialization
64-67 Credits required for A.S. Degree —
Physics Specialization

Biology Option Curriculum Coordinator:
Prof. F. C. Costello

Chemistry Option Curriculum Coordinator:
Dr. C. Polowczyk

Physics Option Curriculum Coordinator:
Dr. J. Prince

Core Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
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<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
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<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
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<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
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<tr>
<td></td>
<td>Modern Language</td>
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<td><strong>Total</strong></td>
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Required Areas of Study**

Humanities A — To be chosen from English, Communications, or Modern Languages — One course must be in English — 6-7

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

History or Social Science — To be chosen from Economics, History, Philosophy, Political Science, Psychology, and Sociology — 3

Physical Education activity course — 1

**Total 13-14

Specialization Requirements

I. Biology:
- CHM 11, MTH 31 — First Semester — 8
- CHM 22, MTH 32 — Second Semester — 10
- BIO 11, CHM 31 — Third Semester — 8
- BIO 12, CHM 32 — Fourth Semester — 8

**Total 34

II. Chemistry:
- CHM 11, MTH 30 — First Semester — 8
- CHM 22, MTH 31 — Second Semester — 9
- CHM 31, CHM 33 — Third Semester — 8
- CHM 32 — Fourth Semester — 5

**Total 34

III. Physics:
- PHY 31, MTH 31 — First Semester — 8
- PHY 32, MTH 32 — Second Semester — 9
- PHY 33, PHY 34, MTH 33 — Third Semester — 13

**Total 33

Free Electives

To complete the required 64 to 67 credits, students may take courses in any department or discipline.

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*See language requirements of Liberal Arts and Sciences. A.S. Degree, p. 134.

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

***PHY 51 may be accepted in lieu of PHY 41 or 51 by special permission of the curriculum coordinator.

11If level of preparation adequate, student may take MTH 31, 32, 33.
MEDICAL LABORATORY TECHNOLOGY

Curriculum Coordinator: Prof. F. C. Costello

The advance of scientific knowledge in the field of medicine has multiplied the need for personnel trained in such areas as 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 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
65-68 Credits required for the A.A.S. Degree

First Semester

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
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<tr>
<td>BIO 15</td>
<td>Zoology</td>
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<tr>
<td>CHM 17</td>
<td>Chem. for Lab. Tech. I</td>
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<tr>
<td>MTH 16</td>
<td>11th Year Mathematics</td>
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Second Semester

<table>
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<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td>MTH 17</td>
<td>College Algebra</td>
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<td>BIO 25</td>
<td>Anatomy &amp; Physiology I</td>
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<tr>
<td>CHM 18</td>
<td>Chem. for Lab. Tech. II</td>
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<td>*</td>
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Third Semester

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
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<tr>
<td>PEA 11-81</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>or HLT 91</td>
<td>or Critical Health Issues</td>
<td>2</td>
</tr>
<tr>
<td>PSY 11 or 12</td>
<td>Psychology or</td>
<td></td>
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<tr>
<td>SOC 11</td>
<td>Sociology</td>
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<tr>
<td>BIO 26</td>
<td>Anatomy &amp; Physiology II</td>
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<td>BIO 35</td>
<td>Clinical Techniques I</td>
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<td>CHM 35</td>
<td>Organic Chemistry</td>
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Fourth Semester

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<th>Course Title</th>
<th>Credit</th>
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<tr>
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<td>Art or Music</td>
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<tr>
<td>BIO 41</td>
<td>Histology</td>
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<td>BIO 43</td>
<td>Microbiology</td>
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<td>BIO 36</td>
<td>Clinical Techniques II</td>
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<td>CHM 41</td>
<td>Biochemistry</td>
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<td>Total</td>
<td>15-17</td>
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</tbody>
</table>

*Choose from English, Communications, Modern Languages, Philosophy, Political Science, History or Economics.

**To complete the required minimum of 65 credits or a maximum of 68 credits students may take courses in any department or discipline.
Nursing

Curriculum Coordinator: Dr. B. Perlmutter

Students matriculated in the full-time Nursing program may become nurses after two academic years of study. Licensed Practical Nurses may take the College Proficiency Examinations in Fundamentals of Nursing and Maternal and Child Health. If a C grade or better is achieved, advance standing credits are given. Qualified, fully matriculated students attend Bronx Community College tuition-free and may live at home. Limited dormitory facilities with meals are available at no cost to the student. Lunch is available at no cost to all students enrolled in one of the nursing courses. Students who win New York State Regents' Scholarships may receive them at Bronx Community College.

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, St. Barnabas Hospital, Misericordia Hospital, Morrisania Hospital, Delafield Hospital, Westchester Square Hospital, and at the Bronx Municipal Hospital Center.

Students enjoy valuable supplementary experience through arrangements with other community agencies, such as nursery schools and nursing homes.

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. Graduates who achieve a 2.5 index are eligible to enter a senior institution within City University to continue study for a baccalaureate degree.

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Curriculum Pattern for Nursing

66-68 Credits required for the A.A.S. Degree

<table>
<thead>
<tr>
<th>Semester</th>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
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<tr>
<td></td>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td></td>
<td>ART 10 or MUS 10</td>
<td>Art Survey or Music Survey</td>
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<tr>
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<td>PSY 11</td>
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<td>BIO 21</td>
<td>Human Anatomy &amp; Physiology</td>
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<td>NUR 11</td>
<td>Nursing I</td>
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<td>CMS 11</td>
<td>Fundamental Communications</td>
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<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<td>BIO 28</td>
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<td>Second Semester</td>
<td>SOC 11</td>
<td>Sociology</td>
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<td>NUR 13</td>
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<td>CHM 14</td>
<td>Intro. to Biological &amp; Organic Chemistry</td>
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<td>NUR 14</td>
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*Choose from English, History, or Modern Languages.

**Choose from English, Science, Mathematics, Modern Languages, Communications, Music, Art, Social Sciences, Physics, or Physical Education.
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.

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**Curriculum Pattern for Performing Arts-Music**

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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</tr>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
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<tr>
<td>MUS 11 or 12</td>
<td>Intro. to Music</td>
<td>3</td>
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<tr>
<td>MUS 21 or</td>
<td>Choral Performance I or</td>
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<tr>
<td>MUS 31</td>
<td>Orchestral Performance I</td>
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<tr>
<td>MUS 41</td>
<td>Theory I</td>
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<tr>
<td>MUS 51</td>
<td>Ear Training I</td>
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<tr>
<td>MUS 71</td>
<td>Secondary Piano I</td>
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</tr>
<tr>
<td>MUS 83</td>
<td>Private Instruction I</td>
<td>2</td>
</tr>
</tbody>
</table>

**First Semester**

**Second Semester**

| HIS 11 or 12 | History of Western Civ.                      | 3      |
| SCI 11 or    | Science I or                                  | 3-4    |
| MTH          | Mathematics                                   | 3-4    |
| MUS 22 or    | Choral Performance II or                     | 1      |
| MUS 32       | Orchestral Performance II                     | 1      |
| MUS 42       | Theory II                                     | 2      |
| MUS 52       | Ear Training II                               | 1      |
| MUS 72       | Secondary Piano II                            | 1      |
| MUS 81       | Recital Performance                           | 1      |
| MUS 84       | Private Instruction II                        | 2      |
| †            | Elective                                      | 3      |

**Third Semester**

| PEA 11-81 or | Language I                                    | 4      |
| HLT 91       | Critical Health Issues                        | 2      |
| MUS 23 or    | Choral Performance III or                    | 1      |
| MUS 33       | Orchestral Performance III                    | 1      |
| MUS 43       | Theory III                                    | 2      |
| MUS 53       | Ear Training III                              | 1      |
| MUS 61       | Keyboard I                                    | 1      |
| MUS 85       | Private Instruction III                       | 2      |
| MUS 91 or    | Instrumental Ensembles I or                  | 1      |
| MUS 95       | Chamber Chorus I                              | 1      |
| †            | Elective                                      | 3      |

**Fourth Semester**

| Language II  | 4      |
| Elective     | 3-5    |
| MUS 24 or    | Choral Performance IV or                     | 1      |
| MUS 34       | Orchestral Performance IV                     | 1      |
| MUS 44       | Theory IV                                     | 2      |
| MUS 54       | Ear Training IV                               | 1      |
| MUS 62       | Keyboard II                                   | 1      |
| MUS 86       | Private Instruction IV                        | 2      |
| MUS 92 or    | Instrumental Ensembles II or                  | 1      |
| MUS 96       | Chamber Chorus II                             | 1      |

**Total Credits:**

- First Semester: 16
- Second Semester: 17-18
- Third Semester: 16-17
- Fourth Semester: 15-17

*To be taken, if needed, to meet the degree requirements. Otherwise, may be used as elective credits, or another elective may be substituted. See language requirements, p. 134.
†To be chosen from English, Communications, or Art.
‡To be chosen from History or Social Sciences.
SECRETARIAL STUDIES CURRICULA

Curriculum Coordinator: Prof. K. Takei

The College offers four options in Secretarial Studies—Executive Secretary, Legal Secretary, Medical Secretarial Assistant, and 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 Executive Secretary Option
*65-66 Credits required for A.A.S. Degree

First Semester

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Crs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>1</td>
</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
<td>1</td>
</tr>
<tr>
<td>SHO 11 or 15</td>
<td>Shorthand I (Gregg or Pitman)</td>
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</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>TYP 11</td>
<td>Typing I</td>
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</tr>
<tr>
<td>CMS 11</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

Second Semester

| **BIO 18** | Human Physiology                  | 4   |
| PEA 11-81  | Physical Ed. Activity             | 1   |
| §MTH 11    | 11th Year Mathematics I           | 3   |
| ACC 11     | Fundamental Accounting I          | 4   |
| SHO 12 or 16 | Shorthand II            | 1   |
| TYP 12     | Typing II                         | 2   |
| ♠ORI 42    | Career Orientation                | 1   |
| **Total**  |                                    | 11  |

Third Semester

| ART or MUS | Art or Music course               | 1   |
| COM 31     | Business Communications           | 3   |
| SHO 13 or 17 | Shorthand III     | 2   |
| TYP 13     | Typing III                        | 3   |
| ***        | Business & Commerce Elective      | 3   |
| ††         | Free Elective                     |     |
| **Total**  |                                    | 17  |

Fourth Semester

| SHO 14 or 18 | Shorthand IV                      | 1   |
| SEC 41       | Secretarial Practice              | 7   |
| ♠CWE 31      | Cooperative Work Exp. I           | 2   |
| ***          | Business & Commerce Elective      | 3   |
| Social Science Elective | Free Electives | 34  |
| **Total**    |                                    | 162 |

the curricula and programs 86
### Curriculum Pattern for Legal Secretary Option

*65-68 Credits required for A.A.S. Degree*

#### First Semester

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
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<tbody>
<tr>
<td>ENG 13</td>
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</tr>
<tr>
<td>HIS 11 or 12</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>SHO 11 or 15</td>
<td>Shorthand I (Gregg or Pitman)</td>
<td>3</td>
</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>TYP 11</td>
<td>Typing I</td>
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</tr>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total 17**

#### Second Semester

| *BIO 18 | Human Physiology                   | 4      |
| ACC 11  | Fundamental Accounting I           | 4      |
| LAW 47  | Legal Procedures                   | 3      |
| SHO 12 or 16 | Shorthand II                   | 3      |
| TYP 12  | Typing II                          | 2      |
| PEA 11-81 | Physical Ed. Activity              | 1      |
| FOR 42  | Career Orientation                 | 0      |

**Total 17**

#### Third Semester

| COM 31   | Business Communications            | 3      |
| LAW 41   | Business Law                       | 3      |
| SHO 13 or 17 | Shorthand III                      | 3      |
| TYP 13   | Typing III                         | 2      |
| SHO 31   | Legal Shorthand I                  | 3      |
| MTH 11   | 11th Year Mathematics I            | 3      |

**Total 17**

#### Fourth Semester

| SHO 32   | Legal Shorthand II                 | 4      |
| ART or MUS | Art or Music Course              | 3      |
| SEC 41   | Secretarial Practice              | 2      |
| TCE 31   | Cooperative Work Exp. I           | 2      |
| IT       | Free Elective                      | 3      |
|          | Social Science Elective           | 3      |

**Total 17**

---

*Students receiving exemption in Shorthand or Typewriting need 65 credits; others require 68 credits.

* Students considering transfer to senior colleges should consult their curriculum adviser for science requirement.

* MKT 11, BUS 51, LAW 41 or any other course subject to the approval of the counselor.

* Students may qualify for advanced math placement resulting from evaluation of high school math background. MTH 30 is recommended for students considering transfer to a senior college.

* May be waived for Evening Session students with approval of curriculum coordinator.

* CWE 31 may be taken as an elective in the third semester or may be waived with the approval of the curriculum coordinator.
### Curriculum Pattern for Medical Secretarial Assistant Option

*65-68 Credits required for A.A.S. Degree*

**First Semester**

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<tr>
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<td>BIO 18</td>
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<td>TYP 11</td>
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<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
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**Second Semester**

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<tr>
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<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>§MTH 11</td>
<td>11th Year Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
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<tr>
<td>TYP 12</td>
<td>Typing II</td>
<td>2</td>
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<tr>
<td>BIO 22</td>
<td>Medical Terminology</td>
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<td>†ORI 42</td>
<td>Career Orientation</td>
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**Third Semester**

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<td>BIO 46</td>
<td>Clinical Techniques I</td>
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<tr>
<td>SEC 34</td>
<td>Medical Office Practice I</td>
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<td>COM 31</td>
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<tr>
<td>††</td>
<td>Free Elective</td>
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<tr>
<td>PSY</td>
<td>Clinical Psychology Elective</td>
<td>3</td>
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**Fourth Semester**

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<th>Course Title</th>
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<td>Medical Office Practice II</td>
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</tr>
<tr>
<td>BIO 47</td>
<td>Clinical Techniques II</td>
<td>2</td>
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<tr>
<td>SOC 11</td>
<td>Sociology</td>
<td>3</td>
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<tr>
<td>LAW 45</td>
<td>Medical Law</td>
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<tr>
<td>††CWE 31</td>
<td>Cooperative Work Exp. I</td>
<td>2</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. activity</td>
<td>1</td>
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<td></td>
<td>Free Elective</td>
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<td></td>
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</tbody>
</table>

*Students receiving exemption in Shorthand or Typewriting need 65 credits; others require 68 credits.*

**Students considering transfer to senior colleges should consult their curriculum adviser for science requirement.*

§Students may qualify for advanced math placement resulting from evaluation of high school math background. MTH 30 is recommended for students considering transfer to a senior college.

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

††CWE 31 may be taken in the third semester as an elective or may be waived with the approval of the curriculum coordinator.
SECRETARIAL TEACHING CURRICULUM

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
**65-68 Credits required for A.A. Degree

<table>
<thead>
<tr>
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<th>Credit</th>
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<tbody>
<tr>
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<tr>
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<td>Fundamental Composition</td>
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<tr>
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<td>Physical Ed. (choose one)</td>
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<tr>
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<tr>
<td>MUS 11</td>
<td>Modern Language</td>
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<tr>
<td>SHO 11 or 15</td>
<td>Shorthand I (Gregg or Pitman)</td>
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<tr>
<td>TIF 11</td>
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<table>
<thead>
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</tr>
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<td>MT 91</td>
<td>Critical Health Issues</td>
</tr>
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<td>Art or Music</td>
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<tr>
<td>BLS 11 or 16</td>
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<tr>
<td>SHO 12 or 16</td>
<td>Shorthand II</td>
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<td>TIF 12</td>
<td>Typing II</td>
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<table>
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<tr>
<th>Third Semester</th>
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<td>Course Title</td>
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<td>COM 31</td>
<td>Mathematics</td>
</tr>
<tr>
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<td>Shorthand III</td>
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<tr>
<td>TIF 14</td>
<td>Typing III</td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
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<tbody>
<tr>
<td>BUS 51 or ACC 11</td>
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<td>Business Organization &amp; Management or</td>
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<tr>
<td></td>
<td>Fundamental Accounting I or Business Law</td>
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<tr>
<td>LAW 41</td>
<td>Secretarial Practice</td>
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<tr>
<td>REC 41</td>
<td>Shorthand IV</td>
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<tr>
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<td>CHS 51</td>
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<td>TIF 43</td>
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<td></td>
<td>Senior Orientation</td>
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<td></td>
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</tbody>
</table>

* Students must consult counselor for language requirements of senior college to which they plan to transfer.

** Students receiving exemption in Shorthand and Typewriting need 65 credits; others require 68 credits.

Accounting 11 required for students planning to transfer to Baruch College.

1. To be chosen from English, Communications, Economics, Political Science, Psychology, Philosophy, Sociology, or History.

1. May be waived for evening students with approval of curriculum coordinator.

§ To be chosen from MTH 21, 22, 23, 30 or 31.
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 each hour of class or lecture for which considerable out-of-class preparation is required; or for a unit of two or three "laboratory," "gym," or "clinic" hours.

1. The term rec (recitation) refers to the traditional recitation-discussion-seminar form.
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 cancel any course for which there is insufficient enrollment, or to make any changes in prerequisites, course descriptions, credit allocation, 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: Associate Professor
Francis C. Costello
Professors: K. Prestwidge, H. White
Associate Professor: R. Heller
Instructors: M. Fein, Z. Kish, J. Moore, L. Squitieri

BIO 11 General Biology I 2 lect 4 lab 4 cr
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 II 2 lect 4 lab 4 cr
A continuation of BIO 11. Prerequisite: BIO 11.

BIO 15 Zoology 2 lect 4 lab 4 cr
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 4 lect 4 cr
A physiological study of the skeletal, 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 3 lect 3 lab 4 cr
and Physiology
Anatomy and physiology of the integumentary, skeletal, muscular, digestive, nervous, circulatory, excretory, respiratory, endocrine and reproductive systems of the human body; special senses. For Nursing students only.

BIO 22 Medical Terminology 2 lect 2 cr
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Lecture</th>
<th>Lab</th>
<th>Crs.</th>
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<td>Anatomy and Physiology I</td>
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<td>BIO 26</td>
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<td>the senses; metabolism; immunity. Recent advances</td>
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<tr>
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<td>and chick from gamete stage to adult.</td>
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<td>BIO 35</td>
<td>Clinical Techniques I*</td>
<td>1</td>
<td>3</td>
<td>2</td>
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<td>CHM 18, BIO 25</td>
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<tr>
<td></td>
<td>Use of basic laboratory tools, glassware and</td>
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<td></td>
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<td>BIO 41</td>
<td>Histology and Microtechniques*</td>
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<td>CHM 17, 18, BIO 25</td>
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<td>Study and preparation of vertebral tissues and</td>
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<td>organs for microscopic study, with emphasis on</td>
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<td>clinical histologic techniques. Prerequisites:</td>
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BIO 43 Microbiology* 2lect 4lab 4 cr
Isolation, cultivation, preparation and identification of pathogenic and non-pathogenic bacteria. Emphasis on specialized methods in medical bacteriology and serology, medical synecology and parasitology. Prerequisites: M.L.T. -- BIO 26, CHM 35; L.A. -- CHM 18, CHM 35, BIO 12 and written permission from instructor.

BIO 46 Clinical Techniques 1 lect 3 lab 2 cr
for Medical Secretaries I
Use and care of instruments such as the microscope, sphygmomanometer, basal metabolator, electrocardiograph, sterilizer, centrifuge and balance; urinalysis-physical, chemical and microscopic tests. Prerequisite: BIO 18

BIO 47 Clinical Techniques II 1 lect 3 lab 2 cr
for Medical Secretaries
Use and care of various medical instruments; sterile techniques; analysis of blood—complete blood count, hematocrit, sedimentation rate, blood glucose. Prerequisite: BIO 46.

BIO 51 Fundamentals of Ecology
Introduction to dynamics of the ecosystem, population development, food chains, succession, current topics in ecology. Laboratory and field work utilize techniques useful in basic environmental and community analysis. Field trips. Prerequisite: BIO 11.

Accounting

ACC 11 Fundamental Accounting I 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 curriculum) BUS 11.

ACC 12 Fundamental Accounting II 5 rec 4 cr
Extension of the principles of accounting to partnerships and corporations. Prerequisite: 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; for Data Processing students: ACC 12.
Business

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. Prerequisite: Three years of high school mathematics or MTH 06.

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. Prerequisite or corequisite: ENG 13.

Cooperative Work Experience

CWE 31 Cooperative Work Experience I 0 rec 3 cr
CWE 32 Cooperative Work Experience II 0 rec 3 cr
Students are assigned to a job with cooperating employer for part-time work (minimum of 15 hours a week for 13 weeks a semester) under the supervision of a professional Job Coordinator. Students are compensated at the prevailing wage rate for the job they hold. Student is required to attend periodic job review with the Job Coordinator, maintain daily log of job activities, prepare a semester report analyzing the problems and procedures of assigned organization. Prerequisite: Students carrying minimum of 12 credits who satisfactorily completed 30 credits in chosen curriculum pattern for CWE 31; 45 credits for CWE 32.

*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 corequisite to ACC 11 for matriculants in the Business Curriculum with Accounting Specialization.
Data Processing

DAT 20 Punched Cards 2 lab 4 cr
and Basic Wiring
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 2 lab 4 cr
Concepts
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 I 8 lab 3 cr
Applications of EAM equipment in the manufacturing and retailing industries as they pertain to payroll, general ledger, accounts receivable, accounts payable, production control, inventory control, sales analysis. Prerequisites: ACC 11, DAT 21.

DAT 23 Machine Accounting Applications II 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 3 cr
Introduction to data processing equipment and operation; ranges from unit-record equipment to electronic computers. Introduction to basic elements of electronic data processing, input, processing, storage, and output; flow-charting, numbering systems, and programming languages. Applications include business, economics, science and social problems. Prerequisites: Students are expected to complete RDL 02, ENG 01, MTH 05 or equivalent prior to enrolling in DAT 30.

DAT 31 Advanced Systems Analysis 3 cr
Introduction to techniques in systems analysis and design. Forms design, coding systems, operating systems, direct access storage devices and telecommunications. Practical applications relating to business situations. Prerequisite: DAT 30.

DAT 40 Basic Computer Programming 3 lab 4 cr
Introduction to COBOL programming utilizing the IBM/360. Problems are assigned and students are required to flow-chart, code, debug, test, and document their solutions. Applications in accounting, inventory control, retailing, and other record-keeping operations. Prerequisite: DAT 30 or permission of chairman.

DAT 41 Advanced Programming 3 lab 4 cr
Techniques of writing computer programs in Basic Assembly Language, a symbolic language. This will include data representation, operation codes, direct and indirect addressing, development of data files and use of macro instructions. Students are assigned several programs to demonstrate their programming ability. Prerequisite: DAT 40 or PHY 61, or permission of chairman.
DAT 42 Advanced Programming and Systems Application
Sophisticated problems in Assembly Language. Use of Tape and Disc Operations. Comprehensive systems applications requiring systems analysis, systems design, determination in input, output and processing specifications, flow-charting, block diagramming, coding, key punching, testing, debugging, and documentation are explored. Prerequisite: DAT 41.

DAT 50 Management of Data Processing Installation
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.

Finance

FIN 31 Principles of Finance
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.

Law

LAW 41 Business Law
Survey of American legal system; principles of law and application of Uniform Commercial Code in contracts; application of principles to typical business problems.

LAW 45 Medical Law
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.

LAW 47 Legal Procedures
Common, statutory and constitutional law; the judicial system; proceeding, civil and criminal, from initiation to enforcement and judgment. Role of the legal secretary.
Marketing Management and Sales

**MKT 11 Marketing**  
3 rec 3 cr  
Principles of marketing goods and methods of distribution from producer or manufacturer to consumer. Types, functions, practices of wholesalers and retailers; efficient marketing techniques. **Prerequisite or corequisite:** ENG 13.

**MKT 13 Textiles**  
4 rec 4 cr  

**MKT 14 Fashion Markets and Trends**  
3 rec 3 cr  
Style, construction and quality of apparel and accessories; application of color line and design to fashion; fashion coordination and analysis of fashion trends. **Prerequisite:** MKT 13.

**MKT 17 Consumer Problems and Personal Finance**  
3 rec 3 cr  
Introduction to the problems of consumers in the purchasing of services and goods, including housing, medical services, insurance, social security, credit, and the detection of frauds relating to these purchases. Management of the consumer's money in taxes, savings, loans, investments, and estate planning. **Prerequisite:** MKT 11 or permission of department.

**MKT 18 Consumer Behavior**  
3 rec 3 cr  
Introduction to basic characteristics of consumers which affect choices in the marketplace; techniques employed by marketing agencies and advertisers to optimize sales and profits. Study of consumer behavioral patterns of independent and group travelers related to travel operators. **Prerequisite:** MKT 11.

**MKT 31 Salesmanship**  
2 rec 2 cr  
Theory and technique of successful salesmanship, customer-centered selling, demonstration of product, handling objections, closing the sale, achieving long-term customer approval and good will. Introduction to sales management.

**MKT 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:** MKT 11.
MKT 35 Retail Merchandising 4 rec 4 cr
Theory and principles of merchandising and its application to the basic profit elements including the mathematics of markup, markdown, gross margin, turnover, stock planning, sales planning, the merchandise plan, pricing, open-to-buy; and the retail method of inventory procedure. Prerequisites: ACC 11 and BUS 11; corequisite: MKT 33.

MKT 41 Management of Retail Operations 3 rec 3 cr
Organization and operation of retail stores; layout; budgeting; credit procedures; maintenance; personnel; employment; training and management; receiving and marking procedures; security; public relations. Prerequisite: MKT 11.

MKT 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 advertising techniques and advertising plans. Prerequisite: MKT 11.

MKT 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.

MKT 61 International Travel 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.

MKT 70 International Marketing 3 rec 3 cr
Introduction to international marketing with emphasis on the empirical dimensions of world economy, business enterprises in international trade, concepts and theory of international trade, research on world market, advertising, financing, foreign legal and cultural restrictions, and role of government in fostering international business. Prerequisite: MKT 11.

MKT 71 Tourism 3 rec 3 cr
Construction and development of the tourism industry as an economic base, examined from both government and private viewpoints. The international, national, regional, state, and local segments of the industry are evaluated. The total tourism plant is thus analyzed to ascertain the role of each sector including that of the private investor.

MKT 72 Regulatory Agencies and Types of Carriers 3 rec 3 cr
An intensive study and examination of the various carriers engaged in the business of travel and tourism (bicycle, railroad, ship, bus, automobile, charter and regular air flights, safari) and of the various regulatory agencies that affect the operation of the travel and tourism industry. Problems of sales supervision, personnel, promotion, legal responsibilities, pricing, as well as procedures, responsibilities, and operational aspects. Prerequisite: MKT 71.

MKT 73 Wholesale Tour Operation 3 rec 3 cr
Functions of the wholesale tour operator; includes tour operations and development, sales and supervision of tours, costing, special contracts, and the promotional aspects of wholesale areas of travel and tourism. Prerequisite: MKT 72.

MKT 74 Retail Travel Agency Operation 3 rec 3 cr
The retail travel agency, its operation and management. Offers professional training in the areas of retail travel management. How to start a travel business, choice of location, personnel, office; conference and carrier appointments; commission schedules; General office procedures. Prerequisite: MKT 71.
CHEMISTRY AND CHEMICAL TECHNOLOGY

Chairman: Professor Carl Polowczyk
Professors: S. Atlas, J. Buckley
Associate Professors: P. Babnis, R. Clarke, M. Pulver, H. Stein, I. Zimmerman
Assistant Professors: J. Fahey, D. Gracian, R. Harris, R. Miller, E. Passer, J. Riley, D. Sussman, S. Ukeles

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 1 rec 2 lect 2 lab 0 cr
Introduction to types of matter, elements, 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 I 1 rec 2 lect 3 lab 4 cr
CHM 12 General College Chemistry II 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. (Chemistry and other science majors should take CHM 22 in the second semester.) Prerequisite for CHM 12: CHM 11.

CHM 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.

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 17 Chemistry for Laboratory Technologies I   1 rec 2 lect 4 lab 4 cr
CHM 18 Chemistry for Laboratory Technologies II  1 rec 2 lect 4 lab 4 cr

Fundamental principles of 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. (The Laboratory is more quantitative and is intended for the Medical Laboratory and Chemical Technology curricula.) Prerequisites: Placement exam or CHM 02.

CHM 22 General Chemistry II with Qualitative Analysis

CHM 24 Plastics Chemistry
Chemistry in relation to the plastic industry. Special emphasis on organic chemistry and chemistry of high polymers.

CHM 31 Organic Chemistry I
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 II
A continuation of CHM 31. Prerequisite: CHM 31.

CHM 33 Quantitative Analysis
Theory and laboratory methods of Quantitative Chemical Analysis with laboratory determinations employing gravimetric and titrimetric (volumetric) methods, including acid-base, precipitation and oxidation-reduction reactions; use of chelating agents and analytical instruments. Prerequisite: CHM 22.
CHM 35 Fundamentals of Organic Chemistry 1 rec 2 lect 3 lab 4 cr
Nomenclature, structure, properties and reactions of typical organic molecules. Laboratory: preparation, properties and identification of typical organic compounds. Prerequisite: CHM 12.

CHM 41 Biochemistry 1 rec 2 lect 4 lab 4 cr
Chemistry of metabolism, electrolytic equilibrium, reaction mechanism, catalysis, oxidation reduction, enzymes, metabolism of carbohydrates, proteins, fats and nucleic acids. Prerequisite: CHM 35.

CHM 43 Physical Chemistry 1 rec 2 lect 3 cr
Atomic concepts of matter and energy; nature of gaseous, liquid and solid states; thermochemistry and thermodynamics; homogenous equilibria; kinetics, electrochemistry, solution theory and colloids. Prerequisites: CHM 31, CHM 33.

CHM 44 Chemical Instrumentation 2 rec 4 lab 3 cr
Introduction to concepts of modern analytical methods. Elementary principles of electronics, and uses of instruments. Spectrophotometry (visual, ultraviolet and infrared); polarography, potentiometry, gas liquid partition, chromatography, electro gravimetric methods, radioactive techniques, emission spectrophotometry, flame and atomic absorption photometry. Prerequisite: CHM 33.

CHM 45 Industrial Analysis 2 rec 6 lab 4 cr
Analysis of representative products of chemical plant operations including petroleum, food, oils and fats, pharmaceuticals and plastics. Instrumentation; using typical industrial equipment. Methods according to ASTM, AOAC, API, USP. Prerequisites: CHM 31, CHM 33.

CHM 46 Introduction to Chemical Industry 3 rec 2 cr
Study of procedures used in unit operations in chemical engineering; representative types of equipment used; and observation of practical applications of industrial processes by visits to representative manufacturing plants. Prerequisites: CHM 32, CHM 33.

CHM 51 Chemistry -- A Cultural Approach I 1 rec 2 lect 3 lab 4 cr

CHM 52 Chemistry -- A Cultural Approach II 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. Emphasis on the humanistic approach. Intended for non-science majors. Prerequisites: MTH 05 or high school equivalent and high school chemistry or CHM 02.

CHM 55 Chemistry for Citizens 3 rec 3 cr

CHM 56 Chemistry for Citizens Laboratory 3 lab 1 cr
Exploration of problems arising from the expanding human population and increasing industrial technology and how chemistry relates to and can aid in understanding the problems and attempting solutions. Lab includes introduction to properties of chemicals and use of techniques for present pollution detection and monitoring. Laboratory is optional (3 lab hours—one credit).
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 Processing** 2 rec 3 lab 3 cr
Compounding and Process Instrumentation
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 blend. 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
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
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
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
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 interdepartmental offering, in cooperation with the Departments of Biology, Chemistry, and Physics, administered in the Department of Chemistry.

SCI 11 Principles of Science I
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 II
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, non-metals, metallic state, organic chemistry, minerals and rocks, geological processes, astrophysics.

*Students expecting to transfer to a senior college of City University should consult their curriculum advisers before registering for these courses.
COMMUNICATION ARTS
AND SCIENCES

Chairman: Professor Wynn R. Reynolds
Professors: W. Duncan
Associate Professors: R. Bowman, P. Gelb, N. Gilroy, R. King, A. Lande, M. Stergianopoulos
Instructors: J. DiGiovanni, S. Savary, M. Valentino

CMS 01 Speech Clinic
1 rec 8a
Clinical program of speech therapy for organic and functional disorders such as severe voice, lisp, stuttering, and related articulatory difficulties. Students are assigned according to need on the basis of Speech Placement Screening, Diagnostic Interview, referral by department faculty. Required course for students where evaluation indicates need.

CMS 10 Speech Clinic
2 rec 1/2a
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 assigned to/continued in CMS 10 while taking required Communications courses. (Open only to students assigned on the basis of the Speech Placement Test or a diagnostic interview.)

CMS 11 Fundamentals of Interpersonal Communication
3 rec 3a
Dynamics of communication through examination of theory and through discussion. Designed to provide understanding of communicative processes; opportunities for each student to experiment with his personal communicative activity.
CMS 12 Public and Group Communication 
Experience in the preparation, delivery and criticism of various forms of public and group communication with consideration of contemporary methods and media.

CMS 14 Introduction to Mass Communication 
A survey of mass communication media, including radio, television, film, and print (press); the development, special nature (features, characteristics), and uses of the media, and their effects on the individual and his environment. Prerequisite: CMS 11.

CMS 21 Voice and Diction: Communication in the Professional Environment 
Study of voice and articulatory factors in effective speech communication, with special attention to individual needs through speech diagnosis, development of auditory discrimination, and exercises geared to individual and group needs. Designed for the student who needs more effective speech communication for the business and professional environment.

CMS 25 Argumentation and Debate 
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: CMS 11.

CMS 31 Oral Interpretation of Literature 
Principles and practice of oral interpretation of literature, including oral presentation of appropriate selections of prose and poetry. Final oral project and critical paper are required.

CMS 35 Parliamentary Procedure and Practice 
A practical course in the efficient use of parliamentary procedure as a democratic instrument for group deliberations. Field work.

CMS 61 Communicative Techniques in the Democratic Procedures 
Practical workshop course which offers the 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. Field work.

CMS 71 Afro-American and Puerto Rican Spokesmen 
Analysis and evaluation of the messages and rhetorical methods of selected Afro-American and Puerto Rican spokesmen. Field work.

CMT 41 Play Production I 
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. Field work.

CMT 42 Play Production II 
Theatre arts; individual projects chosen by the student from costuming, make-up, lighting, scenic design and construction, rehearsal techniques, role of the director and/or producer, and stage manager are the major sources of instruction. Lecture is at a minimum. Goal is to give students the technical skill to mount an actual production. Field work.

CMT 43 Principles of Directing 
Directing elements of play scripts analyzed and dramatized. Students cast and rehearse members of acting classes in brief scenes. Full direction of a one-act play to be presented before the public. Prerequisite: CMT 41 or 42 or CMT 51 or 52, and/or permission of instructor.

CMT 51 Acting I 
Introduction to basic acting problems of analyzing and creating a character through improvisation, pantomime, theatre games, scene practice and analysis of scenes, culminating in presentation of a one-act play. Outside class assignments. Field work.
CMT 52 Acting II 3 rec 3 cr
Advanced course for those who have successfully completed Acting I. Rehearsal and study performance techniques. Problems of auditioning, research work on theories of acting, interpretation of absurdist and avant-garde theatre culminating in presentation of a full-length play. Field work.

CMT 53 Theory of the Theatre 3 rec 3 cr
Study of the movements and theories of world theatre, including an examination of relevant theatrical structures and equipment. European and American theatre; Oriental theatre and related dance, including Japanese, Chinese, Indian, Balinese; African theatre. Emphasis on theatrical elements rather than dramatic literature.

CMT 81 Seminar and Independent Study in Dramatic Arts with Field Projects 1 rec 3 cr
Elective for students who wish to work independently in some area of dramatic art. Weekly seminar in addition to independent work on an acceptable creative project, or with the Bronx Council on the Arts in a community center supervising and instructing in drama. Prerequisite: CMT 41 or 42 or CMT 51 or 52, and/or permission of instructor.

CMF 91 Man and the Movies I 3 rec 3 cr
Study of documentary and narrative motion pictures and their role in the world. Development of the film as an art form, as entertainment, as a business, and as a major source of influence upon and reflection of society.

CMF 92 Man and the Movies II 3 rec 3 cr
Study of the aesthetics, techniques, and production aspects of filmmaking through lecture, discussion, reading, writing, viewing, and making films.

CMV 96 Man and Television I 3 rec 3 cr
A study of the social, educational and economic impact of television on our lives today. The relation between the urban community and the medium examined. Is the medium the message? What are the cultural implications? What can be done to improve the medium? Technological artistic and communicative aspects explored for their educational potential.

CMV 97 Man and Television II 3 rec 3 cr
Continuation of Man and Television I. Seminars and independent student projects designed to explore the cultural impact of television on our society.
Relationship between voltage, current, resistance, power and energy in linear DC circuit elements. Concepts are extended to networks containing several branches and generators. Includes Thevenin's theorem, introduction to capacitors, inductors, magnetic circuits. Use of basic test instruments. Corequisite: MTH 16.

ELC 15 Electric Circuits 1 rec 2 lab 2 cr
Introduction to DC and AC circuits. Qualitative approach. 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.) Corequisite: MTH 16.

ELC 16 Industrial 1 rec 2 lab 2 cr
Electronic Instrumentation
Introduction to semiconductors and vacuum tube electronics, basic principles of electrical 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.) Prerequisite: ELC 15.

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

ELC 35 Communication Electronics
Continuation of ELC 25. Multistage amplifiers, power amplifiers including 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 include frequency response, feedback, amplifiers, oscillators. Prerequisite: ELC 25; corequisite: MTH 18, PHY 21.

ELC 38 Electric Product Design and Measurements

ELC 45 Electronic Project Laboratory
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, micro-electronic equipment utilization. Prerequisites: ELC 35; ELC 38; corequisites: ELC 72 (Power and Control option only), ELC 82 (Communication option only) ELC 92 (Computer option only).

ELC 72 Electric Machines and Power
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
Structure of instruments, techniques of measurement, and methods of recording measurements of electrical power systems. (Required for Power and Controls option only.) Prerequisite: ELC 72.

ELC 78 Electrical Control Systems
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 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.
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<th>Course</th>
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<tr>
<td>ELC 82</td>
<td>Networks and Transmission Lines</td>
<td>3 rec 3 lab 4 cr</td>
<td>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 Communication option only.) Prerequisite: ELC 21; corequisite: MTH 18.</td>
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<tr>
<td>ELC 85</td>
<td>Microwaves</td>
<td>3 rec 3 lab 4 cr</td>
<td>Microwave 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.</td>
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<tr>
<td>ELC 88</td>
<td>Communication Systems</td>
<td>3 rec 3 lab 4 cr</td>
<td>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.</td>
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<tr>
<td>ELC 92</td>
<td>Pulse and Digital Circuits</td>
<td>3 rec 3 lab 4 cr</td>
<td>Circuits used in the generation and control of non-sinusoidal waveshapes, applications to timing, telemetering, cathode ray displays, television, 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; corequisite: ELC 35.</td>
</tr>
</tbody>
</table>
ELC 95  Computer Fundamentals  3 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 35.

ELC 98  Computer Design  3 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. Laboratory: Assembly, operation and testing of advanced computer and logic circuits and of large computer complexes and applications of computer programming. (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 technical deficiency. Course includes use of instruments, orthographic projection, auxiliary views, sections, pictorials, threads and fasteners, dimensioning, and electronic diagrams, schematics. (Upon completion of course requirements with a grade of C or better 2 credits may be earned for MEC 11.)

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  1 lect 3 lab 2 cr  
**Engineering Graphics**
Fundamental engineering drawing and industrial drafting room practice. Lettering, orthographic projection, auxillary views, sections and conventions, pictorials, threads and fasteners, tolerances, detail drawing, dimensioning and electrical drawings; introduction to computer-aided graphics.

MEC 12  Applied  1 lect 3 lab 2 cr  
**Engineering Graphics**
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  1 lect 3 lab 2 cr  
**Manufacturing Processes**
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  2 rec 3 lab 3 cr  
**and Numerical Control**
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  4 rec 0 lab 4 cr  
**Introduction to Strength of Materials**
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  2 lect 3 lab 3 cr  
**Materials**
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 lect 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 mechanism, 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
Energy and energy interchange; ideal and actual thermodynamic cycles: Carnot, Otto, Rankin, and Reversed Carnot. Ideal and actual gases and vapors as working substances. Fluid statics and mechanics. Fundamentals of heat transfer. Laboratory work includes measurements of temperature and pressure, internal combustion engine, fluid flow, refrigeration and air conditioning, steam turbine and plant visits. Prerequisites: MTH 17, PHY 22; corequisite: CHM 15.

MEC 41 Metallurgy and Engineering Materials
Physical metallurgy, properties of ferrous and non-ferrous metals, as well as non-metallic 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
Application of mechanical engineering theory to the solution of practical laboratory problems. Projects include the design, fabrication and testing of prototype mechanical or electromechanical equipment. Students work as technicians under direction of instructor who acts as project engineers. Prerequisites: MEC 21, MEC 25.

MEC 51 Descriptive Geometry
Solution by graphical methods or 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
Continuation of MEC 31 with emphasis on synthesis. Stress concentration, variable loading; bearings 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, application of digital computers. 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
Survey of the operations of typical industrial manufacturing and processing plants. Organization, plant location and layout, research and development, product design, methods engineering, standards, production control, quality control, inventory control, operations research, computer applications. Laboratory problems in 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
A special program to acquaint senior Engineering Science transfer students with detailed fields of specialization in engineering, colleges offering various engineering programs, and the methods of making a successful transition from the community college to the four-year college. Topics discussed include specialized fields of engineering, approved college engineering curricula, selecting a college, making application, and financial aid. Individual problems are discussed.
ENGLISH

Chairman: Professor Lillian Gottesman
Professors: C. Auser, I. Berger, A. Beringause, L. Lieberman, B. Mandelbaum, G. Motola, B. Pollin
Associate Professor: M. Frank
Lecturers: S. Fawcett, R. Jackson, R. Kuczkowski, M. Matthew, E. Schor, C. Slade

ENG 01 Writing Laboratory I
Review and practice of basic principles of grammar and usage, with emphasis upon sentence structure and various mechanical aspects of writing. Concentrates upon the correction of severe writing problems: sentence fragments, sentence misconstruction (including the “comma splice” and “run-on” errors), lack of subject verb agreement, faulty use of pronouns, misspellings of common words, carelessness or inaccuracy in punctuation and capital letters.

ENG 02 Writing Laboratory II
Extensive writing practice with emphasis upon paragraph development and unity. Student will learn to develop paragraphs through argument, narration, particulars and details, comparison-contrast, process, cause and effect, etc. Helps the student to write effective paragraphs in preparation for ENG 13.

All courses offered by the English Department will include composition. In courses providing a fourth recitation hour, the fourth hour will be utilized by the instructor for instructional purposes for designated students as he determines to be necessary.

ENG 13 Fundamentals of Written Composition
Fundamental principles of organization and grammar; practice in expository writing; selected readings; research paper techniques.
ENG 14 Written Composition 3 rec and Prose Fiction 1 conf/rec 3 cr
Continued emphasis on the writing of clear, effective expository prose based on readings in short stories and novels. Research paper required. Prerequisite: ENG 13.

ENG 15 Written Composition 3 rec and Drama 1 conf/rec 3 cr
Continued emphasis on the writing of clear, effective expository prose based on readings in world drama. Research paper required. Prerequisite: ENG 13.

ENG 16 Written Composition 3 rec and Poetry 1 conf/rec 3 cr
Continued emphasis on the writing of clear effective expository prose based on readings in poetry in the English language. Research paper required. Prerequisite: ENG 13.

ENG 17 Poetry as a Musical Art 3 rec 1 conf/rec 3 cr
A study of poetry utilizing the student's knowledge of music. Consideration of musical analogies that exist between poetry and music, song style, rhythm, reiteration, harmonic and stanzaic organization, sound patterning and suggestivity. Prerequisite: ENG 13 and ability to read simple musical notation.

ENG 18 Advanced Composition 3 rec 3 cr
To improve skills in expository writing through writing articles, formal and informal essays, reviews, scholarly reports according to individual interests and needs. Problems in rhetoric, semantics, style, and developing one's own style. Prerequisite: ENG 13.

ENG 19 Journalism I 3 rec 1 conf/rec 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. Visits to newspaper offices and plants and participation in production of college newspaper. (May be substituted for ENG 13 with approval of chairman).

ENG 20 Journalism II 2 rec 2 cr
Student is assigned to write for, edit, and proofread BCC's two student publications, the Communicator and Newsletter. Once a week, students meet with instructor to evaluate their work. Prerequisite: ENG 13.

ENG 23 Scientific and Technical Writing 2 rec 2 cr
Study and practice of various types of writing employed within scientific and technological disciplines, including abstract, progress reports, description of a process, technical proposals, and technical reports. For students in career and technical programs. (Liberal arts students must have written permission of the Chairman of the English Department.) Prerequisite: ENG 13.

ENG 40 Folklore 3 rec 3 cr
Study of American folk literature including an examination of oral traditions such as folk speech, proverbs, folktales, folksongs and ballads. Elements of folk superstitions, dreams, and games and folk life. Prerequisite: ENG 13.
ENG 41 History of the English Language 
Focus is on description and history of the English language from Old English to Twentieth Century American English as evidenced in literary texts; language elements, writing systems, language families, grammars, dictionaries, and geographical and social dialects. Prerequisite: ENG 13.

ENG 50 American Literature and Thought I
Major themes in American literature, thought and history from colonial period to the end of the era of the new republic. Selected authors may include Paine, Cooper, Irving, Poe, Thoreau, Emerson, and Whitman. Prerequisite: ENG 13.

ENG 51 American Literature and Thought II
Major themes in American literature and thought from the end of the Civil War to the present. Selected authors may include Melville, James, Twain, Eliot, Hughes, Hemingway, and Ellison. Prerequisite: ENG 13.

ENG 53 The Black Writer in American Literature
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, with emphasis on prose. Critical or research paper required. Prerequisite: ENG 13.

ENG 54 Black Poetry
Poetry of all modes by Black American poets. Consideration of the social environments producing this literature; a study of techniques and subjects of various Black poets, particularly of the Harlem Renaissance and the Black Revolution. Readings include works of Cullen, McKay, Hughes, Toomer, Tolson, Hayden, Jones, Evans, Brooks, Pritchard, Ted Joans, Victor Hernandez, Cruz, and others. Composition is an integral part of the course. Prerequisite: ENG 13.

ENG 55 Literary Criticism
Philosophies and examples of literary criticism, such as Aristotle's Poetics, Trilling's The Opposing Self, and the theories analyzed by such writers as Wellek and Hyman. Critical analysis of a literary work required. Prerequisite: ENG 13.

ENG 56 Children's Literature
Discussions and lectures on history, development, and critical evaluation of children's literature (including works from other cultures in translation), and the opportunity to write a work for children. Prerequisite: ENG 13.
ENG 61 Shakespeare 3 rec 3 cr
An introduction to the plays of Shakespeare. Representative tragedies, comedies, and histories are read and analyzed. Poetic and dramatic techniques and the Elizabethan theatre are studied. Critical or research paper required. Prerequisite: ENG 13.

ENG 62 Knights, Ladies and Romance 3 rec 3 cr
Reading and discussion of selections (in Modern English) of Chaucer's Canterbury Tales, Sir Gawain and the Green Knight, Second Shepherd's Play, Everyman, love lyrics, Malory's Morte d'Arthur, sagas, Dante's Inferno, Arabian Nights, Irish heroic tales, Hebrew tales of King Arthur and El Cid. Prerequisite: ENG 13.

ENG 65 Honors Elective: Independent Research 3 cr
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 English courses taken at Bronx Community College. He must have, also, the recommendation of an instructor in the English Department 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.

ENG 71 A Survey of Post-Biblical Hebrew and Yiddish Literature 3 rec 3 cr
Literature of the various genres by Jewish writers. Consideration of the historical and social milieu which produced this literature; study of techniques and subjects of various Jewish writers. Readings include works of Ibn Gabirol, Halevi, Singer, Aleichem, Peretz, Asch, Agnon, Bialik, and samplings from Talmudic, Midrashic, and Kabbalistic literature. Written themes on relevant topics will be assigned. All literature studied will be in English. Prerequisite: ENG 13.

ENG 72 The Bible as Literature 3 rec 3 cr
Study of the prime Biblical narratives as well as chief poetic and wisdom sections of both old and new testaments, including the Apocrypha. Biblical texts to be read in English; short themes on both texts and their scholarly critiques. Prerequisite: ENG 13.

ENG 73 Introduction to Jewish Folklore 3 rec 3 cr
The Biblical exegetes, Agadah, and Midrashic literature; mores and folkways of Jewish life in the "pale" and the development of such literature as the stories of Chelm and Sholem Aleichem. Analysis of modern American and Israeli literature and effect of Jewish folklore on such writers as Malamud, Roth, Agnon, Singer. All works studied are in English or English translation. Prerequisite: ENG 13.

ENG 81 Oriental Thought in Western Literature 3 rec 3 cr
An investigation of the ways in which Western writers, including Emerson, Thoreau, Whitman, Hesse, Ginsberg and Snyder, have incorporated Oriental thought in their works. Comparison of Oriental and Western thought. Readings in literature of India, China and Japan; attendance at museums, films, concerts and dance performances. Prerequisite: ENG 13.
HEALTH AND PHYSICAL EDUCATION

Chairman: Professor Michael Steuerman
Associate Professors: J. Katz, R. Kor, F. Wong
Assistant Professors: G. Constantine, C. Honda,
J. Juechter, A. Kelemen, I. Lewis, R. Salgado,
S. Schwartz, M. Wenzel, J. Whelan
Lecturers: J. Bloom, E. Duval, D. Murphy, H.
Skinner, M. Stern, A. Stitt

A medical examination is required every two years on the College Medical form which can be secured in any of the Health Service offices. 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.

<table>
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<tr>
<th>Course</th>
<th>Description</th>
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<tr>
<td>PEA 11</td>
<td>Elementary 2 gym 1 cr&lt;br&gt;Gymnastics and Body Conditioning (Men and Women)&lt;br&gt;Introductory gymnastic and body conditioning course designed to apprise students of their present level of fitness and to provide opportunities for self-improvement, using resistance exercises and elementary gymnastic skills.</td>
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<tr>
<td>PEA 21</td>
<td>Fundamentals of 2 pool 1 cr&lt;br&gt;Swimming (Men and Women)&lt;br&gt;Basic water safety skills and knowledge to make an individual reasonably safe while in, on, or about the water. Registration limited to non-swimmers.</td>
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<tr>
<td>PEA 22</td>
<td>Intermediate Swimming 2 pool 1 cr&lt;br&gt;(Coeducational)&lt;br&gt;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: Ability to swim 25 yards.</td>
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<tr>
<td>PEA 23</td>
<td>Senior Life Saving and Water Safety (Coeducational)&lt;br&gt;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: Ability to swim 200 yards, employing the four basic styles of swimming.</td>
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PEA 24  Synchronized Swimming (Coeducational)  2 pool 1 cr
Basic techniques of synchronized swimming; includes modified swimming strokes, fundamental sculling movement, basic stunts, figures, and pattern formations, the understanding and appreciation of music and musical accompaniment leading to formation of a musical routine. Prerequisite: Ability to swim 25 yards.

PEA 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 basic 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.

PEA 31  Fundamentals of Volleyball and Basketball (Men and Women)  2 gym 1 cr
Basketball—Basic skills of passing, dribbling, shooting, rebounding, post play, zone defense, zone press and patterns of team play in order to more fully appreciate the game.
Volleyball—Fundamentals of passing, serving, spiking, blocking, offense and defense.
PEA 32 Golf and Tennis 2 gym 1 cr
(Coeducational)
Spring: Tennis—Fundamentals of the
forehand stroke, backhand stroke,
serve, and gain strategy.
Golf—Fundamentals of golf, grip,
stance, swing, woods, irons, putting,
chipping and pitching, rules and golf
etiquette.

PEA 33 Tennis I 2 gym 1 cr
The development of more intensive
techniques in tennis including fore­
hand drive, backhand stroke, volley,
lob, overhead smash and chop, in­
cluding singles and doubles strategy.

PEA 34 Golf I 2 rec 1 cr
(coeducational)
Grip, stances, swing, woods, irons,
chipping, pitching, putting, rules, and
etiquette. Students should expect to
spend approximately $5.00 to cover the
cost of one required round of golf.

PEA 35 Bowling I 2 rec 1 cr
(coeducational)
Basic skills, different types of delivery,
bowling errors and corrections. Stu­
dents should expect to spend approxi­
mately $6.00 to cover the cost of bowl­
ing.

PEA 41 Techniques of Modern 2 gym 1 cr
Dance I (Coeducational)
Basic skills of modern dance; develop­
ment of physical strength, flexibility,
endurance, and freedom of move­
ment. Explorations and improvisations
leading to basic choreographic skills
and appreciation of dance as a means
of self expression and communication.

PEA 42 Techniques of Modern 2 gym 1 cr
Dance II (Coeducational)
Advanced beginning and intermediate
techniques of movement. Elements of
compositional form, and the develop­
ment and execution of compositional
studies. Prerequisite: PEA 41 and/or
permission of instructor.

PEA 45 Dance Skills, and Sports 2 gym 1 cr
Activities (Coeducational)
Skills and techniques in folk and square
dance, and bowling.

PEA 46 African and Puerto 1 rec 2 lab 2 cr
Rican Dance (Coeducational)
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.
**PEA 81 Techniques of Self-Defense (Coeducational)**

Introduction to the skills and techniques of martial arts; judo, karate, jiu-jitsu and aikido for the purpose of understanding their value for self-defense.

**HLT 91 Critical Issues in Health**

This course is intended to develop and encourage critical judgment in three vital areas of health: mental health, addictions and dependencies, human sexuality.

**HLT 93 Human Sexuality**

Consideration of physical, sociological, and psychological aspects of human sexuality with emphasis on the development of critical judgment in dealing with ethical controversies. Prerequisite: HLT 91.

**HLT 95 Program Planning and Leadership in Recreation**

Survey of community agencies providing recreational opportunities. View of program areas associated with recreation, with attention to the recreation interests and needs of participants. Leadership application and practical knowledge of group situations. Corequisite: ENG 13.

**HLT 97 Field Work in Community Health Resources**

Course provides student with firsthand knowledge of the community, its health problems, and the forces operating on them. It offers a unique opportunity for students who want to become involved in solving community problems. Prerequisite: HLT 91 and/or permission of instructor.
HISTORY

Chairman: Professor Mark D. Hirsch
Professors: S. Ehrenpreis, J. Twersky, J. Wieczorezak
Associate Professors: N. Bindler, E. Cooper, B. Eisenberg, D. Felix, G. Lankevich, T. Moehs, W. Sokolsky
Assistant Professors: V. Bonnelli, G. Diallo, J. Ryan, D. Siebert
Lecturers: J. Avramoff, S. Miranda

Prerequisite for History 11 or History 12: Any student required to take English 01 and/or any RDL (Remedial Reading) courses must successfully complete those courses before enrolling in History 11 or 12.

HIS 11 History of Western Civilization I
Western civilization from ancient times to the eighteenth century. Economic, political, social, and intellectual development chosen to describe and analyze forces that have shaped the present.

HIS 12 History of Western Civilization II
Outstanding political, intellectual, philosophical and economic trends, movements and events from the Age of Reason to modern times in Western civilization. An analysis of forces that have shaped the present.

HIS 15 Intellectual and Social History of Modern Europe
Effects of major ideas in Western society from the 18th Century in their political and cultural context. The revolutionary dynamic in democracy, romanticism and conservatism, changing situation of religion, role of women in modern society, socialism in 19th and communism in 20th centuries, interaction between philosophy and politics extending from idealism to existentialism, class conflict and social stability, racism and egalitarianism, scientism and irrationalism. Prerequisite: HIS 11 or 12.

HIS 21 American History I
(1492-1865)
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 or 12.

HIS 22 American History 2
(1865 to present)
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 or 12.
HIS 23  Social and Intellectual History of Modern America
Study of fundamental concepts of the American experience that permeate our lives today, including puritanism, class consciousness, prejudice, violence, feminism, pragmatism. Prerequisite: HIS 11 or 12.

HIS 24  The History of American Foreign Relations
Major developments in the foreign relations of the U.S., from the American Revolution to Vietnam, and their domestic and international effects. Emphasis on the policies of this century; evolution of the republic into a world power and the consequent tensions and crises. Origins and progress of efforts at international cooperation and peace. Prerequisites: HIS 11 or 12.

HIS 25  The Third World and the West: History of Modern Imperialism and Colonialism
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; the rise of Soviet and Communist Chinese imperialism. Prerequisite: HIS 11 or 12.

HIS 27  Modern History of the Far East
China, Japan and Korea in the modern period; political and cultural institutions; structure of oriental societies; advances of the West and the effects of imperialism; industrialism, agrarian reforms; Communism; problems of the post-World War II period. Prerequisite: HIS 11 or 12.

HIS 31  Modern Latin American History
Historical development of the Latin American area through the nineteenth and twentieth centuries. Prerequisite: HIS 11 or 12.

HIS 34  History of Science and Technology
Major developments in science and technology in the Western world and their impact on man and society; Growth and interaction of science and technology from the dawn of civilization to present day. Prerequisite: HIS 11 or 12.

HIS 35  History of Africa
Multi-discipline approach to a history of Africa; ancient and medieval Africa societies, the era of slavery, geographic discovery, missionary contact, imperialism and the emergence of modern nationalism. The era of independence. Prerequisite: HIS 11 or 12.

HIS 36  The History of Modern Russia
The history, culture, and economic and social development of Russia in modern times, with some emphasis on Russia's relations with her neighbors in Eastern Europe. Prerequisite: HIS 11 or 12.
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; Black education, church and arts; writing of Black Americans including Frederick Douglass and Franklin Frazier. Prerequisite: HIS 11 or 12.

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 Spanish discovery to present. Emphasis on Puerto Rican contributions to culture and society of the Caribbean area and the United States. Prerequisite: HIS 11 or 12.

HIS 40 Modern History of the Jewish People 3 rec 3 cr
Brief introductory survey of ancient Israel, and the Jewish people under Christian and Islamic rule during Middle Ages; concentration on modern Jewish history from era of Enlightenment and the French Revolution through developments of the 20th century (including growth of the Zionist ideal, the Holocaust, and the birth and development of Israel through the Six-Day War of 1967).

HIS 50 American Urban History 3 rec 3 cr
America began as an urban nation, became rural, and now is predominately urban. Course examines various American cities, and considers issues that modern communities must surmount to survive this century. Prerequisite: HIS 11 or 12.

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 11 or 12.

INTERDISCIPLINARY INDEPENDENT STUDY

Coordinator: Prof. Helen Rosenfeld

INT 11 Interdisciplinary Independent Study 1-3 cr
Designed for students who wish to participate in an interdisciplinary project of their own planning. Supervised projects and studies will combine subject areas. Students will arrange their own activities and/or agency involvements in cooperation with the course coordinator. Seminars and individual conferences will be included as appropriate. The student is allowed a maximum of 6 credits throughout stay at BCC (30 hours of work = 1 credit). This course is for elective credits only and may not be substituted for a specific course requirement nor to meet distribution requirements. Prerequisite: Successful completion of 30 college credits or special permission of the course coordinator.
The zero level courses are taken for no credit and are remedial or compensatory in nature. They are designed for students who lack the preparation necessary to enter the college level mathematics courses. MTH 05 and 06 are sequential. MTH 08 is for students in the Nursing program who are unable to pass an examination administered by the Mathematics Department.

MTH 05 Basic Concepts of Mathematics I 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 II 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. Prerequisite: MTH 05 or two years of high school mathematics including algebra and geometry.

MTH 08 Fundamental Concepts and Skills in Arithmetic and Algebra 3 rec 0 cr
Basic operations in arithmetic, verbal problems whose solutions involve arithmetic processes, generalizations of the principles of arithmetic leading to the fundamental concepts of algebra, algebraic operations, polynomials; exponents and logarithms, and problems involving algebraic solutions.

Any course numbered 11 through 18 is, with some modification, recommended only for those students enrolled in two-year career programs. MTH 11 and MTH 16 are not recommended for transfer curricula, and will not be accepted for credit in the liberal arts curricula.

MTH 11 Topics in 11th Year Mathematics I 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; progression; probability and statistics. Not recommended toward transfer degrees and not acceptable for credit in the Liberal Arts curricula. Prerequisite: 1 year of high school algebra.

MTH 16 Topics in 11th Year Mathematics II 4 rec 2 cr
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. Not recommended for transfer degrees. MTH 16 is not acceptable for credit in the Liberal Arts curricula. Prerequisite: Intermediate Algebra, MTH 11 or MTH 06.

MTH 17 College Algebra 4 rec 4 cr
Determinants and systems of equations, complex numbers, DeMoivre's theorem, theory of equations, logarithms, exponents, radicals; introduction to analytic geometry and calculus. Prerequisite: Trigonometry or MTH 16.
### Mathematics Course Sequence

**HIGH SCHOOL PREPARATION**

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

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<tbody>
<tr>
<td>1. Business Career</td>
<td>MTH 11</td>
<td>MTH 11</td>
<td>MTH 16</td>
<td>MTH 30</td>
</tr>
<tr>
<td>2. Chemical Technology</td>
<td>MTH 05, 11, 16</td>
<td>MTH 11, 16</td>
<td>MTH 16, 17</td>
<td>MTH 17, 18</td>
</tr>
<tr>
<td>Plastics Technology</td>
<td></td>
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<tr>
<td>3. Data Processing</td>
<td>MTH 11, 21</td>
<td>MTH 11, 21</td>
<td>MTH 16, 21</td>
<td>MTH 17, 21</td>
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<tr>
<td>4. Electrical Technology</td>
<td>MTH 05, 06, 17, 18</td>
<td>MTH 06, 17, 18</td>
<td>MTH 16, 17, 18</td>
<td>MTH 17, 18</td>
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<tr>
<td>5. Mechanical Technology</td>
<td>MTH 05, 06, 17</td>
<td>MTH 06, 17</td>
<td>MTH 16, 17</td>
<td>MTH 17, 18</td>
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<tr>
<td>6. Medic. Lab. Technology</td>
<td>MTH 05, 06, 17, 18</td>
<td>MTH 06, 17, 18</td>
<td>MTH 16, 17</td>
<td>MTH 17, 18</td>
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<tr>
<td>7. Business Admin. Transfer</td>
<td>MTH 05, 06, 30</td>
<td>MTH 06, 30</td>
<td>MTH 06, 30</td>
<td>MTH 30</td>
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<tr>
<td>(Baruch, Lehman, Hunter)</td>
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<td>8. Business Education Transfer (Hunter)</td>
<td>MTH 05, 06, 21</td>
<td>MTH 06, 21</td>
<td>MTH 06, 21</td>
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<tr>
<td>9. Chemistry, Biology</td>
<td>MTH 05, 06, 30, 31, 32</td>
<td>MTH 06, 30, 31,</td>
<td>MTH 30, 31, 32</td>
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<tr>
<td>10. Medicine, Dentistry</td>
<td>MTH 05, 06, 30, 31</td>
<td>MTH 06, 30, 31</td>
<td>MTH 30, 31</td>
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</tr>
<tr>
<td>11. Engineering</td>
<td>MTH 05, 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></td>
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<tr>
<td>Mathematics, Physics, Computer Science</td>
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<tr>
<td>12. Elem. School Education</td>
<td>MTH 05, 06, 21, 22</td>
<td>MTH 06, 21, 22</td>
<td>MTH 06, 21, 22</td>
<td>MTH 21, 22</td>
</tr>
<tr>
<td>13. Music</td>
<td>MTH 11</td>
<td>MTH 11</td>
<td>MTH 16</td>
<td>MTH 21</td>
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<tr>
<td>14. Pre-Pharmacy</td>
<td>MTH 05, 06, 17, 18</td>
<td>MTH 06, 17, 18</td>
<td>MTH 06, 17, 18</td>
<td>MTH 17, 18</td>
</tr>
<tr>
<td>15. Humanities-Soc. Sciences Art</td>
<td>MTH 05, 06, 21, 23</td>
<td>MTH 06, 21, 23</td>
<td>MTH 06, 21, 23</td>
<td>MTH 21, 23</td>
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<tr>
<td>16. Education Associate</td>
<td>MTH 05, 06, 21</td>
<td>MTH 06, 21</td>
<td>MTH 06, 21</td>
<td>MTH 21</td>
</tr>
<tr>
<td>17. Secretarial Studies</td>
<td>MTH 11</td>
<td>MTH 11</td>
<td>MTH 11</td>
<td>MTH 21</td>
</tr>
<tr>
<td>18. Secretarial Teaching</td>
<td>MTH 06, 21</td>
<td>MTH 06, 21</td>
<td>MTH 06, 21</td>
<td>MTH 21</td>
</tr>
</tbody>
</table>

Students with less than two years of high school mathematics preparation should contact the College's Department of Mathematics for course sequence.

Note: MTH 11 and 16 are not recommended toward transfer degrees, and will not be accepted for credit in the Liberal Arts curricula.
MTH 18 Introduction to Mathematical Analysis
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. Prerequisite: MTH 17 or equivalent.

MTH 21, 22, and 23 are non-sequential, self-contained courses primarily for liberal arts students enrolled in non-science transfer programs. MTH 21 is recommended for prospective elementary school teachers and data processing students. MTH 22 is recommended as a core requirement for liberal arts students in the humanities such as English, history, and languages; and as an elective for students in other curricula. MTH 23 is recommended for students in the social sciences such as economics, political science, psychology, and sociology.

MTH 21 Survey of Mathematics I
Designed for non-science liberal arts students. Emphasis on key concept 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 22 Survey of Mathematics II
Introduction to geometry, networks, topology, algebra, graphs, functions, linear programming, permutations, combinations, probability, logic, euclidean, non-euclidean, projective finite, and coordinate geometries. Prerequisite: MTH 06 or trigonometry.

MTH 23 Probability and Statistics
Permutations, combinations probability, sets, finite sample spaces, probabilities as areas, the normal distribution, central limit theorem. Prerequisite: Trigonometry or MTH 06.
MTH 30 through 35 are designed for students majoring in mathematics, physics, biology, chemistry, engineering science, computer science, medicine, and dentistry; and is recommended for those in other curricula with advanced preparation.

MTH 30 Pre-Calculus Mathematics 4 rec 4 cr
Sets, relations, function concept, special functions, rational and irrational functions, binomial theorem, complex numbers, trigonometric functions, mathematical induction. Prerequisite: MTH 06 or trigonometry.

MTH 31 Analytic Geometry and Calculus I 4 rec 4 cr
Limits, rates of change, differentiation and anti-differentiation of algebraic functions, applications, integrals, conic sections, curve sketching. For Engineering Science students or for Liberal Arts and Sciences students planning to major in mathematics or physical science. Prerequisite: MTH 30 or equivalent.

MTH 32 Analytic Geometry and Calculus II 5 rec 5 cr
Differentiation and integration of transcendental functions, hyperbolic functions, applications of the definite integral; parametric equations, theorem of mean value, polar coordinates. Prerequisite: MTH 31.

MTH 33 Analytic Geometry and Calculus III 5 rec 5 cr
Vectors, applications of vectors to analytic geometry and calculus, partial differentiation, multiple integrals, volumes and surface area, infinite series, applications. Prerequisite: MTH 32.

MTH 34 Differential Equations and Selected Topics in Advanced Calculus 4 rec 4 cr
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, damped and forced vibrations, Laplace transform. Prerequisite: MTH 33.

MTH 35 Selected Topics in Advanced Calculus and Linear Algebra 4 rec 4 cr
Matrices, introduction to linear algebra and vector analysis, integral theorems of Gauss, Green and Stokes, applications. Prerequisite or corequisite: MTH 34.

Mathematics courses in the 40 series are required for those students majoring in computer science but may be taken for elective credit by students in liberal arts curricula.

MTH 45 Discrete Mathematical Systems 3 rec 3 cr
Elements of discrete mathematical systems pertinent to computer science. Sets, relations, functions, binary operations. Finite induction, Boolean algebra, number systems. Elements of propositional calculus. Elementary combinatorial analysis. Prerequisite: MTH 31.
## MODERN LANGUAGES

Chairman: Professor Charles R. Monticone  
Professors: J. D'Andrea, D. McCulloch, J. Sztacho, H. Winterfeldt  
Associate Professors: R. Bernand, P. Lalli  
Lecturers: C. Alvarado, A. Resto, I. Taylor

### French

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRN 11</td>
<td>Elementary French I</td>
<td>4 rec 4 α</td>
<td>Pronunciation; language structure; reading and translation of simple texts; dictation. Emphasis on conversation. Audio-laboratory practice.</td>
</tr>
<tr>
<td>FRN 12</td>
<td>Elementary French II</td>
<td>4 rec 4 α</td>
<td>Continuation of FRN 11 with emphasis on the conversational phase of French. Prerequisite: FRN 11.</td>
</tr>
<tr>
<td>FRN 13</td>
<td>Intermediate French</td>
<td>4 rec 4 α</td>
<td>Advanced language structures, reading; translation and oral discussion of modern texts; composition; dictation. Emphasis will be on conversation. Prerequisite: FRN 12.</td>
</tr>
<tr>
<td>FRN 15</td>
<td>Elementary French Conversation I</td>
<td>4 rec 4 α</td>
<td>Intensive conversation course emphasizing practical and realistic everyday situations. Fundamentals of the language are the basis for drilling in practical use of the language. Use of Audio-Lab required.</td>
</tr>
<tr>
<td>FRN 16</td>
<td>Elementary French Conversation II</td>
<td>4 rec 4 α</td>
<td>Continuation of FRN 15. Students participate in dialogue involving practical everyday situations in order to improve conversational skill. Use of Audio-Lab required. Prerequisite: FRN 15.</td>
</tr>
<tr>
<td>FRN 21</td>
<td>College French I</td>
<td>4 rec 4 α</td>
<td>Review of language structures; conversations; oral reports; composition and analysis based on reading and interpretation of literary masterpieces. Prerequisites: FRN 13.</td>
</tr>
</tbody>
</table>
FRN 22 **College French II**  
*4 rec 4 cr*

FRN 23 **College French III**  
*3 rec 3 cr*
 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. *Prerequisite: FRN 22.*

FRN 24 **College French IV**  
*3 rec 3 cr*
Reading, oral discussion, reports, literary analysis of works or representative French authors from the Romantic period to the present. *Prerequisite: FRN 23, or FRN 22 with permission of the department.*

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**German**

GER 11 **Elementary German I**  
*4 rec 4 cr*
Pronunciation; language structure; reading and translation of simple texts; dictation; conversation. Audio-laboratory practice.

GER 12 **Elementary German II**  
*4 rec 4 cr*
Continuation of GER 11 with emphasis on the conversational phase of German. *Prerequisite: GER 11.*

GER 13 **Intermediate German**  
*4 rec 4 cr*
Advanced language structures; reading; translation and oral discussion of modern texts; composition; dictation. Emphasis will be on conversation. *Prerequisite: GER 12.*

GER 21 **College German I**  
*4 rec 4 cr*
Review of language structure; discussion; literary analysis, oral reports and composition based on a text treating historical development of the German people and its literary movements; simplified excerpts from works by German 18th century authors. *Prerequisite: GER 13.*

GER 22 **College German II**  
*4 rec 4 cr*
Continuation of GER 21. Reading, oral discussion in German, literary analysis and composition based on texts containing excerpts of authors of the two Golden Ages of German literature: the Middle High German period (Volksepos, Hofisches, Epos and Minnesang), and authors such as Klopstock, Weiland, Lessing, Goethe and Schiller. *Prerequisite: GER 21.*
### GER 23  College German III  3 rec 3 cr
18th Century German literature; reading, translation, literary analysis, discussions and compositions based on the writings of various 18th century authors, with special emphasis on Lessing’s Nathan der Weise, Goethe’s Faust (Part I), and Schiller’s Don Carlos. **Prerequisite:** GER 22.

### GER 24  College German IV  3 rec 3 cr
Reading, translation, oral discussion and analysis of selections from 19th century German literature. Works of authors such as Heinrich von Kleist, Heinrich Heine, Franz Grillparzer, Adalbert Stifter, Friedrich Hebeel and Theodor Storm will be covered. **Prerequisite:** GER 23.

### Hebrew

#### HEB 11  Elementary Hebrew I  4 rec 4 cr
Aim is to familiarize the student with the sounds of the language. Basic structural aspects of Hebrew are covered; simple texts are read, discussed and translated to form the basis for conversation. Dictation to train the student’s ear for the new sounds and also to understand the spoken word.

#### HEB 12  Elementary Hebrew II  4 rec 4 cr
Continuation of HEB I. More advanced structural points; dictations and readings covering more difficult material; students will take a more active part in daily conversations. **Prerequisite:** HEB I.

### Italian

#### ITL 11  Elementary Italian I  4 rec 4 cr
Pronunciation; language structure; conversation; reading of simple texts; dictation. Audio-laboratory practice.

#### ITL 12  Elementary Italian II  4 rec 4 cr
Continuation of ITL 11. Language structure; conversation; reading of elementary library texts; dictation. **Prerequisite:** ITL 11.

#### ITL 13  Intermediate Italian  4 rec 4 cr
Advanced language structures; conversation; reading; translation and oral discussion of modern texts; composition. **Prerequisite:** ITL 12.

#### ITL 15  Elementary Italian Conversation I  4 rec 4 cr
Intensive conversation course emphasizing practical and relevant everyday situations. Fundamental language structures are used as a basis for drilling in oral use and understanding of the language. Use of Audio-Lab required.

#### ITL 16  Elementary Italian Conversation II  4 rec 4 cr
Continuation of ITL 15. Students participate in dialogues involving practical everyday situations to improve conversational and comprehension skills. Use of Audio-Lab required. **Prerequisite:** ITL 15 or approval of instructor.

#### ITL 21  College Italian I  4 rec 4 cr
Review of language structures; conversation; oral reports; composition and oral analysis of literary texts in Italian. **Prerequisite:** ITL 13.
Russian

**RUS 11**  
*Elementary Russian I*  
4 rec 4 cr  
Pronunciation; elements of grammar; reading and translation of simple texts; dictation; simple conversation.  
Prerequisite: ITL 21.

**RUS 12**  
*Elementary Russian II*  
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 I*  
4 rec 4 cr  
Review of grammar; conversation; oral reports, composition and analysis based on reading and interpretation of literary masterpieces. Audio-laboratory practice.  
Prerequisite: RUS 13.

**ITL 22**  
*College Italian II*  
4 rec 4 cr  
Readings in Modern Italian. An introduction to modern authors, Italian prosody and a survey of the masterpieces of Italian poetry of all ages. Literary analysis and interpretation. This course is taught in Italian.  
Prerequisite: ITL 21.

**ITL 23**  
*College Italian III*  
3 rec 3 cr  
Introduction to Dante’s *Divina Commedia*. Reading, oral discussion and reports in Italian; literary analysis of selected passages from the *Inferno*, *Purgatorio*, and *Paradiso*. The course is taught in Italian.  
Prerequisite: ITL 22.

**LAN 11**  
*French, German, and Italian Diction*  
2 rec 2 cr  
Fundamentals of French, German, and Italian phonetics, articulation, and pronunciation as applied to the art song, and operatic literature. The texts will be examined, translated, and interpreted in conjunction with their music. An elective course, primarily for vocal majors. Some performance in class may be required. May not be used to fulfill modern language requirement.
<table>
<thead>
<tr>
<th>High School Language</th>
<th>Placement Results</th>
<th>LIBERAL ARTS TRANSFER</th>
<th>MUSIC</th>
<th>BUSINESS TRANSFER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student elects to continue language studied in high school</td>
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<tr>
<td>3 Years</td>
<td>21 or above</td>
<td>21 or above</td>
<td>21 or above</td>
<td>No placement</td>
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<td>13</td>
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<td>13</td>
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<td>12</td>
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<td>12, 13</td>
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<td>11, 12, 13</td>
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<td>11, 12, 13</td>
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<tr>
<td>2 Years</td>
<td>21 or above</td>
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<td>12, 13</td>
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<td>11, 12, 13</td>
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<td>11, 12, 13</td>
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<tr>
<td></td>
<td>or 15, 16, 17</td>
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<td>15, 16, 17</td>
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<tr>
<td>1 Year</td>
<td>21 or above</td>
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<td></td>
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<td>11, 12, 13</td>
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<td>11, 12, 13</td>
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</tr>
<tr>
<td></td>
<td>or 15, 16, 17</td>
<td></td>
<td>15, 16, 17</td>
<td></td>
</tr>
</tbody>
</table>

Student studied language 2 or 3 years in high school but elects to start new language:

- 11, 12, 13
- or 15, 16

Student studied language 1 year in high school but elects to start new language:

- 11, 12, 13
- or 15, 16
ARTS AND SCIENCES CURRICULA

Students who have completed four years of one language or three years of one language and one year of another in high school are exempt from placement examinations and/or further requirement.

All Liberal Arts students (A.A. & A.A. History Option) who have completed three years of language in high school must take placement examinations and demonstrate third year proficiency in order to satisfy the language requirement. History Option requires 3 semesters of language.

All students in A.S. Options, Music and Business Transfer curricula who have 2 years of high school language must take a placement test and qualify for Language 13 in order to fulfill the language requirements of their curriculum.

All other Liberal Arts students (A.A. Options except History; A.S. and A.S. Options) who have completed 2 years of language in high school must take placement examinations and qualify for Language 13 in order to satisfy the language requirement.

History Option requires 3 semesters of language.

Students must elect a sequence—11, 12, 13 or 15, 16, 17 (Conversational Language). Hunter, Lehman and City College will not accept 15, 16, 17 to fulfill the core requirement in language.

At the present time, conversational language is accepted only by Baruch to meet both core requirement and elective credit. All units of City University, of course, grant elective credit for the conversational courses.

Students who enter BCC with the language requirement fulfilled may enroll in 15, 16 or 17 for elective credit.

Potential language majors should not take 15, 16, 17.

It is strongly recommended that A.S. and A.A. options complete through Language 13.

Students who place at the level of 21 or above are exempt from further language requirement. Such students, however, are strongly advised to consult the requirements of the Senior College to which they wish to transfer.

BUSINESS CURRICULA

Although the requirement for Business Teaching is shown for the 11, 12 sequence, because some senior colleges recommend conversational language, it is essential that the express requirements of the college to which the student wishes to transfer be consulted before the student elects the 11, 12 sequence.

Business Administration and Business Teaching students who have completed three years in high school do not have to take placement examinations and have no further requirement. Business Administration students with one or two years of high school language also do not need placement examinations, but are required to take Language 15 and 16 or 11 and 12.

All Foreign Language Courses at BCC Carry College Credit
## Spanish

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPN 11</td>
<td>Elementary Spanish I</td>
<td>4 cr</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pronunciation; language structure;</td>
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<tr>
<td></td>
<td>conversation and reading of simple</td>
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<td></td>
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<td></td>
<td>texts; dictation. Audio-laboratory</td>
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<tr>
<td></td>
<td>practice.</td>
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</tr>
<tr>
<td>SPN 12</td>
<td>Elementary Spanish II</td>
<td>4 cr</td>
<td>SPN 11</td>
</tr>
<tr>
<td></td>
<td>Continuation of SPN 11. Language</td>
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<tr>
<td></td>
<td>structure; conversation; reading</td>
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<td></td>
<td>of elementary literary texts;</td>
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<td></td>
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<tr>
<td></td>
<td>dictation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPN 13</td>
<td>Intermediate Spanish</td>
<td>4 cr</td>
<td>SPN 12</td>
</tr>
<tr>
<td></td>
<td>Advanced language structures;</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>conversation; reading, translation</td>
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<tr>
<td></td>
<td>and oral discussion of modern texts; composition. Prerequisite: SPN 12.</td>
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</tr>
<tr>
<td>SPN 15</td>
<td>Elementary Spanish Conversation</td>
<td>4 cr</td>
<td>SPN 12</td>
</tr>
<tr>
<td></td>
<td>Intensive conversation course</td>
<td></td>
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<tr>
<td></td>
<td>emphasizing practical and realistic situations. Use of Audio-Lab required.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPN 16</td>
<td>Intermediate Spanish Conversation</td>
<td>4 cr</td>
<td>SPN 15</td>
</tr>
<tr>
<td></td>
<td>Continuation of SPN 15. Participation in dialogues involving practical situations to improve conversational skill. Use of Audio-Lab required. Prerequisite: SPN 15.</td>
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</tr>
</tbody>
</table>
SPN 17 Advanced Spanish Conversation
Continuation of SPN 16. Students participate in dialogues and conversations related to contemporary problems and everyday situations to further improve conversational skill. Prerequisite: SPN 16 or department approval.

SPN 21 College Spanish I

SPN 22 College Spanish II

SPN 23 College Spanish III
Nineteenth century Spanish literature. Literary analysis of selections from representative Spanish authors. Oral discussion and reports. Outside readings to be assigned. Course conducted in Spanish. Prerequisite: SPN 22.

SPN 24 College Spanish IV
Cervantes' novel Don Quijote. Reading, discussion, analysis and written reports on selections from the original text. Selections from Cervantes' Novela Ejemplares. Course conducted in Spanish. Prerequisite: SPN 23.

SPN 25 College Spanish V
Generation of '98. Literary analysis of selections from the principal writers of the movement. Reading, discussion, oral and written reports. Outside readings will be assigned and discussed in class. Course conducted in Spanish. Prerequisite: SPN 24.

SPN 30 Puerto Rican Literature and Culture I
A survey of Puerto Rican history, culture and literature to 1880. Reading, discussion, oral and written reports based on representative Puerto Rican authors. The course is conducted in Spanish. Prerequisite: SPN 13.

SPN 31 Puerto Rican Literature and Culture II
A continuation of SPN 30. A survey of Puerto Rican history, culture and literature from 1880 to the present. Reading, discussion, oral and written reports based on representative Puerto Rican authors. The course is conducted in Spanish. Prerequisite: SPN 30 or permission of the Department.
MUSIC AND ART

Chairman: Professor Marvin Salzberg
Professor: F. Heinz
Associate Professors: J. N. Hill, L. Simon
Assistant Professors: R. Bass, N. Canton, V. Capers, J. D'Angelo, S. Eversole, J. Hamell, R. Harkins, P. Schira, H. Vogel
Lecturers: G. Dragonetti, E. Kissel, J. Magaziner, F. Sharpe

Music or Art requirements for all curricula may be satisfied by any course or combination of courses in Art and/or Music for which the student is qualified.

Art

ART 10 Art Survey
Survey of our artistic heritage beginning with the Classical periods of Western Civilization, including African and Pre-Columbian art forms and their influences on the development of modern art. (Note: Not open to students taking ART 11 or 12.)

ART 11 Introduction to Art
Survey of art in several historical periods of Western civilization. Discussion of aesthetic, social and philosophical influences. Art museum visits. Creative studio experiences.

ART 12 Introduction to Art, with emphasis on Non-Western Cultures
Survey of art in the diverse European, African and Latin American societies, and their interaction. Consideration of art as an integral part of each society through lectures, films, museum visits and special projects, including creative studio work. (May be taken in fulfillment of the Art 11 requirement.)

ART 15 Design
Fundamentals of two- and three-dimensional design as applied to different art forms.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 21</td>
<td>Drawing and Painting I</td>
<td>4</td>
<td>Development of basic skills in drawing and painting. Use of such media as crayon, charcoal, and pen-and-ink; tempera, watercolor, and oil. Visits to art museums.</td>
</tr>
<tr>
<td>ART 22</td>
<td>Drawing and Painting II</td>
<td>4</td>
<td>Continuation of Art 21.</td>
</tr>
<tr>
<td>ART 31</td>
<td>Graphic Arts I</td>
<td>4</td>
<td>Print-making techniques of linoleum and woodcut, etching, silkscreen, and lithography. Encouragement of individual experimentation in selected graphic media. Visits to graphic arts exhibitions.</td>
</tr>
<tr>
<td>ART 32</td>
<td>Graphic Arts II</td>
<td>4</td>
<td>Continuation of Art 31.</td>
</tr>
<tr>
<td>ART 41</td>
<td>Crafts I</td>
<td>4</td>
<td>Fundamental techniques of pottery and ceramics, and related crafts such as metal enameling and jewelry. Emphasis on the development of good standards of design and craftsmanship. Visits to crafts exhibitions.</td>
</tr>
<tr>
<td>ART 42</td>
<td>Crafts II</td>
<td>4</td>
<td>Continuation of Art 41.</td>
</tr>
</tbody>
</table>
ART 51 Art of Africa and the Americas 3 rec 3 cr
Exploration of the art forms of West, Central and East Africa, and Pre-Columbian America. Discussion of impact of these cultures on the development of modern art, with attention to the humanistic traditions involved.

ART 52 Oriental Art 3 rec 3 cr
Emphasis on art of China and Japan from prehistoric period through the great Buddhist and dynastic styles in architecture, sculpture, pottery, painting and calligraphy.

ART 55 Modern Art 3 rec 3 cr
European and American painting from Impressionism to the present. Development of modern architecture and sculpture.

ART 61 Art as a Human Value 2 rec 2 cr
Study of aesthetics and the significance of art to the individual.

ART 71 Photography I 4 rec 2 cr
Basic photographic techniques as a creative medium; emphasis on good composition and lighting; developing, printing and enlarging. Students must provide their own cameras.

ART 72 Photography II 4 rec 2 cr
Workshop course with creative experimentation through studio and field assignments. Student is encouraged to develop his own study program and specialization in consultation with the instructor. Opportunity to show work in selected exhibitions. Prerequisite: ART 71, or permission of instructor.

Music

MUS 10 Music Survey 1 rec 1 cr
Introduction to the vast symphonic and chamber music literature; opera from Baroque to the contemporary period. Attendance at live concerts required.

MUS 11 Introduction to Music 3 rec 3 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 3 rec 3 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.
MUS 16 Introduction to Folk Music of the Americas
Study of folk music of the Americas based on the traditional music of the British Isles, Europe and Africa.

MUS 18 Introduction to Jazz
Study of jazz, its history and influence on twentieth century American culture. Outside readings; audio-laboratory work and attendance at live concerts required.

MUS 21, Choral Performance
The study and presentation of standard and contemporary choral literature for mixed voices. Choral training and performances at concerts, college ceremonies and functions. (Registration only with permission of department.

MUS 31, Orchestral Performance
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.) Registration only with permission of department.

MUS 37 Instrumental Class
Instruction in the Recorder
Basic instruction in playing a musical instrument, the recorder, for both solo and group use. No previous musical training necessary.

MUS 40 Fundamentals of Music
Basic reading skills, including treble and bass clefs, key signatures, major and minor scales, some elementary sight reading techniques, rhythms, simple harmony.

MUS 41 Theory I
MUS 42 Theory II
Study of diatonic harmony; chordal movement, harmonization of melodies and basses, realization of figured basses, and simple modulation. Compositions from traditional literature analyzed. Prerequisite: For MUS 41: MUS 40 or permission of department. For MUS 42: MUS 41.

MUS 43 Theory III
MUS 44 Theory IV
Study of chromatic and modal harmony; includes chordal movement, harmonization of melodies and basses, realization of figured basses, and chromatic modulations. Compositions from traditional literature analyzed. Prerequisite: For MUS 43: MUS 42; for MUS 44: MUS 43.
MUS 51 Ear Training I 2 rec 1 cr
MUS 52 Ear Training II 2 rec 1 cr
Development of ability to sing melodies at sight and to notate melodies and chords. Elementary sight singing and dictation. Prerequisite: For MUS 51: MUS 40 or permission of department. For MUS 52: MUS 51.

MUS 53 Ear Training III 2 rec 1 cr
MUS 54 Ear Training IV 2 rec 1 cr
Continuation of Ear Training I and II. Prerequisite: For MUS 53: MUS 52; for MUS 54: MUS 53.

MUS 61 Keyboard I 1 rec 1 cr
MUS 62 Keyboard II 1 rec 1 cr
Development of keyboard skills through study of intervals, diatonic and chromatic progressions, harmonization of melodies, and realization of figured basses. Prerequisite: Ability to read music. Non-music majors may register only with permission of department. Prerequisite: For MUS 61: MUS 52 or permission department; for MUS 62: MUS 61.

MUS 70 Class Piano for Beginners 1 rec 1 cr
Introduction to basic piano techniques, harmonization and transposition of simple melodies, sight-reading at the keyboard, simple accompanying techniques for folk songs, easy piano literature from all stylistic eras. Practice facilities available.

MUS 71 Secondary Piano I 1 rec 1 cr
MUS 72 Secondary Piano II 1 rec 1 cr
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).

MUS 81 Recital Performance 2 rec 1 cr
Study and performance of standard and contemporary music emphasizing recital techniques. Registration only with permission of department.

MUS 83, Private Instruction I, II, III, IV 2 cr
84,85,86 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. Open only to Music majors.

MUS 91 Instrumental Ensembles I 2 rec 1 cr
MUS 92 Instrumental Ensembles II 2 rec 1 cr
Study and performance of standard and contemporary chamber music. (Taken by all instrumentalists). Prerequisite for MUS 91: permission of instructor.

MUS 95 Chamber Chorus I 2 rec 1 cr
MUS 96 Chamber Chorus II 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.
**NUR 11 Nursing Technology I** 2 rec 2 lect 4 clin 4 cr
Fundamental nursing needs of patients and introduction to nursing skills. Clinical laboratory experience provided in general hospitals. Prerequisites: Remedial English, reading and math courses.

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

**NUR 13 Nursing Technology III** 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 IV** 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. Prerequisite: NUR 13.

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

**The minimum acceptable grade in the major of nursing in each semester will be the grade of C. Grades of D in NUR 11, 12, 13, and 14 must be repeated if the student wishes to receive a degree in Nursing. Grades of D may be repeated subject to the following conditions:

1. The course must be repeated before the next higher level course is taken.
2. Both grades received in the same course will be used to calculate the student's cumulative index.
3. The credit for said course may be applied only once toward graduation.
4. The student may repeat said course only once.
5. A student will be required to pay for all courses in excess of his degree requirements. Courses repeated under this regulation are to be considered in excess of degree requirements.

NURSING

Chairman: Professor Beatrice Perlmutter
Associate Professors: A. Fuller, J. Gardinier, A. Gotta, A. Jackson, V. Katz, A. Levey, C. Loftstedt, A. Pitman
Lecturers: P. Ducard, R. Morowitz
Astronomy

AST 11  Astronomy and 1 lect 2 rec 3 cr
Space Science
Elementary study of the solar system, stellar populations, structure of the universe, and other aspects of modern astronomy. Prerequisite: Elementary Algebra or MTH 05, and the equivalent of RDL 02, or, the permission of the department.

AST 12  Astronomy and 1 lect 2 rec
Space Science 2 lab 4 cr
Same as AST 11, but includes additional two-hour laboratory. Students who have received credit for AST 11 cannot receive credit for AST 12. Prerequisite: Same as AST 11.
Physics

PHY 01 Introduction to College Physics 4 rec 0 cr
Fundamental laws and principles of classical physics; vectors, Newton's Laws, conservation principles, laws of thermodynamics. (Required for Engineering Science and Physics majors who have not had high school physics.) Students should have completed the equivalent of Intermediate Algebra or MTH 06, or be enrolled in MTH 06 concurrently.

PHY 11 College Physics I 2 lect 1 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 06 or MTH 11.

PHY 12 College Physics II 2 lect 1 rec 2 lab 4 cr
Electricity and magnetism, light, selected topics in modern atomic and nuclear physics. Prerequisite: PHY 11.

PHY 15 Ideas of Contemporary Physics 3 rec 2 lab 4 cr
A non-mathematical study of contemporary physics for non-science majors; theories of relativity, wave mechanics and quantum theory, fundamental particles, solid state physics, high energy physics, laser optics, gravity waves, radio and x-ray astronomy. Prerequisite: RDL 02, MTH 06 or equivalent.

PHY 21 Physics for Engineering Technology I 2 lect 1 rec 2 lab 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 06 or MTH 11.
PHY 22 Physics for Engineering Technology II
Fluid dynamics, thermodynamics, electricity and magnetism, optics, applied nuclear technology. Prerequisite: PHY 21.

PHY 24 Technical Physics
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 Plastics Technology students only.

PHY 31 Physics I*
Statics and dynamics of particles and rigid bodies; force and motion; energy and momentum; rotational motion; elasticity and simple harmonic motion. First semester of a three-semester sequence for students in Engineering Science, PHY 31, 32 and 33. Also recommended for science or mathematics majors in a Liberal Arts and Sciences Transfer program. Corequisite: MTH 31.

PHY 32 Physics II
Hydrostatics and hydrodynamics; properties of gases; thermodynamics and kinetic theory of matter; wave motion, sound; electrostatics. PHY 32 is the second semester of three-semester sequence for engineering science, physical science or mathematics majors. Prerequisite: PHY 31; co-requisite: MTH 32.

* Students who have passed PHY 01 or taken high school physics may register for PHY 31 with a corequisite of MTH 30 with permission of the Physics Department chairman.
PHY 33  Physics III  2 lect 1 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. Prerequisites or corequisites: PHY 33; MTH 33.

PHY 40  Physics of Photography and Optics  3 rec 3 cr
The physical nature of light, optics, photochemistry will be discussed with the aim of acquainting students with principles of photography and optics. Access to a camera with a variable shutter, diaphragm and interchangeable optical systems is provided. Prerequisite: MTH 05.

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; radioactive 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. Required for students in Engineering Science.
SECRETARIAL STUDIES

Chairman: Professor Kazuye Takei
Associate Professors: B. Ettinger, R. Fugazzi, C. Linn
Assistant Professors: D. Bluth, L. Henderson, R. Quinn, M. Wise
Lecturers: E. Michael, D. Wilson

COM 31 Business Communications 3 rec 3 cr
Effective listening, reading, speaking, and writing in and for business, including composition at the typewriter of memoranda, letters, and reports; research necessary for such writing. Prerequisite: ENG 13 and TYP 12; corequisite: TYP 13.

SEC 34 Medical Office Practice and Management I* 1 rec 3 lab 2 cr
Prerequisites: BIO 18, BIO 22; corequisites: COM 31, TYP 13, BIO 46.

SEC 35 Medical Office Practice and Management II** 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. Prerequisites: SEC 34; corequisites: BIO 47, LAW 45.

SEC 37 Medical Office Communication 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. Prerequisite: ENG 13 and TYP 12; corequisite: TYP 13.

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. Prerequisites: COM 31, SHO 13 or 17, TYP 13; corequisites: SHO 14, 18 or SHO 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.

*Offered during day session, spring semester only, and during evening session, fall semester only.
**Offered during day session, spring semester only.
**SEC 47 Educational Problems of School Secretaries I**
2 rec 2 cr
Public relations in modern public education; organization of New York City school system according to by-laws, manuals, directives; problems related to mental hygiene, student welfare and public guidance, health and safety; simple methods of research and educational statistics.

**SEC 48 Educational Problems of School Secretaries II**
2 rec 2 cr

**SHO 01 Refresher**
3 rec 0 cr
**Shorthand (Gregg)**
Designed to build shorthand skills. Intensive drill sessions in theory and vocabulary building.

**SHO 02 Refresher**
3 rec 0 cr
**Shorthand (Pitman)**

**SHO 11 Shorthand I (Gregg)**
5 rec 3 cr
Principles of shorthand theory and development of skill to take dictation of simple materials. Speed of 60 words per minute. Corequisite: **TYP 11 and ENG 13.**

**SHO 12 Shorthand II (Gregg)**
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: SHO 11 or 15, TYP 11; corequisite: TYP 12.

**SHO 13 Shorthand III (Gregg)**
4 rec 3 cr
Building extensive business vocabulary. Development of fluency in taking high-speed and sustained dictation, transcription techniques. Speed of 100 words per minute. Prerequisites: SHO 12 or 16, TYP 12; corequisite: TYP 13.

**SHO 14 Shorthand IV (Gregg)**
4 rec 3 cr
**SHO 15 Shorthand I (Pitman)**
4 rec 3 cr
Development of expert dictation speed. Integration of office-style dictation. High speed transcription according to office standards. Speed of 120 words per minute. Prerequisites: SHO 13 or 17, TYP 13.

**SHO 16 Shorthand II (Pitman)**

**SHO 17 Shorthand III (Pitman)**
4 rec 3 cr

**SHO 18 Shorthand IV (Pitman)**
4 rec 3 cr

**SHO 31 Legal Shorthand I**
4 rec 3 cr
**Gregg or Pitman)**
Dictation and transcription of non-litigation materials with attention to development of legal shorthand vocabulary. Minimum speed of 100 words per minute. Prerequisites: SHO 12 or 16, TYP 12; corequisites: SHO 13 or 17, TYP 13, LAW 41 and LAW 47.

**SHO 32 Legal Shorthand II**
6 rec 4 cr
**(Gregg or Pitman)**
High speed dictation and rapid transcription of litigation papers and materials—pleadings, orders, judgments, stipulation, ETB's, appeals. Speed of 120 words per minute. Prerequisites: TYP 13, SHO 31.

* Offered during day session, fall semester only.
** Offered during day session, spring semester only.
**SHO 34 Medical Shorthand I** 4 rec 3 cr  
**Gregg or Pitman**  
Dictation and transcription of material relating to the various medical specialties, such as pediatrics, geriatrics, opthalmology, orthopedics, obstetrics, and surgery. Development of a medical shorthand vocabulary. **Prerequisites:** SHO 12 or 16, TYP 12; or corequisites: TYP 13, BIO 22, BIO 46.

**SHO 35 Medical Shorthand II** 6 rec 4 cr  
**Gregg or Pitman**  
Dictation and transcription of letters, conferences and hospital reports. Preparation of materials for physicians' reports in connection with workman's compensation claims. Further expansion of the students' medical shorthand vocabulary. **Prerequisites:** TYP 13, SHO 34, BIO 46; or corequisite: BIO 47.

**TYP 01 Refresher Typing** 3 rec 0 cr  
Designed for students to develop typing skills. Extensive drill sessions to build speed and accuracy.

**TYP 11 Typing I** 5 rec 2 cr  
Development of basic skills in the use of the typewriter. Letter writing, tabulation problems and report writing. Speed of 35 words a minute.

**TYP 12 Typing II** 4 rec 2 cr  
Development of speed and control. Advanced letter writing problems, letter production, manuscript writing and tabulation. Speed of 50 words per minute. **Prerequisite:** TYP 11.

**TYP 13 Typing III** 4 rec 2 cr  
Typing skill at the expert level according to office standards. Special emphasis on integrated office projects. Development of high speed techniques. Speed of 60 words per minute. **Prerequisite:** TYP 12.

**ORI 43 Secretarial Senior Orientation** 1 rec 0 cr  
For students in Secretarial curricula. Seminar on continuing education; career planning; survey of employment opportunities and techniques of job-seeking.
SOCIAL SCIENCES

Chairman: Professor Arthur Galub
Professors: M. Chang, M. Doroshkin, H. Robbins
Associate Professors: C. Adams, R. Dennehy, L. Kovar, A. Wolk
Instructors: C. Daley, R. Mitchell, P. Morrill

Economics

ECO 11 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. No prerequisite.

ECO 12 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. No prerequisite.

ECO 15 History of Economic Thought 3 rec 3 cr
Study of evolution of economic ideas; basic problems of economics: factor allocation, distribution and growth. Major schools of economic thought (primitive, feudal, classical, marginalist, Keynesian, “Neo-classical synthesis,” modern socialism) are emphasized. Prerequisite: ECO 11 or 12, or permission of the instructor.

ECO 31 Economics of Labor 3 rec 3 cr
Study of all labor resources; their utilization, allocation, and compensation; unionism, government regulation, and other factors affecting the labor resource. No prerequisite.

Philosophy

PHL 11 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.

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.
Political Science

POL 11 American National Government 3 rec 3 cr
Survey of structure and activities of the National Government. Discussion of bases of present political system, power of pressure groups, role of political parties, selection of Congress and the President, and protection and deprivation of individual rights.

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: POL 11.

POL 41 The National Government & Civil Rights Since 1954 3 rec 3 cr
Analysis of roles played by the three branches of the National Government in enacting and enforcing civil rights laws. Focus on governmental activity concerning Black rights in voting and desegregation of schools from 1954 to the present, and other areas of civil rights, concerning Puerto Ricans, Chicanos, and American Indians. Prerequisite: POL 11 or permission.

POL 42 Civil Rights Throughout the World 3 rec 3 cr
Past and present comparison of governmental civil rights activities throughout the world, including civil rights and color (Blacks, Latins and Indians in the U.S., West and Great Britain, Eastern Jews in Israel, and Blacks in South Africa); Civil Rights and Religion (Catholics and Protestants in Northern Ireland, Moslems and Hindus in India, and Moslems and Jews in Israel); Women’s Rights in various countries. Prerequisite: POL 11 or permission.

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 11 or permission of instructor.

POL 61 Solving Social Problems Through The Political Process 3 rec 3 cr
Practical course showing how you can work through the existing channels for a more meaningful life. Focus on formal and informal responsibilities of officials in all levels of government. How to solve social problems and how to use political channels. Prerequisite: POL 11 or permission.

POL 81 Field Work And Seminar In 6 hrs field work
Political Science 3 cr
Supervised field work in local government agencies and in offices of local legislators. Related seminars develop understanding of political and governmental problems of urban communities. Prerequisites: 9 credits in the social sciences, including POL 11, and/or permission of the department.
<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>PSY 11</td>
<td>Psychology</td>
<td>3 rec 3 cr</td>
<td>Scientific method in the understanding of human behavior. Introductory study of growth and development, motivation, emotions and mental health, learning, intelligence and personality evaluation.</td>
</tr>
<tr>
<td>PSY 22</td>
<td>Social Psychology</td>
<td>3 rec 3 cr</td>
<td>Introduction to social psychology, focusing upon the nature of aggression and violent behavior; role of social influence in determination of deviant and conformist behavior, attitude change and decision-making, affiliation, primary and group relationships, social norms and interrelationship of personality and culture. Prerequisite: PSY 11.</td>
</tr>
<tr>
<td>PSY 31</td>
<td>Abnormal Psychology</td>
<td>3 rec 3 cr</td>
<td>Major forms of psychological disorders, such as neuroses, psychoses, psychosomatic disturbances and character disorders; their origin, development and treatment. Prerequisite: PSY 11.</td>
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<tr>
<td>PSY 35</td>
<td>Human Motivation I</td>
<td>3 rec 3 cr</td>
<td>Introduction to complex human motivation; emphasis on interaction of conscious and unconscious motives, inner conflict, and adaptive and maladaptive coping techniques. Applications to relevant contemporary problems, such as child rearing, psychotherapy, education and drug addiction. Prerequisite: PSY 11.</td>
</tr>
<tr>
<td>PSY 36</td>
<td>Human Motivation II</td>
<td>3 rec 3 cr</td>
<td>Clinical sensitivity to the forces underlying human behavior will be developed. Students will learn to work up a comprehensive, clinically sophisticated case report. Prerequisites: PSY 11 and either PSY 31, 35, 41, 42, 61 or 71.</td>
</tr>
<tr>
<td>PSY 41</td>
<td>Developmental Psychology I</td>
<td>3 rec 3 cr</td>
<td>Major factors in psychological development from infancy through childhood; influence of the family, and biological, cultural, and socio-economic factors in producing normal and abnormal intellectual and emotional growth. Prerequisite: PSY 11.</td>
</tr>
<tr>
<td>PSY 42</td>
<td>Developmental Psychology II</td>
<td>3 rec 3 cr</td>
<td>Study of development from adolescence to adulthood with regard to implications for self realization, love, marriage, vocation, parenthood, retirement, and aging. Changing attitudes and values about sex, drugs, aging, and politics will be explored in regard to different stages of adult development. Prerequisite: PSY 11.</td>
</tr>
<tr>
<td>PSY 43</td>
<td>Psychological Development During Maturity and Aging</td>
<td>3 rec 3 cr</td>
<td>Normal and abnormal psychological development during adulthood and old age. Emphasis on dynamics of the life cycle; theories of the mature personality; biological, social, and cultural determinants of aging, and influence of normal and abnormal aging processes on the perception, psychomotor skills, learning, intelligence, and personality. Prerequisite: PSY 11.</td>
</tr>
<tr>
<td>PSY 51</td>
<td>Group Dynamics I</td>
<td>3 rec 3 cr</td>
<td>Introduction to theory of group behavior, including analysis of the psychological structure of groups, cohesive and disruptive forces in group behavior, conflict and adjustment in group relationships, leadership role and relationship of groups to society. Students will develop awareness of skills needed to mobilize group interaction and to lead group discussion and activity groups. Prerequisites: PSY 11.</td>
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</tbody>
</table>
PSY 52  Group Dynamics II  3 rec 3 cr
Focus upon group process and techniques underlying various types of encounter groups, sensitivity groups and training groups. Emphasis on understanding of the group experience, including role playing, psychodrama, confrontation, self-disclosure and self-actualization. Students participate in a structured group environment which applies principles of group dynamics to an on-going group experience. Prerequisite: PSY 11.

PSY 61  Laboratory Group Experience I (Basic)  3 rec 3 cr
Class members analyze their interactions as a group in order to study group dynamics. Techniques of facilitating group interaction and insight. Prerequisite: PSY 11.

PSY 62  Laboratory Group Experience II (Advanced)  3 rec 3 cr
Individual and group psychodynamics, involving operation of the unconscious, defense mechanisms, and inner conflicts, as they emerge within the group. Prerequisite: PSY 61.

PSY 71  Clinical Techniques of Assistance in Human Services I  3 rec 3 cr
Methods of assessing psychological problems of individuals and mini-groups, through learning such techniques as history-taking, individual and family interview, home visit, the leadership role and other group dynamics, and of referral to appropriate community resources. Prerequisite: PSY 11.

PSY 72  Clinical Techniques of Assistance in Human Services II  3 rec 3 cr
Students explore more deeply a wide range of problems in the human services area and techniques and resources available for resolving these problems. Both actual and simulated situations are employed for training purposes. Prerequisite: PSY 11.

PSY 81  Field Work and Seminar in Psychology  3 rec 6 hrs field work
This course provides an opportunity to engage in field work or independent research in the area of psychology. Participation required in a seminar which integrates practical experience with course work. Prerequisites: 9 credits in the social sciences (Economics, Political Science, Psychology, Sociology) and/or permission of the department. Six of these credits must be in Psychology.
Sociology

**SOC 11 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.

**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. Prerequisite: SOC 11.

**SOC 32 Urban Sociology**  
3 rec 3 cr  
Sociological concepts of urbanism and community; current patterns of urban stratification and group life. History, spatial patterning, and social organization of urban areas related to different groups making up the city and its suburbs and to the processes and impact of change affecting them. Effect of urban living on personality and culture. Prerequisite: SOC 11.

**SOC 33 The Family**  
3 rec 3 cr  
Introduction to the study of the family as a social institution. Evolution of the form and functions of the family and how its structure is shaped by various forces in society. Significance of the family as a socialization agent, courtship and the romantic love complex, women's role and the changing family structure, minority culture families in American society with emphasis on the Puerto Rican and Black family, and a consideration of the future of the family. Prerequisite: SOC 11.

**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 11 or PSY 11 or permission of instructor.

**SOC 81 Field Work and Seminar in Sociology**  
6 hrs field work  
3 cr  
Supervised field work in community agencies. Related seminars develop understanding of social problems of urban communities as well as rudimentary skills in sociological research. Prerequisites: 9 credits in the social sciences, including SOC 11, and/or permission of the department.
SPECIAL EDUCATIONAL SERVICES

Chairman: Associate Professor Joe L. Rempson
Assistant Professors: B. Bennett, D. Davidson, P. Lanier, A. Simon

EDU 12 Contemporary 3 rec 3 cr
Urban Education
Foundation course in education dealing with factors that affect teaching-learning of inner-city children.

EDU 13 Behavioral Sciences 3 rec 3 cr
Foundation of Education I
Characteristics of children from infancy through age five in relation to teacher-learning processes. The BCC Child Development Center and other educational settings will be utilized for practical applications. For Education Associate majors only. Prerequisite: RDL 02 and ENG 01 or ESL 11 or equivalent.

EDU 14 Behavioral Sciences 3 rec 3 cr
Foundation of Education II
Characteristics of children from ages six through 12 in relation to teaching-learning processes. Various educational settings will be utilized for practical applications. For Education Associate majors only. Prerequisite: EDU 13.

EDU 15 Reading and Other 3 rec 3 cr
Language Arts for the Early Childhood and Elementary Years
Student will learn ways to help children learn to read and to acquire the other language skills necessary for academic success. Includes methods and materials, diagnosis and testing, and planning and implementation. Prerequisite: ENG 13 and/or corequisite EDU 14.

EDU 24 Day Care Seminar I 3 rec 3 cr
Topics include existing day care services, goals of day care centers, role of parents, records and record keeping, children's fears and feelings. Prerequisite or corequisite: EDU 14.

EDU 25 Day Care Seminar II 3 rec 3 cr
Room arrangements, classroom programs, child's physical development, day care curriculum and materials. Prerequisite: EDU 24.
EDU 26 School and Community Relations in Urban Schools
Practices and procedures to function more effectively in relationships with teachers and other school personnel, and particularly with parents; focus on individual and group processes. Case studies, simulation games, role-playing, and participant observation techniques. Prerequisites: Education Specialization Requirements for Education-Child Care degree students.

EDU 31 Introduction to Learning Problems
Designed to help students facilitate learning for children who are experiencing difficulty learning in school. Prescriptive instruction, precision teaching techniques, organization and management, effective learning environment and situations, and methods and materials. Prerequisites: Specialization Requirements for the Education-Child Care degree students.

EDU 40 Cooperative Education Work Experience
For students who are employed on a regular basis (minimum of 15 hours a week for 13 weeks of a semester), with proper supervision in accredited school or child-care facility. Students meet periodically with a BCC faculty adviser and demonstrate competence in selected classroom practices under the supervision of the Education-Child Care Associate faculty in conjunction with school principals, or directors and cooperating teachers. (This course cannot be used to meet Education Specialization Requirements.) Prerequisites: Completion of 45 or more credits including specialization requirements for degree students, counselor recommendation, and permission of department.

EDU 50 Survey of Creative Experiences for the Early Childhood and Elementary Years
Learn to assist children in developing their creativity in the various expressive forms such as music, dance, arts and crafts, creative dramatics; how to plan and implement creative experiences in classroom situations. Prerequisites: Education Specialization Requirements for the Education-Child Care degree students.

ESL 01 English as a Second Language—Basic
For students whose native language is not English. Individualized program for basic level students for development of English language skills. Builds oral and written control of basic grammatical structures, and listening and reading comprehension. Audio-laboratory practice. (Registration only with permission of department.)

ESL 11 English as a Second Language
For students whose native language is not English. Individualized program for development of English language skills. Grammatical structures, pronunciation, conversation; reading for comprehension and interpretation; dictation and composition. Audio-laboratory practice. Credit granted upon achievement of satisfactory proficiency level as determined by written and oral examinations. Registration only with permission of department.

RDL 01 Basic Reading Skills
Individualized program in fundamental reading skills with emphasis on phonics and syllabication, word structure, and sentence and paragraph analysis on student's instructional level. Required for those students who do not reach designated levels on a reading placement test. Upon successful completion, students are required to enroll in RDL 02.

RDL 02 Reading and Study Skills
Individualized program designed to develop reading and study skills necessary for success in college level work. Vocabulary development, comprehension skills, textbook techniques, and library and research techniques will be stressed. Prerequisite: RDL 01 or placement text.

*Students are expected to spend additional hours in the workshop if necessary.
governance of the college

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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 by the Office of Special Events as a supplement to the educational program of the College, as well as a service to residents of the community. The Office of Cultural Affairs merges the efforts of college, community, and professional artists into a balanced annual program.

Perspectives Programs include lectures in the fields of science, humanities, and the social sciences, and special seminars in contemporary subject matter not covered in the regular curriculum.

Professional Performing Arts span orchestral and choral concerts, opera, ballet, modern or ethnic dance, jazz and folk music. Dramatic events are produced by both campus groups and professional theatre companies.

Weekly film screenings of major motion pictures and documentaries serve entertainment and co-curricular purposes. Major visual arts exhibits are held semi-annually for painting, sculpture, graphics, and photography.

Special effort is made to bring a variety of outstanding artists and lecturers to the campus. These have included Jose Greco, Hal Holbrook, Duke Ellington, the Joffrey Ballet, the Metropolitan Opera Studio, and Les 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 and College Choir
The Bronx Community and College Choir includes BCC students and interested singers of the community. Under the direction of Professor John C. Hamell, the choir presents three major concerts a year at the college, and also in the greater metropolitan area.
**Directory of Buildings, Offices, and Facilities**

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**Directions to the College**

IRT Jerome-Woodlawn #4 train to Burnside Ave. or 183rd St.
IND Sixth Ave. "D" train to 183rd St.
#38 University Ave. bus to 181st St.
#40 Tremont Ave. Crosstown or #36 180th St. Crosstown to University Ave.
#13 Fordham Road Crosstown stops at University Ave. where it connects with the #38.

** Bronx Community College University Heights Campus**

University Avenue and West 181 Street
Bronx, New York 10453
(212) 367-7300
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