FALL 1977 SEMESTER

September 5
September 1-15
September 13, 14
September 17
September 21, 22
October 10
November 8
November 11
November 24-26
December 9
December 24-January 2
January 11
January 12-18

Labor Day
Registration (See details in Registration Guide)
Rosh Hashonah—no registration
First day of classes—Fall 1977
Yom Kippur—no classes
Columbus Day—no classes
Election Day—no classes
Veterans Day—no classes
Thanksgiving Recess—no classes
Last day to withdraw with a W grade
Winter Recess
Last day of classes
Final examinations

SPRING 1978 SEMESTER

January 30-February 7
February 9
February 13
February 20
March 20-26
April 21
April 22
April 28
May 27
May 29
May 30-June 5

Registration for Spring 1978 Semester
First day of classes—Spring 1978
Lincoln’s Birthday—no classes
Washington’s Birthday—no classes
Spring Recess—no classes
No classes after 4 p.m.
No classes
Last day to withdraw with a W grade
Last day of classes—Spring 1978
Memorial Day
Final examinations

*Subject to change
catalog 1977-78

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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. Open admissions offers the College an unprecedented opportunity to demonstrate its commitment to provide quality higher education for the many.

Traditionally, community college education has combined sound general education in the liberal arts with meaningful and relevant professional or career preparation. Its function has been to offer a broad, comprehensive and useful educational experience to prepare for a life of independent and creative thinking, dignity and community participation.

At Bronx Community College, the primary emphasis is upon the relationship of the individual faculty member to the individual student. Perhaps more than ever before, the administration and faculty recognize 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 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.

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, education associate, electrical engineering technology, mechanical engineering technology, medical laboratory technology, nursing, 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 theatre.
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.

NONDISCRIMINATION POLICY

Bronx Community College adopts and supports the policy of nondiscrimination mandated under Title IX of the Education Amendments of 1972. Accordingly, no person shall, on the basis of sex, be excluded from participation in or be denied the benefits, or be subjected to discrimination under any of the College's programs or activities.

A Title IX Coordinator has been appointed and grievance procedures have been established. Any student or employee of Bronx Community College who believes that there has been a violation of the Title IX regulations may invoke these procedures.

For further information, inquiries should be addressed to Dr. Donald P. Cancienne, Title IX Coordinator, Office of the President.
HISTORY OF BRONX COMMUNITY COLLEGE

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."

Classes began in February 1959 at the former site of the Bronx High School of Science at Creston Avenue and 184th Street. With Dr. Morris Meister as its first president, the College soon developed into a much-acclaimed comprehensive community college offering a broad selection of academic programs.

In April 1961, The City University of New York was created by the State Legislature, with Bronx Community College as one of its 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. For the next decade, the College grew dramatically, spurred in 1970 by the introduction of open admissions. By 1972 the College was occupying seven additional centers within walking distance of the main building and serving approximately 10,000 matriculated students.

In July 1973 the Dormitory Authority of the State of New York acquired the New York University Heights Campus for the use of Bronx Community College. Beginning with the fall 1973 semester, virtually all operations were moved to the 50-acre site overlooking the Harlem River. Bronx Community College students have the same facilities that served New York University so well. There are modern classrooms, lecture halls and laboratories; a 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, is open to the public.
The expanded nursing program of the College opened in September 1964 at the Bronx Municipal Hospital Center. Operated in cooperation with the Department of Hospitals of the City of New York, its activities were located at the Center until September 1976 when the program was moved to the Heights Campus.

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, the Bronx Community College Chamber Choir, work with the Bronx Council on the Arts, and the more than 120 events coordinated annually by the Committee on Community Projects and Special Events. Concerts, plays, films, speakers, and art exhibits are open to both students and the public, some at modest prices, many free.

Dr. Morton Rosenstock was named acting president of the College on February 1, 1976, following Dr. Colston's retirement.
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 50-79.

The following list summarizes the programs:

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

2. **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

3. **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

4. **Education Associate**
   - Career or Transfer Program—A.A.S. Degree
   - Child Care Option

5. **Engineering Science**
   - Transfer Program—A.A. Degree

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

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

8. **Liberal Arts and Sciences**
   - Transfer Program—A.A. Degree
   - Transfer Program—A.S. Degree

9. **Medical Laboratory Technology**
   - Career Program—A.A.S. Degree

10. **Nursing**
    - Career or Transfer Program—A.A.S. Degree

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

12. **Pre-Pharmacy**
    - Transfer Program (to a college of pharmacy, only)—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 senior colleges of The City University of New York for students planning to teach Secretarial Studies on the secondary level
EVENING AND CONTINUING EDUCATION

Evening, Saturday and Extension Education

Coordinator: Mr. Peter Daniels

Students may register for courses scheduled during the day or evening, on Saturdays, and in any of the extension centers where the College maintains classes. Most courses leading to the Associate in Arts (A.A.), Associate in Science (A.S.), and Associate in Applied Science (A.A.S.) degrees are available to students during evening hours. There is a wide range of classes scheduled on Saturdays from 8:30 a.m. to 3:30 p.m. Course offerings at our extension centers in the Bronx Psychiatric Center, 1500 Waters Place, and in the Veteran's Administration Hospital, 130 Kingsbridge Road, both in the Bronx, are determined by student demand and space availability. Instructors of evening, Saturday and extension courses are either full-time or adjunct members of the faculty.

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. These services and programs, offered by the Center for Continuing Education and Community Services, are called continuing education and community service programs and include noncredit 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 call upon the Center for a variety of services and assistance.

The College's Center for Continuing Education and Community Services offers approximately 30 programs to carry out the College's commitment to its community. Last year approximately 21,000 persons were served.

Municipal Personnel Program—preparation for promotional exams for federal, state and city personnel and the general public.

Mini-Semester Program—for leisure and career development.

Artists-in-Residence Program—instruction in ethnic and modern dance.

Bilingual Training and Housing Maintenance and Repair Program.

Extermination and Pest Control Program.

Adult Learning Center—high school equivalency and upgrading of job skills.

Job Development and Job Placement Program—academic and career guidance.

Summer Water Safety Job Training Program—for teenagers, 17 or older.

Summer Sports Skills Day Camp Program—for neighborhood youngsters.

Education for the Aging Program—counseling, free lunch, and activities for Bronx senior citizens.

General Equivalency Diploma for Ex-Offenders.

Metric Education for Adults.

Learning Through Listening—teaching of visually impaired adults.

Right-to-Read Academies—for adults who speak or read little or no English.

SUMMER SESSION

Coordinator of Summer Session: Mr. Peter I. Hoberman

During the six-week Summer Session, Bronx Community College students may pursue courses for advanced placement or acceleration of college standing, or to make up deficiencies. The Summer Session is also open to students of other colleges.

Announcements and a bulletin of courses offered in day and evening classes in the Summer Session are issued in the spring by the College.
DIRECTORY OF FACILITIES AND OFFICES

Auditorium
The Main Auditorium is on the lowest floor of the Gould Memorial Library. Its capacity of 750 enables its use for a variety of events including College convocations, students' curricular and extracurricular activities, cultural programs, and community activities.

BCC Child Development Center
The Bronx Community College Child Development Center was officially opened in October 1972 as a service to students of BCC 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 privately funded, professionally staffed Center, located at Altschul House, 2205 Sedgwick Avenue, attempts to provide a 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.

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., funds from which are used to support student activities.

Cafeteria
A cafeteria, located in the Gould Student Center, is operated for the convenience of students and faculty. In addition to the meals and refreshments available, the facilities are used for receptions and meetings.

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 and a Digital Equipment Corp. PDP-11/40. Hands-on experience, demonstrations, and instructional and research programming are provided, and remote access to the PDP-11/40 as well as the City University's IBM 370/168 from various locations on campus is available to students and faculty.

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.

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

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

Student Lounges
Students are invited to use and enjoy lounges and recreation areas in the Gould Student Center.

Student Publications Office
The office for student publications is in the Gould Student Center.

Swimming Pool and Gymnasium
The swimming pool and gymnasium, located in Alumni Gym, 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
LIBRARY AND LEARNING RESOURCES

Chairman: Professor E. Terry
Professor: J. Kolliner
Associate Professors: D. Canty, J. Skurdenis
Assistant Professors: D. Hadgis, O. Klymowycz, C. Schumacher
Instructors: E. Christian, E. Palmer, A. Peretz

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 locations: Technology Two Building and Sage Hall.

The print collection now exceeds 75,000 volumes and is growing rapidly. The library currently receives close to 500 periodicals covering 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 provides reference aid for the individual reader and prepares bibliographies for specific subject areas. In addition, the staff offers formal classroom instruction in the use of the library and in research procedures.

INSTITUTIONAL RESEARCH

Director: Dr. Normal Eagle

The Office of Institutional Research conducts studies with the aim of providing members of the College community with information and data important for decision-making and planning. It contributes 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 prepares students for careers, professions, and further education. Surveys of student opinion are conducted to keep faculty and administration 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 Friday...................... 1 p.m.-5 p.m.
Summer Hours............................... 1 p.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 admissions requirements and follows the admission procedures.

BASIC ADMISSION REQUIREMENTS

All applicants must meet the basic requirements 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. A USAF I diploma must be converted to a New York State Equivalency Diploma.

In addition to a high school diploma or its equivalent, a resolution passed by the Board of Higher Education on April 5, 1976, requires candidates for admission to have attained certain levels of academic achievement. The minimum requirement is a college admissions average of 70% or better, or a rank in class at the 26th or higher percentile, or evidence of proficiency in basic skills as demonstrated on the basis of a test administered by the University or by the presentation of an acceptable score on the GED examination. Applicants who do not meet the minimum requirements for admission shall be offered conditional admission to a transitional program designed to improve their skills. Successful completion of a proficiency examination will admit these students to the regular college program.

Residence
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 a county of New York State for a period of at least six months 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 Bursar's Office before registration. New York State residents who live outside New York City, but do not submit the required forms, will be charged nonresident fees. (See Tuition and Fees Schedule, pages 24-25).

Health and Physical Standards
All students 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, only one application is necessary.
2. The Special Programs Application is designed for students applying to SEEK and College Discovery and contains its own instruction manual. It should be noted, however, that applications from students who cannot be admitted to SEEK and College Discovery but who meet CUNY admissions requirements will be admitted automatically to a regular community or senior college program.

Where to Apply:
The following applicants should complete the Regular Application Form and send it to:

The University Application Processing Center
Box 148, Vanderveer Station
Brooklyn, New York 11210

1. Students who are currently 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. Students 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 recognized institution of higher learning, or are presently attending an institution of higher learning.
2. Applicants who wish nondegree status (nonmatriculated students). Each college will advise and supply an application to the above applicants.

Application Fee
All applications must be accompanied by a bank check or money order for $20, made out to The 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 15; 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 that 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 sciences. 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.
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>
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<th>AMERICAN HISTORY</th>
<th>ENGLISH</th>
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<tr>
<td>BUSINESS</td>
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<td>Accounting (A.A.S.)</td>
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<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>
<td>4</td>
</tr>
<tr>
<td>Teaching of Bus. Subjects (A.A.)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>EDUCATION ASSOCIATE (A.A.S.)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>ENGINEERING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering Science (A.A.)</td>
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</tr>
<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>
</tr>
<tr>
<td>LIBERAL ARTS &amp; SCIENCES (A.A. &amp; A.S.)</td>
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<td>4</td>
</tr>
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<td>MEDICAL LAB. TECHNOLOGY (A.A.S.)</td>
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<tr>
<td>NURSING (A.A.S.)</td>
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<td>4</td>
</tr>
<tr>
<td>PERFORMING ARTS—MUSIC (A.A.S.)</td>
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<tr>
<td>PRE-PHARMACY (A.A.S.)</td>
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<td>4</td>
</tr>
<tr>
<td>SECRETARIAL STUDIES (A.A.S.)</td>
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<td>4</td>
</tr>
<tr>
<td>TEACHING SEC. STUDIES (A.A.)</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 who present any deficiencies in the recommended units but meet 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>12</td>
<td>19</td>
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<td>19</td>
</tr>
<tr>
<td>0</td>
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<td>1</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>1</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>19</td>
</tr>
</tbody>
</table>

(2 units desirable)

| 0    | 3½       | 1       | 9½                   | 19    |
| 0    | 2½       | 1       | 10½                  | 19    |
| 0    | 2½       | 1       | 10½                  | 19    |

(3 units or 2 units of two languages)

| 0    | 2½       | 1       | 10½                  | 19    |
| 0    | 1        | 1       | 12                   | 19    |
| 0    | 2        | 1       | 11                   | 19    |
| 0    | 3        | 1       | 10                   | 19    |
| 0    | 1        | 1       | 12                   | 19    |
| 2    | 3        | 1       | 8                    | 19    |

admission to the college
ADVANCED STANDING ADMISSION

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

A student seeking advanced standing must have his records evaluated by the Office of Admission Services, 875 Avenue of the Americas, New York, N.Y. 10001, 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). Exception: Nursing courses must be passed with a grade of C or better and must be repeated if a grade of D is received. 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.
FOREIGN STUDENTS ADMISSION

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

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

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

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

Application Fee
Each application form must be accompanied by a U.S. bank check or money order in the exact amount of $20 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 Fall Semester admission; October 15 for Spring Semester admission.

Tuition and Fees
Qualified applicants from other countries pay $712.50 tuition per semester as full-time students. (See page 24 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.)
records
and registration

REGISTRAR’S OFFICE

Registrar: Mr. H. Erdsneker
Associate Registrars: Mr. A. Glasser, Mrs. M. Kraft
Assistant Registrars: 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 gradu-
ation. Grade reports that 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 ID
card.

Each student receives an ID card with his picture
and student number on it. He must carry this card
at all times for purposes of identification. The ID
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 $4 for each transcript
requested to be sent, except that transcripts to be
sent to colleges of The City University of New York
are forwarded free of charge.

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

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 Department Chairman 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 nonmatriculant fees. Students with permits from colleges not of City University must all register as nonmatriculants 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.

Association 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) $15.00/Sem.
2. Students taking Evening division courses only (includes registration, library, laboratory, audio laboratory, breakage, student activities, and graduation fees) $7.00/Sem.

Special Fees
(For all students—matriculated and nonmatriculated)

1. Application for admission $20.00
   (payable at registration time if not paid before)
2. Transcript (no charge for transcripts sent to colleges of The City University of New York) $4.00
3. Make-up and special examinations
   First examination per semester $15.00
   Each additional examination (maximum fee of $25.00 per semester for three or more examinations) $5.00
4. Late registration $15.00
5. Change of program (schedule of classes) $20.00
6. Duplicate ID card fee $5.00
7. Duplicate Record $5.00
Tuition Fees

<table>
<thead>
<tr>
<th></th>
<th>FULL TIME</th>
<th>PART TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(12 credit weight or more)</td>
<td>(fewer than 12 credit weight)</td>
</tr>
<tr>
<td>MATRICULANT and NONMATRICULANT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bona fide New York City Resident</td>
<td>$387.50</td>
<td>$35/contact hour</td>
</tr>
<tr>
<td>Out-of-City State Resident</td>
<td>$387.50</td>
<td>$35/contact hour</td>
</tr>
<tr>
<td>Non-New York State Resident, including Foreign Student</td>
<td>$712.50</td>
<td>$55/contact hour</td>
</tr>
</tbody>
</table>

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 26). These students must present evidence of enlistment or induction orders.

VETERANS’ BENEFITS

Information and advice concerning veterans will be furnished by the Office of Veterans’ Affairs (see page 44).

All new students planning to receive education benefits under G.I. Bills should contact the Veterans’ 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 Veterans’ Affairs Office, Loew Hall.
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 before the scheduled date of the session</th>
<th>Other Than Summer Session</th>
<th>Summer Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawal from course in order to register at another unit of the City University during that semester</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Withdrawal within one week after scheduled opening date of the session</td>
<td>75%</td>
<td>50%</td>
</tr>
<tr>
<td>Withdrawal during the second week after scheduled opening of the session</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>Withdrawal during third week after scheduled opening date of the session</td>
<td>25%</td>
<td>None</td>
</tr>
<tr>
<td>Withdrawal after completion of third week after scheduled opening date of session</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

A full 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.

*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.

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% |
THE FEDERAL EDUCATION RIGHTS AND PRIVACY ACT OF 1974

The regulations pursuant thereto, grant you the following rights:

1. To be advised of the types of student records and the information contained therein which are maintained by the college.
2. To be advised of the name and position of the official responsible for the maintenance of each type of record, the persons who have access to those records, and the purposes for which they have access.
3. To be advised of the policies of the college for reviewing and expunging those records.
4. To be advised of the procedures for granting you your access rights to your student records.
5. To be advised of the procedures for challenging the content of your student records.
6. To be advised of the cost if any which will be charged you for reproducing copies of your student records.
7. To be advised of all your other rights and requirements for the Federal Education Rights and Privacy Act of 1974 and the regulations promulgated thereunder.

All of the above information may be obtained from the Registrar, Room 14, Philosophy Hall, from 1 p.m. to 5 p.m. Monday through Friday or at other times by appointment. The following categories of information concerning individual students and former students will, except as indicated below, be made available to the general public: name, attendance dates, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

Any student or former student may require that any or all of the above information not be released without his/her prior written consent by completion of a form available in Room 23, Philosophy Hall. The form may be completed, withdrawn, or modified during the hours of 1 p.m. to 5 p.m. Monday through Wednesday and 1 p.m. to 8:30 p.m. Thursday.
COMMITTEE ON ACADEMIC STANDING

The Committee on Academic Standing formulates policy 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.

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 matriculant may carry a full- or part-time program of courses leading to a degree, and register for day and/or evening classes, according to his choice and the availability of class space. Full-time course load generally does not exceed 12 credits, or the number listed for that semester in the curriculum in the Curriculum Patterns, pp. 50-79.

Nonmatriculated Student:
A nonmatriculant is a student who (a) presents incomplete records for admission, or (b) applies too late, or (c) transferred from another college with an unsatisfactory record. A student becomes matriculant when all admission or transfer requirements are met.

MATRICULATION

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

The student’s matriculation status determines the course load he may carry during a semester and the order of priority in registration.

Official determination of scholastic index and certification of matriculation status of students already in attendance are made by the Registrar’s Office, in accordance with standards set by the Committee on Academic Standing.
GRADE POINT AVERAGE (GPA) OR INDEX CLASSIFICATION CHART

<table>
<thead>
<tr>
<th>Cumulative Credits or Equated Credits Attempted</th>
<th>Minimum Cumulative GPA Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12*</td>
<td>1.50</td>
</tr>
<tr>
<td>13-14</td>
<td>1.75</td>
</tr>
<tr>
<td>25-upward</td>
<td>2.00</td>
</tr>
</tbody>
</table>

This table is in effect as of September 1977 for all newly admitted and returning students. Grade Point Average (Index) is calculated on a cumulative basis.

SATISFACTORY RATE OF COMPLETION

<table>
<thead>
<tr>
<th>Cumulative Credits or Equated Credits Attempted</th>
<th>Minimum Satisfactory Rate of Completion per Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12*</td>
<td>50%</td>
</tr>
<tr>
<td>13-24</td>
<td>66%</td>
</tr>
<tr>
<td>25-upward</td>
<td>75%</td>
</tr>
<tr>
<td>Each subsequent semester</td>
<td>75%</td>
</tr>
</tbody>
</table>

This table is in effect as of September 1977 for all newly admitted and returning students.

First semester freshmen are evaluated by the first line of each chart, even if more than 12 credits are attempted.

Students who fail to achieve the required standards for Rate of Completion or GPA will be placed on probation for one semester. Students who fail to achieve the required standards while on probation will be notified that they have been academically suspended from the College.

No student will be permitted to be on academic probation for any reason for more than two consecutive semesters (i.e., one semester for rate of completion and one semester for GPA).

In each subsequent semester after the completion of 25 or more credits and/or equated credits, a student must maintain a 2.00 cumulative GPA regardless of the number of credits attempted.

The GPA requirements for determination of academic status shall be applied to all credits attempted without regard to the level of course and shall be determined by the highest level of course in which the student was registered.

The GPA requirements for determination of academic status shall be applied to all credits attempted by the student.

The GPA requirements for determination of graduation shall be applied to all credits in college level courses only. Grades for credits attempted in noncollege level courses or equated credits will not be used to determine a candidate’s eligibility for a degree.

Students who come under academic probation for either unsatisfactory percentage of completion or grade point average shall be so informed by having a notice of such status printed on the semester’s grade report and on their official permanent record at the College.

A student who is suspended from the College or University for unsatisfactory percentage of completion and/or GPA shall be separated from the University and may not be readmitted for one semester or equivalent calendar time. During the period of suspension, a student may not attend or be enrolled in any credit or equated credit course in the College or in any other unit of City University. A student under academic suspension may appeal to the CAS for readmission after the required period of separation.
DEGREE REQUIREMENTS

The required courses for the various degrees are listed in the sections on the Curricula and Programs (see pages 50-137).

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

Courses taken 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.

READMISSION

After one or more semesters of absence from the College, a student must apply for readmission. Readmission applications are available in the Registrar's Office for this purpose. A student who has not submitted a medical form within the two-year period prior to readmission will also be required to submit a medical form before his readmission will be approved. Deadlines for the receipt of applications for readmission are: Fall Semester, July 30; Spring Semester, December 30; 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 they are not creditable toward a degree. Grades in these courses will be included in the scholastic index, although they are not creditable toward the degree.

Remedial work should take precedence over other course work. Therefore, all remedial coursework should be completed within the first 12 credits or equated credits attempted.

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, 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

For a change of curriculum, a student should contact the Registrar's Office and complete Change of Curriculum form. Once the change has been approved, a student must meet the prescribed requirements for the new curriculum. Credits taken and earned in the student's former curriculum may not necessarily be applicable to the new curriculum. Determination of transferability of credits from one curriculum to another rests with the new Curriculum Coordinator.

PROGRAM ALLOWANCES AND COURSE LOADS

Limited (Probation) Programs

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

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.
GRADERS

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.

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

The following grades may be assigned by instructors:

<table>
<thead>
<tr>
<th>Grade</th>
<th>%</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 a student who is absent from a final examination and has done failing work in course)</td>
<td>0</td>
</tr>
</tbody>
</table>

*Applicable only to certain non-credit remedial courses.

**Applicable only at mid-term.
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>W</td>
<td>Withdrew 3rd through 10th week only.</td>
</tr>
<tr>
<td>WF</td>
<td>Withdrew Failing (counts as a failure) 3rd week through end of semester.</td>
</tr>
<tr>
<td>WU</td>
<td>Withdrew Unofficially and/or Excessive Absence (counts as a failure) 3rd week through end of semester.</td>
</tr>
</tbody>
</table>

Other Grades
NC—No Credit Granted (official leave of absence—administrative grade—not to be assigned by instructor).
AUD—Audit (registration only by special permission of the Registrar and Department Head).
Z—Administrative grade assigned temporarily when an instructor has been delayed in submitting the final grade. (Missing grade)

Withdrawal Procedure
Students wishing to withdraw from any course 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:
Withdrawal during registration period (usually through the 3rd week of classes)—grade assigned.
W* Officially withdrew from course—student initiated. May only be administered from 4th through 10th weeks of a semester. Recorded as unsatisfactory rate of progress.
WF Officially withdrew—student initiated. Indicates student was failing the course at the time of official withdrawal. May be administered from the 4th through 10th weeks of a semester through the end of the semester. Recorded as unsatisfactory rate of progress and 0.0 quality points in the Grade Point Average.
WU Unofficially withdrew (excessive absent from course). Administrative grade assigned by instructor from the 4th week of a semester through the exclusive of the assigned dates for examination. Recorded as unsatisfactory rate of progress and 0.0 quality points in the Grade Point Average.

b. Grades issued upon initiation of informal withdrawal procedure (student simply disappears) shall be as follows:
Any time during the semester—WU grade only.
(Note: WU grade = unofficial withdrawal for excessive absences, debarment.)

*CAS Policy: During the change of program period, usually the first through third week of the semester (or dates as published by the Registrar's Office), students who officially drop a course or section or who take an official leave of absence are considered to have canceled the particular registration and a grade is assigned. Students are subject to the tuition refund policy, as adopted by the Board of Higher Education, in effect at the time.
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 dates:
- March 15 for a grade received in the Fall Semester,
- 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.

Grade | Explanation
--- | ---
ABS | 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.)
INC | 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.)

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 Chairperson 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 24.

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 Chairman of the Department in which the course is given for a special examination. If the Department Chairman does not grant permission for such examination, he should advise the CAS. The denial of an application for examination should be communicated by the Department Chairman 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 List Achievement, are noted on the student's permanent academic record. Honors fall into several categories as described below.

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

Semester Dean's List: A matriculated student who has completed at least 15 degree 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 time. 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

A student who finds 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 file 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 26.

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.
- Upon completion of the Associate Degree, a senior college within The City University of New York will accept a minimum of 64 credits from the community college.
- A student who has completed an approved well-balanced program of at least 30 credits in an A.A. or A.S. curriculum and who has maintained an index of at least 2.75 (with a C being 2.00 and a B being 3.00) shall be admitted to the senior college of his choice.
- A graduate of a City University community college nursing program who has attained a 2.5 index shall be admitted to the nursing program of the senior college of his choice.

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

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 baccalaureate 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 noncredit 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.

CAMPUS BEHAVIOR CODE

In the interest of promoting student and faculty welfare at the College and the safety and security of our entire College community, the following Code of Behavior is in effect:

Gambling and the sale and usage of drugs, including marijuana, are illegal by New York State Law.

Any student who does not show his or her ID Card upon a legitimate request will be considered a trespasser and will be dealt with as such.

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

Use of alcoholic beverages is prohibited on campus, except for the consumption and/or sale of beer and/or wine at special events sponsored by chartered student groups under the supervision of a faculty advisor with prior approval of the Dean of Students.

Any student violating any code of behavior (including the use of drugs and marijuana) established by the College, and by the City, State, or Federal Government shall be subject to referral to appropriate public enforcement agencies and/or formal disciplinary procedures as outlined in Articles 15.3 to 15.5 of the Board of Higher Education by-laws and sanctions as listed in Board of Higher Education by-laws and Article 129A of the New York State Education Law.

The initiation of disciplinary procedures requires a predisciplinary hearing before a counselor from the Office of the Dean of Students as set up in line with the requirements of the by-laws of the Board of Higher Education immediately following an incident which is judged to be an infraction of Rules, Regulations or Behavior Code to determine whether or not the case should be referred to the Student-Faculty Discipline Committee. In emergency or extraordinary circumstances immediate suspension can be effectuated by the President or a Full Dean pending a hearing within seven (7) school days.

If the charges are of sufficient nature and have not been settled at the predisciplinary hearing, a formal hearing will be scheduled before the Student-Faculty Discipline Committee as specifically outlined in Article 15.3 of the by-laws of the Board of Higher Education.
As a result of this hearing or failure to appear at the hearing a student or students may be subject to immediate and permanent suspension which may apply to all units of the City University of New York. All students involved will be advised of the various levels of appeal under the by-laws of the Board of Higher Education.

Copies of Article 15.3 and Article 129A of the New York State Education Law are available in the Office of the Dean of Students and the Office of Student Activities.

PUBLIC ORDER
(EDUCATION LAW)

Rules and Regulations for the Maintenance of Public Order on Campuses of the City University
Pursuant to Article 129A of the Education Law

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

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

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

The President
The president, with respect to his educational unit, shall:

“(A) Have the affirmative responsibility of conserving and enhancing the educational standards of the college and schools under his jurisdiction;

“(B) Be the advisor and executive agent to the Board and of his respective College Committee and as such shall have the immediate supervision with full discretionary power in carrying into effect the bylaws, resolutions and policies of the Board, the lawful resolutions of any of its committees and the policies, programs and lawful resolutions of the several faculties;

“(C) Exercise general superintendence over the concerns, officers, employees and students of the educational unit.”

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

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

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

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

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

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

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

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

Penalties

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

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

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

Appendix—Sanctions Defined:

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

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

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

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

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

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

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

H. COMPLAINT TO CIVIL AUTHORITIES.

I. EJECTION.

Adopted by the Board of Higher Education June 21, 1969, Calendar No. 3(b)
STUDENT DEVELOPMENT DEPARTMENT

Chairman: Associate Professor Dolores J. Buillard  
Professor: C. Saueracker  
Associate Professors: L. Davis, D. Diamond, W. Kleiber, H. Rosenfeld  
Lecturers: J. Asch, A. Figueroa

The Student Development Department assists the highly diversified student body at Bronx Community College in the process of personal and vocational development. The community college experience is uniquely designed to challenge students to identify and explore their abilities and aptitudes. The department is concerned with student life on all levels, both in and out of the classroom; and its members strive to aid students to achieve optimum intellectual, social, and emotional development.

COUNSELING PROGRAM

In order that students can effectively pursue their studies at the College, it is essential that they have the assistance of expert counseling.

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. In addition to individual counseling, all new students are assigned to small group orientation sessions conducted by the counselors.

Counseling services are available to all students day and night.

COURSE AND CURRICULUM ADVISEMENT

Course and Curriculum Advisement is done by the Student Development counselor for the first and second semester. A student is then assigned to a faculty advisor in an academic teaching department for all future Course and Curriculum Advisement. Students are assigned according to their curriculum choice or in the case of Liberal Arts & Sciences, assignment is made based upon a student’s stated area of interest. Flexibility is maintained allowing the reassignment of a student if there is a curriculum change or if the student’s area of interest changes. Faculty advisors are an additional source of career information for students.

ORIENTATION SEMINAR—SPD 99

A ten-session seminar offered by the Department of Student Development is required of all entering freshmen or new students. It provides an opportunity for the new student to meet with his/her assigned counselor, in a group setting, for the purpose of becoming familiar with all facets of being a student at Bronx Community College. The seminar deals with issues and concerns of students regarding their role in the College community. It enables the student to get an overview of the College structure, academic rules and regulations, and career and vocational choices facing the college student. Some of the specific areas covered include grading and retention standards, financial aid, curriculum requirements, registration procedures, support services, career exploration, transfer policies and course selections for their second semester.

Students register for SPD 99 according to their curriculum. In instances where this is not possible because of conflicts, the student may choose any SPD section which is convenient.
SPECIAL COUNSELING SERVICES

The Department of Student Development offers special counseling services. Some of these are identified below. All students who wish to explore the name and room of the appropriate counselor.

Career Planning Services

Career counseling is provided for students who are undecided about career goals or wish additional information concerning the vocation they are hoping to enter. Services include the career library (pamphlets, books, college catalogs, and cassettes), career exploration groups, vocation inventory testing, and individual counseling.

Financial Aid Services

Applications

Many types of financial assistance, described below, are available to students at Bronx Community College. The total amount of assistance students may receive, through one or more programs, is based upon financial need. In order to apply for most types of aid, students must attend financial aid workshops at which they fill out the appropriate applications. They must then meet with a counselor who will review their applications. Information about applications and workshops may be obtained at the Financial Aid Office in Loew 224. Awards are made for one academic year and may be renewed upon application. Renewals are based upon continued financial need and satisfactory academic progress.

Tuition Assistance Program (TAP)

TAP is administered by the New York State Higher Education Services Corporation for residents of New York State. Under this program, full-time students (at least 12 credits or equated credits) whose families have an annual New York State taxable income (after exemptions and deductions have been subtracted) of $20,000 or less may qualify for assistance to help meet tuition charges.

Basic Educational Opportunity Grants (BEOG)

The Basic Educational Opportunity Grant Program is a federal aid program designed to provide financial assistance to students who need it to attend college. Basic Grants are intended to be the "floor" of a financial aid package and may be combined with other forms of aid, such as TAP, in order to meet the full costs of education. The amounts students receive are determined on the basis of their own and their families' financial resources. To be eligible, students must take at least six credits or equated credits each term.

The following types of financial assistance are available to students who take at least six credits or equated credits each term. However, preference will be given to those students who take at least twelve credits or equated credits each term.

College Work-Study Program (CWSP)

The College Work-Study Program, which is supported by federal and college funds, is designed to provide part-time employment for needy students. Jobs are available both on campus and off campus in non-profit agencies. When possible, students are given jobs which are related to their curricula or career interests. Participants are limited to no more than twenty hours of employment each week when classes are in session and no more than forty hours of employment each week during vacation periods.
Loans
The National Direct Student Loan Program (NDSL) and the Nursing Student Loan Program (NSL), which are supported by federal and College funds, are available to needy students. In addition, New York State residents who take at least six credits or equated credits each term and are in good academic standing may apply for loans through the Guaranteed Student Loan Program administered by the New York State Higher Education Services Corporation. Applications are available at participating banks. Students must meet with a counselor in order to have their applications certified.

Supplemental Educational Opportunity Grants (SEOG)
The Supplemental Educational Opportunity Grant Program is a federal program designed to help students whose need for financial assistance is exceptionally great.

Nursing Scholarships (NS)
Nursing Scholarships, which are supported by federal funds, are made available to nursing students whose need for financial assistance is exceptionally great.

College Discovery Stipends (CD)
Stipends are made available to needy full-time students (at least 12 credits or equated credits) who are members of the College Discovery Program.

Regulations for the programs, described above, are subject to change without notice.

Foreign Students Counseling Services
Foreign students counseling caters to the unique needs of foreign students, including information pertaining to special regulations (residency, fees, tuition waivers, scholarships), assistance in cultural and social adjustment, and referral to outside agencies where appropriate.

Handicapped Students Counseling Services
Special services are arranged for handicapped students to provide optimal educational opportunities. Provisions are made for registration, placement examinations, tutorial services, final examinations, and referral to social agencies and special programs at other CUNY units. This area includes not only the physically handicapped but also those serious medical conditions that limit students' physical capacities.

Health Services
Health services include preventive counseling for specific illnesses and diseases and referrals for health-related problems, as well as first aid assistance in physical or medical emergencies.

Job Placement Services
The Job Placement Office assists current students (matriculants and nonmatriculants) and recent alumni in obtaining suitable employment (part time, full time, and seasonal). Counseling for job hunting is offered as needed. The Office also conducts on-campus recruitment for graduates of career programs.
Pre-Admissions Counseling Services

Pre-admissions counseling concerning the many educational opportunities at BCC is available to all prospective students. Services include group and individual counseling for prospective freshmen, transfer students, and high school honor students.

Pregnant Students Counseling Services

Counseling in this area focuses on academic and life problems related to pregnancy and information regarding community resources appropriate to students' needs.

Psychological Services

Short-term help is available for situations in which students face critical issues that cannot be dealt with adequately within the limits of a counseling relationship; referrals can be made to cooperating agencies on campus or assistance can be offered in the selection of off-campus agencies.

Social Services

Information and counseling are available regarding problems with welfare, medicaid, food stamps, social security, housing, available legal services, and other matters within the framework of the field of social work.

Transfer Services

The Transfer Officer handles transfers to CUNY and other senior colleges and provides counseling, information and materials of special offerings and new programs. Applications for transfer without degree are available in the transfer office. Scholarship information and relevant financial aid information are also available.
Veterans' Affairs

The Office of Veterans' Affairs provides extensive supportive services for approximately 2,000 veterans currently enrolled at Bronx Community College. All veterans' educational benefits are processed through this office, which also administers veterans' work study, makes counseling referrals, and cooperates with the Veterans' Readiness Institute and the BCC veterans' association. The newsletter provides information of interest to veterans.

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 cafeteria dividends and similar sources. The funds are expended for student extracurricular activities, including student publications, clubs, social activities, athletic teams and organizations, based on budgetary recommendations from student and faculty representatives.

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

The student activities program is an official part of the educational program of the College and is organized and operated as an ongoing laboratory in human relations.

The Office of Student Activities is the central clearinghouse for information on all student activities. The student activities program is an important aspect of a student's growth as well as an excellent opportunity to meet new people.

All officers of the student associations, clubs and publications, and members of the College Senate and athletic teams must be matriculated students with a minimum cumulative scholastic index of 2.0.

Student Associations

Student associations are responsible for planning and executing the kinds of programs best suited to the needs of their constituents. They work cooperatively for total student welfare through the Student Association Executive Board.

Student representatives participate as voting members on the Bronx Community College Association, Inc., which is responsible for the financial support of all student organizations.

Student Governing Bodies:

STUDENT CAUCUS—COLLEGE SENATE

Student representatives from each of the Student Associations and students elected at large hold senatorial seats on the BCC College Senate. Students who are senators make up the Student Caucus.

The College Senate has legislative power with regard to academic affairs, long-range planning, and campus life and activities. Student faculty senators participate as voting members on various College Committees. Among them are: Senate Executive Committee, Nominations and Elections, Budgets and Grants, Governance Structures and Functions, Space and Facilities, Academic Standing, Curriculum, Instruction, Community Projects, and Special Events and Student Activities.

Clubs and Organizations

The Inter-Organizational Council is the representative body of student clubs and organizations that plans and coordinates various club activities.

Accounting Club
Art Club-Day
Art Club-Evening
Black Student Union
Caribbean Student Association
Ceramics and Crafts Club
Channel BARLD
Chemistry Club
Chinese Club
Circulo Cultural de Estudiantes Dominicanos
College Discovery Club
Committee Against Racism
Creative Writing Club
Film Workshop
Forensic Society
French Club
Gay Integrated Group
German Club
Haitian Student Association
Health and Physical Education Club
History Club (CLIO)
Institute of Electrical and Electronic Engineers
Italian Club
Jewish Student Association
Latinos Unidos
Music Club
Muslim Student Association
Olympus Society (Greek Club)
Photography Club
Pre-Law Club
Progressive Labor Party
Psychology Club
Puerto Rican Student Association
Readers Theatre
Science/Fiction/Fantasy/Comic Collectors Club
Secretarial Club
Seekers
Society of Manufacturing Engineers
Spanish Club
Tau Alpha Pi
The Way Campus Outreach
Theatre Workshop
Veterans' Association

Student Publications

The Communicator (newspaper)
Language Forum (Modern Language literary magazine)
Through the Looking Glass (literary magazine)
Senior yearbook
Evening Reporter (Evening Student Association newsletter)
Channel BARLD (Business magazine)
Gould Student Center
The Gould Student Center is dedicated to serving the social, cultural and recreational needs of Bronx Community College students and provides for a variety of services and educational experiences. The facility includes a snack bar, theatre, lounges, game room, quiet browsing room, and meeting rooms. The BCC bookstore is located in the Center. For information regarding use of the facilities for programs, meetings or conferences, contact the Gould Student Center Office, Room 201.

The Student Service Center, located in the lobby of Gould Student Center, serves as an active source of information.

ALUMNI ASSOCIATION

The function of the Alumni Association is to extend services to former students and to further the educational, social and cultural affairs of the College. The Alumni Association is administered by a college-wide board of advisers whose function is to introduce the spirit of innovation and positive communication for the benefit of alumni and the College community. All students become members of the Bronx Community College Alumni Association upon graduation.

ATHLETICS

Director of Athletics: Prof. Gus Constantine
Coordinator of Men's Athletics: Prof. Gus Constantine
Coordinator of Women's Athletics: Prof. Michele Stern
Coordinator of Intramurals: Mr. Earl Duval

The Athletic Program at Bronx Community College is designed to fulfill the student's natural need for physical activity under competitive as well as non-competitive conditions.

The intercollegiate program is geared toward those students who exhibit above average abilities and is intended to promote through competitive athletic participation the development of the total personality. The intramural program is primarily for those with average abilities and, although spirited, is of a less competitive nature. The recreational activities program is designed to provide opportunity for exercise of a noncompetitive 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 XI, the Metropolitan Community College Athletic Conference, and the National Association of Intercollegiate Athletics for Women.
Intercollegiate Athletics
Men's Baseball Team
Men's Basketball Team
Men's Cross Country Team
Men's Indoor Track Team
Men's Karate Club
Men's Soccer Team
Men's Tennis 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 Club

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:
Bowling Club
Martial Arts Club (Judo, Karate, etc.)
Modern Dance Club
Outdoor/Backpack/Bicycling Club
Scuba Club
Ski Club
Synchronized Swimming Club
Tennis Club
Yoga Club
special programs

INDEPENDENT STUDIES

There are two types of independent studies courses for students who wish to design their own nonclassroom courses. Students are able to pursue supervised projects and studies which transcend discipline limitations. The courses are for elective credit only.

PROJECT DOWNTOWN

Coordinator: Prof. Allen Pomerantz

Downtown is a unique arrangement which enables students in all humanities departments, Communication Arts and Sciences, English, History, Modern Languages, Music and Art, and Social Sciences, to combine regular classroom study with off-campus structured experiences. As part of the general course work, museums, theatres, courts, radio and television stations, international institutions, embassies and municipal agencies of the City of New York are available to serve as resources for study.

COLLEGE DISCOVERY PROGRAM

The College Discovery Program, supported by state and city funds, was initiated at Bronx Community College in 1964 to offer the possibility for higher education to students of disadvantaged backgrounds. 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 money for books, pay registration fees, and may be eligible to receive a stipend 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. The students are integrated into all classes and are encouraged to participate in all college activities.

CUNY BACCALAUREATE PROGRAM

This is a four-year City University program leading to a bachelor's degree. It permits mature and highly motivated students with a clear idea of their educational and career objectives to design their own academic program. It provides an opportunity to do in-depth research and/or field work projects for a maximum of 30 credits. Valid nonclassroom learning experiences prior to admission (life experiences directly related to the student's area of interest) may be recognized for a maximum of 15 of the 30 credits.

An applicant to the program must be currently matriculated in good standing and must have completed 15 college credits.
PROJECT TOTAL DISCOVERY

Coordinator: Prof. William Kleiber

Project Total Discovery is an interdisciplinary cluster program for College Discovery students involving eight departments at the college: Communication Arts and Sciences, English, Health and Physical Education, Mathematics, Modern Languages, Social Sciences, Special Educational Services and Student Development. Courses offered in Project Total Discovery are regular college courses although the program is mainly for students who need extensive remedial work. Students receive intensive academic, tutorial and counseling support and are encouraged to work closely with each other and the faculty toward the goal of success in college. Workshops for Total Discovery students are held on a weekly basis to explore a variety of issues related to college achievement.

MILE (MOBILE INTENSIVE LEARNING EXPERIENCE)

Coordinators: Prof. Carlos Alvarado (Puerto Rico) Prof. Luis Pinto (Spain)

MILE combines summer study and travel for supervised groups of students. The program focuses on the history, culture and language of the area studied, with emphasis on personal contact with its people. Programs are currently conducted in Puerto Rico and Spain.

COOPERATIVE EDUCATION INTERNSHIP PROGRAM

Coordinator: Prof. Constance Lerner

The Cooperative Education Internship Program is now in effect for matriculated students in the Accounting, Data Processing, Marketing Management and Sales, and Secretarial Studies 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.

MEEOP (MINORITY ENGINEERING EXTENDED OPPORTUNITY PROGRAM)

Coordinator: Prof. Phyllis B. Berger

The MEEOP program is a cooperative venture between Bronx Community College and Cornell University that is designed to encourage minority students to enter and succeed in the field of engineering.

The first part of the program at Bronx Community College concentrates on the mathematics, physics and science courses that are prerequisites for all engineering education. Students completing their studies for the Associate degree with an average of B (3.0) and with grades in mathematics and science courses around the B (3.0) level are assured of admission into Cornell University's College of Engineering. Cornell will carefully review the transfer requests of students with lower averages and an admission decision will be based on their overall progress at Bronx Community College. In general, to enter Cornell as juniors, students will be required to take some extra credits at BCC.

At Cornell, students will conclude their studies towards the degree of Bachelor of Science in a specialized field of engineering.

Special counseling and financial aid are available at both institutions throughout the program. At Cornell, any necessary financial assistance will be given once a student is accepted. To apply for this program, a student must list Bronx Community College as his first choice on the CUNY application, with Engineering Science as the desired curriculum. Once enrolled he may register as a MEEOP student.
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 or 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 or at Hunter College.

The specific requirements and characteristics of the three categories are described and explained on pages 50-58.

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 units of the 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.

*Students may also transfer to one of the other senior colleges of the City University of New York having a program in Business Administration.

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 managers, budget directors, private accountants, or controllers. With further appropriate training and experience, graduates may qualify for certification as Certified Public Accountants or teachers of accounting and related subjects.
## Curriculum Pattern for the Accounting Specialization

### 45-47 Credits required for A.A.S. Degree

### First Semester

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
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<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>CHS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
</tr>
<tr>
<td>HKT 11</td>
<td>Marketing</td>
<td>3</td>
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### Second Semester

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<th>Credit</th>
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<td>Fundamental Accounting II</td>
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</tr>
<tr>
<td>MTH</td>
<td>Mathematics</td>
<td>3-4</td>
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<tr>
<td>DAT 30</td>
<td>Introduction to Systems</td>
<td>3</td>
</tr>
<tr>
<td>HS 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>3</td>
</tr>
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### Third Semester

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<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ACC 13</td>
<td>Intermediate Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 31</td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>BIO 18</td>
<td>Human Physiology (or see below)</td>
<td>4</td>
</tr>
<tr>
<td>MUS or ART</td>
<td>Music or Art Course</td>
<td>1</td>
</tr>
<tr>
<td>PA 11-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
</tr>
<tr>
<td>ICWE 31</td>
<td>Cooperative Work Experience</td>
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### Fourth Semester

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<th>Credit</th>
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</thead>
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<tr>
<td>ACC 14</td>
<td>Cost Accounting</td>
<td>4</td>
</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ECO 11</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>PA 11-81</td>
<td>Physical Ed. (choose one)</td>
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</tr>
<tr>
<td>ICWE 32</td>
<td>Cooperative Work Experience</td>
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</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

*MTH 11 for students with one year of high school algebra, or MTH 16 for students with intermediate algebra, or MTH 30 for students who plan to transfer to a four-year college. MTH 31, or MTH 21 and 22 will fulfill Baruch’s math requirements for BBA degree.

The courses must be selected from Art, Communications, English, Music, Modern Languages, History, or Social Sciences.

It is recommended that students planning to transfer to a four-year college take a laboratory science to be selected from BIO 11, CHM 11, PHY 11 or AST 12.

Art 11 or Music 11 are recommended for students planning to transfer to a four-year college.

ICWE 31 and 32 are not required of full-time evening students. They may substitute one course from either DAT 40 or Marketing elective.
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
66-67 Credits required for A.A.S. Degree

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Dept. &amp; No.</td>
<td>Course Title</td>
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<tr>
<td>ENG 13</td>
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<tr>
<td>HIS 12 or 11</td>
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</tr>
<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
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<tr>
<td>MKT 11</td>
<td>Textiles</td>
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<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<table>
<thead>
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<tbody>
<tr>
<td>_dept. &amp; No.</td>
<td>Course Title</td>
</tr>
<tr>
<td>CMS 11</td>
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</tr>
<tr>
<td>*MTH 11</td>
<td>11th Year Mathematics</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
</tr>
<tr>
<td>MKT 17</td>
<td>Consumer Problems</td>
</tr>
<tr>
<td>**</td>
<td>Elective</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td>**</td>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
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</thead>
<tbody>
<tr>
<td>Dept. &amp; No.</td>
<td>Course Title</td>
</tr>
<tr>
<td>ECO 11</td>
<td>Economics</td>
</tr>
<tr>
<td>MKT 18</td>
<td>Consumer Behavior</td>
</tr>
<tr>
<td>†BIO 18</td>
<td>Human Physiology (or see below)</td>
</tr>
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<td>††MKT</td>
<td>Marketing Elective</td>
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<tr>
<td>**</td>
<td>Elective</td>
</tr>
<tr>
<td>§CWE 31</td>
<td>Cooperative Work Experience</td>
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<td>Total</td>
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<table>
<thead>
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<th>Fourth Semester</th>
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</thead>
<tbody>
<tr>
<td>††MKT</td>
<td>Marketing Elective</td>
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<tr>
<td>LAW 41</td>
<td>Business Law</td>
</tr>
<tr>
<td>MKT 43</td>
<td>Advertising &amp; Sales Promotion</td>
</tr>
<tr>
<td>ART 10 or</td>
<td>Art Survey</td>
</tr>
<tr>
<td>MUS 10</td>
<td>Music Survey</td>
</tr>
<tr>
<td>MKT 33</td>
<td>Retail Buying Techniques</td>
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<tr>
<td>§CWE 32</td>
<td>Cooperative Work Experience</td>
</tr>
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<td>**</td>
<td>Total</td>
</tr>
</tbody>
</table>

*Students planning to transfer to a four-year college should take MTH 30 or 31. MTH 21 and 22 will fulfill Baruch's math requirements for the BBA degree.
**Six credits may be selected from Art, Communications, English, History, Modern Languages, Music or Social Sciences.
††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, PHY 11, or AST 12.
†††Students must select six credits from MKT 41, MKT 70, MKT 71.
§CWE 31 and CWE 32 are not required of full-time evening students. They may substitute FIN 31, or DAT 30, or one marketing elective.
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 or Lehman College of The City University of New York, to which the student 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 a 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, the student may qualify by state examination as a Certified Public Accountant, or as a teacher in the field of business administration.

**Curriculum Pattern for the Accounting Option**

(Transfer to Baruch or Lehman College)

67-68 Credits required for A.A. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 13</td>
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<td></td>
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<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>* MTH 30, or 31</td>
<td>Pre-calculus, or Analytic Geometry and Calculus</td>
<td>4</td>
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<tr>
<td>** PEA 11</td>
<td>Modern Language</td>
<td>4</td>
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Total 16

<table>
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<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENG 14</td>
<td>Composition and Prose</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization &amp; Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACC 12</td>
<td>Fundamental Accounting II</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>** CMS 11</td>
<td>Modern Language</td>
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Total 17

<table>
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<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</td>
<td></td>
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<tr>
<td>ACC 13</td>
<td>Intermediate Accounting</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BUS 41</td>
<td>Business Statistics</td>
<td>3</td>
<td></td>
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<tr>
<td>TSCI</td>
<td>Science</td>
<td>4</td>
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<tr>
<td>CMS 21</td>
<td>Voice and Diction</td>
<td>2</td>
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<td>PEA 12-81</td>
<td>Physical or Health Ed. (choose one)</td>
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Total 17-18

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<tbody>
<tr>
<td>ACC 14</td>
<td>Cost Accounting</td>
<td>4</td>
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</tr>
<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ECO 11 or 12</td>
<td>Micro or Macro Economics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>§ Social Science or History</td>
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<td># Social Science</td>
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Total 17

*Students who have taken Advanced Algebra in high school may be exempt from MTH 30 by permission of the Mathematics Department. In this instance, MTH 31 is required. MTH 21 and 22 will fulfill Baruch’s math requirements for B.B.A. degree.

**A student who has completed three years of a foreign language in high school is exempt from the language requirement. Arrange for a course substitution with the Chairman of the Department of Business and Commerce.

†A student may choose one semester of any one of the sciences of Biology (BIO 11), Chemistry (CHM 11), Physics (PHY 11), or Astronomy (AST 12).

‡ECO 11 for transfer to Baruch College, ECO 12 for transfer to Lehman College.

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

#Choose one of the Social Sciences: Philosophy, Psychology, Political Science, or Sociology.
**Business Administration—Management**

Curriculum Pattern for the Management Option (Transfer to Baruch or Lehman College)

65-67 Credits required for A.A. Degree

<table>
<thead>
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<th>First Semester</th>
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<tbody>
<tr>
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<td>Course Title</td>
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<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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<tr>
<td>MKT 11</td>
<td>Marketing</td>
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<td>Pre-Calculus, or Analytic Geometry and Calculus</td>
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<td>Modern Language</td>
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<td>CMS 11</td>
<td>Fundamental Communications</td>
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<tbody>
<tr>
<td>ENG 14</td>
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<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
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<td>Fundamental Accounting I</td>
</tr>
<tr>
<td>CMS 21</td>
<td>Voice and Diction</td>
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<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tbody>
<tr>
<td>ACC 12</td>
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<tr>
<td>BUS 41</td>
<td>Business Statistics</td>
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<td>Science</td>
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<tr>
<td>DAT 30</td>
<td>Introduction to Systems</td>
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<td>‡</td>
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<td>Social Science or History</td>
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<td>MUS or ART</td>
<td>Music or Art Course</td>
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<td>PEA 11-81</td>
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</table>

*Students who have taken Advanced Algebra in high school may be exempt from MTH 30 by permission of the Mathematics Department. In the instance, MTH 31 is required.

**A student who has completed three years of a foreign language in high school is exempt from the language requirement. Arrange for a course substitution with the Chairman of the Department of Business and Commerce.

†ECO 11 for transfer to Baruch College, ECO 12 for transfer to Lehman College.

‡A student may choose one semester of any of the sciences of Biology (BIO 11) Chemistry (CHM 11), Physics (PHY 11), or Astronomy (AST 12).

§Choose from Political Science, Philosophy, Psychology, or Sociology.

¶Choose from History or Philosophy (PHL 11), Political Science (POL 11), Psychology (PSY 11), or Sociology (SOC 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 a 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>
<thead>
<tr>
<th>Part. No.</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>G 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>S 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>IH 30, or</td>
<td>Pre-calculus, or Analytic Geometry and Calculus</td>
<td>4</td>
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<tr>
<td>31</td>
<td>Modern Language</td>
<td>4</td>
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<tr>
<td>KT 11</td>
<td>Marketing</td>
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### Second Semester

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<tbody>
<tr>
<td>G 14</td>
<td>Composition and Prose</td>
<td>3</td>
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<tr>
<td>IC 11</td>
<td>History or Social Science</td>
<td>3</td>
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<tr>
<td>KT 18</td>
<td>Modern Language</td>
<td>4</td>
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<tr>
<td>A 11-81</td>
<td>Fundamental Accounting I</td>
<td>4</td>
</tr>
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<td></td>
<td>Consumer Behavior</td>
<td>3</td>
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### Third Semester

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<tr>
<td>AS 11</td>
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<tr>
<td>O 11</td>
<td>Micro Economics</td>
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<tr>
<td>I</td>
<td>Science</td>
<td>4</td>
</tr>
<tr>
<td>FS 41</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>KT 33</td>
<td>Buying Techniques</td>
<td>3</td>
</tr>
<tr>
<td>A 11-81</td>
<td>Physical Ed. (choose one)</td>
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### Fourth Semester

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<tbody>
<tr>
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<td>Voice and Diction</td>
<td>3</td>
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<td>W 41</td>
<td>Social Science</td>
<td>3</td>
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<tr>
<td>KT 43</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>LT 30</td>
<td>Advertising and Sales Promotion</td>
<td>3</td>
</tr>
<tr>
<td>LS or ART</td>
<td>Introduction to Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Music or Art</td>
<td>1-3</td>
</tr>
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</table>

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

††A student may choose one semester of any of the sciences of Biology (BIO 11), Chemistry (CHM 11), Physics (PHY 11), or Astronomy (AST 12).

§Choose from Political Science, Psychology, Philosophy, or Sociology.
BUSINESS TEACHING CURRICULAS
(Transfer to Baruch or Hunter College)

The Business Teaching program offers two plans to students preparing to teach in high school: 1) For students planning to teach Bookkeeping and Accounting at the secondary level and who plan to transfer to Baruch or Hunter 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 or Hunter College.

Curriculum Pattern for H.S. Teaching Option: Bookkeeping and Accounting
(Transfer to Baruch College)
66-68 Credits required for A.A. Degree

<table>
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<th>First Semester</th>
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<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
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<tr>
<td>*MTH 30</td>
<td>Pre-calculus</td>
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<td>Business Mathematics</td>
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<tr>
<td>**</td>
<td>Modern Language</td>
<td>4</td>
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<th>Second Semester</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 14</td>
<td>Composition &amp; Prose</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>**</td>
<td>Modern Language</td>
<td>4</td>
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<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
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<tr>
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<td>Marketing</td>
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<th>Third Semester</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMS 21</td>
<td>Voice &amp; Diction</td>
<td>2</td>
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<tr>
<td>ECO 11</td>
<td>Micro Economics</td>
<td>3</td>
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<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 &amp; Management</td>
<td>3</td>
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<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
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<tr>
<th>Fourth Semester</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>††</td>
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<tr>
<td>ACC 13</td>
<td>Intermediate Accounting</td>
<td>4</td>
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<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
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<tr>
<td>§</td>
<td>Social Science</td>
<td>3</td>
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<tr>
<td>MUS or ART</td>
<td>Music or Art</td>
<td>1-3</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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</table>

*Students who have taken Advanced Algebra in high school may be exempt from MTH 30 by permission of the Dept. of Mathematics. In this instance MTH 31 is required. MTH 30 or MTH 21 and 22 will fulfill Baruch’s mathematics requirements.

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

§Choose from Political Science, Psychology, Philosophy, or Sociology.
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>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>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td>HIS 11</td>
<td>History of Western Civ. I</td>
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</tr>
<tr>
<td>*</td>
<td>Modern Language</td>
<td>4</td>
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<td>ACC 11</td>
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<td>4</td>
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</tr>
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<td>BUS 11</td>
<td>Business Mathematics</td>
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<th>Credit</th>
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<tr>
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<td>Composition &amp; Prose</td>
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<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td>HIS 12</td>
<td>History of Western Civ. II</td>
<td>3</td>
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<tr>
<td></td>
<td>Modern Language</td>
<td>3-4</td>
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<tr>
<td><strong>MTH 21</strong></td>
<td>Survey of Mathematics I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACC 12</td>
<td>Fundamental Accounting II</td>
<td>4</td>
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<th>Third Semester</th>
<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>
<td>3</td>
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<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td><strong>MTH 30</strong></td>
<td>Modern Language</td>
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<tr>
<td>ACC 13</td>
<td>Intermediate Accounting</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization and Management</td>
<td>3</td>
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<th>Fourth Semester</th>
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<td>HLT 91</td>
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<td>ECO 11</td>
<td>Microeconomics</td>
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<td>Modern Language or Elective</td>
<td>3-4</td>
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<tr>
<td>*</td>
<td>Science</td>
<td>4</td>
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<tr>
<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
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<td>FIN 31</td>
<td>Principles of Finance</td>
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</table>

*A student who has completed three years of a foreign language in high school is exempt from the language requirement. Arrange for a course substitution with the Chairman of the Department of Business and Commerce.

**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.

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

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

Curriculum Pattern for H.S. Teaching Option: Marketing Management and Sales (Transfer to Baruch College) 66-68 Credits required for A.A. Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<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 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</td>
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<td>Modern Language</td>
<td>4</td>
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<tr>
<td><strong>MTH 30</strong></td>
<td>Pre-calculus</td>
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<td>Business Mathematics</td>
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<th>Course Title</th>
<th>Credit</th>
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<tbody>
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<td>CMS 11</td>
<td>Fundamental Communications</td>
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<tr>
<td>PEA 11-81</td>
<td>Composition &amp; Prose</td>
<td>3</td>
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<tr>
<td>MKT 11</td>
<td>Marketing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Modern Language</td>
<td>4</td>
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<tr>
<td><strong>POL 11</strong></td>
<td>History or Social Science</td>
<td>3</td>
<td></td>
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<tr>
<td><strong>PEA 11-81</strong></td>
<td>Physical Education (choose one)</td>
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<tr>
<td><strong>Total 2nd</strong></td>
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<td>ACC 11</td>
<td>Fundamental Accounting I</td>
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<td>MKT 33</td>
<td>Buying Techniques</td>
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<td>MKT 13</td>
<td>Textiles</td>
<td>4</td>
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<tr>
<td>MUS or ART</td>
<td>Music or Art</td>
<td>1-3</td>
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<td>16-18</td>
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<tr>
<th>Fourth Semester</th>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ECO 11</td>
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<td>LAW 41</td>
<td>Business Law</td>
<td>3</td>
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<td>MKT 18</td>
<td>Consumer Behavior</td>
<td>3</td>
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<td>MKT 43</td>
<td>Advertising and Promotion</td>
<td>3</td>
<td></td>
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<tr>
<td><strong>PEA 11-81</strong></td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td><strong>Total 4th</strong></td>
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<td></td>
<td>16</td>
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</table>

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‡Student may choose one semester of Biology (BIO 11), Chemistry (CHM 11), Physics (PHY 11), or Astronomy (AST 12).

§Choose from Political Science, Psychology, or Sociology.
DATA PROCESSING

Curriculum Coordinator: Prof. M. May

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

Trained data processing personnel are in demand because of the ever-growing use of computers. Starting salaries are excellent for both men and women who qualify in the areas of systems analysis, programming, computer operations and the use of unit record equipment.

The Data Processing Curriculum provides a well-grounded program of:
- general education in liberal arts and sciences
- business background preparation
- data processing specialization

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

Curriculum Pattern for Data Processing Programming and Systems Option

67-69 Credits required for A.A.S Degree

First Semester

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
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<td>DAT 30</td>
<td>Introduction to Systems</td>
<td>3</td>
</tr>
<tr>
<td>*MTH 11, 16, or 17</td>
<td>Mathematics</td>
<td>3-4</td>
</tr>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
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<tr>
<td>Total</td>
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<td>16-17</td>
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Second Semester

<table>
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<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 14, 15, or 16</td>
<td>Written Composition &amp; Prose Fiction, or Drama, or Written Composition &amp; Poetry</td>
<td>3</td>
</tr>
<tr>
<td>BUS 51</td>
<td>Business Organization &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>*MTH 21</td>
<td>Survey of Mathematics I</td>
<td>3-4</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>3</td>
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<tr>
<td>DAT 40</td>
<td>Basic Computer Programming</td>
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Third Semester

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<th>Course Title</th>
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<tr>
<td>BUS 41</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>DAT 31</td>
<td>Advanced Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>DAT 41</td>
<td>Advanced Programming</td>
<td>3-4</td>
</tr>
<tr>
<td>MUS or ART</td>
<td>Music or Art</td>
<td>3-4</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
</tr>
<tr>
<td>**CWE 31</td>
<td>Cooperative Work Experience I</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
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Fourth Semester

<table>
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<tbody>
<tr>
<td>ACC 14</td>
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</tr>
<tr>
<td>DAT 42</td>
<td>Advanced Programming &amp; Systems Analysis</td>
<td>3-4</td>
</tr>
<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
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<tr>
<td>SCI or 12</td>
<td>Science</td>
<td>2-3</td>
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<td>**CWE 32</td>
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</table>

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

**Full-time evening students may enroll in CWE courses or with the permission of their curriculum adviser, will substitute 3 credits of MKT 11 or FIN 31.

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

Curriculum Coordinator: Dr. C. Polowczyk

The programs in Chemical Technology and Plastics Technology have been withdrawn as free standing degree programs. An attempt will be made to satisfy students' interest in these programs by reconstructing these programs as options in other degree generating offerings of the College. For further information, see the curriculum coordinator.

EDUCATION ASSOCIATE—Child Care Option

Curriculum Coordinator: Dr. J. L. Rempson

Bronx Community College offers an Education Associate degree (A.A.S.) for students who major in early childhood and elementary education. This degree is also for students who want to concentrate in child care or in the education of the handicapped. At one time only paraprofessionals working in the New York City Public Schools were eligible for the degree; now the degree is available to all students.

The degree prepares students for a paraprofessional position in one or more of the following settings: public schools, day care centers, and/or agencies that service the handicapped.

All courses are competency-based and have a field work component. Competency-based means that the specific knowledge, skills, abilities, and insights to be gained are explicitly stated, together with the method of acquiring and assessing them, and that the student has a chance to apply theoretical knowledge to practical situations wherein the student works directly with children or with school personnel. The intent is to assure that upon satisfactory completion of a course, the student not only has knowledge, skills, abilities, and insights, but is also competent to use them in real situations.
Curriculum Pattern for Education Associate—Child Care Option
(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>
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</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 12 or 11</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>Total</td>
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<td>14</td>
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</tbody>
</table>

Required Areas of Study

Natural Science—One laboratory science course (Biology or Chemistry or Physics or Astronomy) 4

Humanities A—To be chosen from English, Communications, or Modern Languages (at least one course in English) 6-7

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

History and Social Sciences—One course in History, PSY 11 and PSY 41 9

Total 22-23

Specialization Requirements for Education Associate

EDU 10 Child Study 3

*EDU 15, 16, or 17 Reading and Other Language Arts for the Early Childhood and Elementary Years or Teaching Reading in the Primary Grades (N-3) or Teaching Reading in the Middle Grades (4-6) 3

EDU 26 Human Relations in Urban Schools 3

**EDU 40 Field Work Seminar 3

One or two of the following Education electives: 3-6

EDU 12 Contemporary Urban Education

EDU 31 Introduction to Learning Problems

EDU 32 Nature and Needs of the Handicapped

EDU 50 Survey of Creative Experiences for the Early Childhood and Elementary Years

Total 15

Specialization Requirements for Child Care Option

EDU 10 Child Study 3

*EDU 15, 16, or 40 Reading and Other Language Arts for the Early Childhood and Elementary Years or Teaching Reading in the Primary Grades (N-3) or Field Work Seminar 3

EDU 24 Child Care Seminar I 3

EDU 25 Child Care Seminar II 3

EDU 26 Human Relations in Urban Education 3

Total 15

Free Electives—To complete the required minimum of 64 credits or the required maximum of 65 credits 12-13

Transfer credit information: Twelve of the 15 required Education degree credits will be accepted toward Education degree requirements at City College, Hunter College, Lehman College, and other City University of New York senior colleges. Additional Education degree credits will be considered electives and require consultation with the department. For transfer credit information regarding specific Education courses, see department. *Course required depends upon advisement and transfer plans.

**Required upon advisement.
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 City College. Transfer is also possible to other engineering schools, both in and out of the New York City area.

The College offers a Minority Engineering Extended Opportunity Program in cooperation with Cornell University. See page 49 for a description.

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. 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></td>
<td>ART 10 or</td>
<td>Art Survey or</td>
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<td>MUS 10</td>
<td>Music Survey</td>
<td>1</td>
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<td></td>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td></td>
<td>*CHM 11</td>
<td>Chemistry I</td>
<td>4</td>
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<td></td>
<td>PHY 31</td>
<td>Physics I</td>
<td>4</td>
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<tr>
<td></td>
<td>MTH 31</td>
<td>Anal. Geometry &amp; Calculus I</td>
<td>4</td>
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<tr>
<td></td>
<td>ORI 15</td>
<td>Engrg. Sci. Fr. Orientation</td>
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<td>17</td>
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<table>
<thead>
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<th>Credit</th>
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<tbody>
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<td>Chemistry II</td>
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<td>MTH 32</td>
<td>Analytic Geometry &amp; Calculus II</td>
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<td>PHY 32</td>
<td>Physics II</td>
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<td>**MEC 11</td>
<td>Engineering Graphics</td>
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<table>
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<th>Course Title</th>
<th>Credit</th>
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<tbody>
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<td>History of Western Civ.</td>
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<td>MTH 33</td>
<td>Analytic Geometry &amp; Calculus III</td>
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<td>PHY 33</td>
<td>Physics III</td>
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<td>MEC 12</td>
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<th>Course Title</th>
<th>Credit</th>
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<td>Social Science or History</td>
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<td>CMS 11</td>
<td>Fundamental Communications</td>
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<td>HILT 91</td>
<td>Critical Health Issues</td>
<td></td>
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<td>MTH 34</td>
<td>Advanced Calculus</td>
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<td>4</td>
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<tr>
<td>PHY 34</td>
<td>Analytical Mechanics</td>
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<td>PHY 61</td>
<td>Computer Methods for Applied Sciences</td>
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<td>** Total</td>
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<td>18</td>
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</table>

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

**Placement examination will determine if student is to register for MEC 01. Upon recommendation of the instructor, two credits may be earned for MEC 11.

†Any three credits of Social Sciences or History.
ENGGINEERING 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 that 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 such complex electronic equipment 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.

Curriculum Pattern for Electrical Technology
67-68 Credits required for the 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>*MTH 16</td>
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<tr>
<td>PHY 22</td>
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<tr>
<td>**ELC 11</td>
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<tr>
<td>ORI 14</td>
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<td><strong>Total 16</strong></td>
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<table>
<thead>
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<tbody>
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<td>ELC 25</td>
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<th>Third Semester</th>
<th>Credit</th>
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<tbody>
<tr>
<td>MTH 16</td>
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<tr>
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</tr>
<tr>
<td>ELC 35</td>
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<td>MEC 21</td>
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<tr>
<td>±ELC 72 or ELC 82 or ELC 92</td>
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<td>ELC 45</td>
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<tr>
<td>±ELC 75 or ELC 85 or ELC 95</td>
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<td>±ELC 78 or ELC 88 or ELC 98</td>
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</table>

*Students completing equivalent of MTH 16 in high school should choose a free elective approved by adviser.

**Students taking MTH 06 should register for ELC 01. Upon achievement of a grade of C or better, four credits will be earned for ELC 11.

±Placement examination will determine if student is to register for MEC 01. Upon recommendation of the instructor, two credits may be earned for MEC 11.

†Power and Controls Option students take ELC 72, 76, and 78; Communication Option students take ELC 86, 85, and 88; Computer Option students take ELC 92, 96, and 98.

§Any one-credit art or music course for which the student qualifies.

#Choose from Humanities, History or Social Sciences.

$For full-time matriculated students only.
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>Credit</th>
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<tbody>
<tr>
<td>ENG 13</td>
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<td>*ART or MUS</td>
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<td>HIS 12 or 11</td>
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<td>**MTH 16</td>
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<table>
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<td>MTH 17</td>
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<table>
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<th>Third Semester</th>
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<tbody>
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<td>CHM 15</td>
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<tr>
<td>ELC 16</td>
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<td>**Total</td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
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<td>††</td>
<td>3-4</td>
</tr>
<tr>
<td>PEA 11-81 or HLT 91</td>
<td>1 or 2</td>
</tr>
<tr>
<td>MEC 41</td>
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<tr>
<td>MEC 45</td>
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<td>MEC 60</td>
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<td>ORI 44</td>
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<td>**Total</td>
<td>14-18</td>
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</tbody>
</table>

*Any one-credit art or music course for which the student qualifies.

**Students completing equivalent of MTH 16 in high school should choose a free elective approved by the curriculum coordinator.

†Placement examination will determine if student is to register for MEC 01. Upon recommendation of the instructor, two credits may be earned for MEC 11.

††Choose from Humanities, History or Social Sciences.

§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.
LIBERAL ARTS AND SCIENCES

Curriculum Coordinator: Prof. S. D. Ehrenpreis

The Liberal Arts and Sciences curriculum is designed to prepare 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 businessmen, 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
- Dance
- Economics
- English
- French
- German
- Health Education

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**  
*64 Credits required for the A.A. Degree*

**Core Requirements**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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<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, 30 or 31</td>
<td>Mathematics</td>
<td>3-4</td>
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<td>**</td>
<td>Modern Language</td>
<td>4-12</td>
</tr>
<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required Areas of Study**

- Natural Science and Mathematics—To be chosen from Math, Biology, Chemistry, Physics, Science, Astronomy (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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>**</td>
<td>Total</td>
<td>6</td>
</tr>
</tbody>
</table>

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

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

*See language requirements, p. 116.
**LIBERAL ARTS AND SCIENCES TRANSFER OPTIONS**  
(A.A. Degree)

**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>
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</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</td>
</tr>
<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
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<tr>
<td>ART 11 or 12</td>
<td>Introduction to Art</td>
<td>3</td>
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<tr>
<td>ART 15</td>
<td>Design</td>
<td>2</td>
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<tr>
<td>ART 21</td>
<td>Drawing &amp; Painting I</td>
<td>2</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
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</tbody>
</table>

### Second Semester

| ENG         | English Elective                | 3      |
| CMS 11      | Fundamental Communications      | 3      |
| Social Studies |                               | 3      |
| FEA 11-81   | Physical Education (choose one) | 1-3    |
| ART 22      | Drawing & Painting II           | 2      |
| ART 51 or 52| Art of Africa & North America or Oriental Art | 3 |
|             | **Total**                       | **17-18** |

### Third Semester

| MTH         | Mathematics                     | 3-4    |
| ART 31      | Graphic Arts I                  | 2      |
| ART 41      | Ceramics I                      | 2      |
| ART 55      | Modern Art                      | 3      |
|             | **Total**                       | **16-19** |

### Fourth Semester

| ART 32      | Graphic Arts II                 | 2      |
| ART 42      | Ceramics II                     | 2      |
| ART 61      | Art as a Human Value            | 2-0    |
|             | **Total**                       | **16-17** |

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

*Cred will be given for one semester of repeated high school language, provided degree requirement is met. See Language Requirements for A.A. degree, p. 118.*

*To be chosen from Mathematics, Biology, Chemistry, Physics, Astronomy, Science (at least one course to be laboratory science).*
Curriculum Pattern for Liberal Arts and Sciences (Transfer)

Black and Puerto Rican Studies Option
68 Credits required for A.A. Degree

Black Studies Option Curriculum Coordinator:
Prof. Geraldyn Diallo

Puerto Rican Studies Option Curriculum Coordinator: Prof. Sylvia Miranda

Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
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<td>HLT 91</td>
<td>Critical Health Issues</td>
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<tr>
<td>MTH 21, 22, 23, 30, or 31</td>
<td>Mathematics</td>
<td>3-4</td>
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<tr>
<td>*</td>
<td>Modern Language</td>
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</tr>
<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</td>
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</table>

Total 15-23

Required Areas of Study

Natural Science and Mathematics—To be chosen from Math, Biology, Chemistry, Physics or Astronomy (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 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 & Caribbean Dance
PEA 46 Puerto Rican Literature & Culture I & II
CMS 71 Afro-American & Puerto Rican Spokesmen
HIS 39 History of Puerto Rico & The Caribbean
ENG 53 Black Writers in American Literature
ENG 54 Black Poetry
HIS 35 History of Africa
HIS 37 Afro-American History
HIS 38 Afro-American Intellectual History
ART 12 Intro. to Western and Non-Western Culture
MUS 12 Intro. to Music with Emphasis on Non-Western Cultures
ART 51 Art of Africa and North America

**Free Electives**—To complete the required 68 credits

*See language requirements, p. 116.
**These courses may be taken as free electives and/or to fulfill area requirements.
†These credits may be taken in any department or discipline provided that a minimum of 48 credits are in the Humanities, Natural Science and Mathematics, and the Social Sciences.

Curriculum Pattern for Liberal Arts and Sciences (Transfer)

History Option
64 Credits required for A.A. Degree

Curriculum Coordinator: Prof. S. D. Ehrenpreis

Core Requirements

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 13</td>
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<td>CMS 11</td>
<td>Fundamental Communications</td>
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<td>HLT 91</td>
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<tr>
<td>MTH 21, 22, 23, 30, or 31</td>
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<tr>
<td>*</td>
<td>Modern Language</td>
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<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</td>
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</table>

Total 14-23

Required Areas of Study

Mathematics and/or Natural Sciences—To be chosen from Math, Biology, Chemistry, Physics or Astronomy (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)
Social Sciences—Chosen from Economics, Political Science, Philosophy, Psychology and Sociology
Physical Education—activity course

Total 23-27

**Specialization Requirements**

Free Electives—To complete the required 64

*See Liberal Arts and Sciences language requirements, p. 116.
**Suggested grouping for special requirements.
I. American History—HIS 21, 22, 23, 24, 37, 50, 51
II. Area studies—HIS 25, 27, 31, 36, 38, 39
III. General—HIS 11, 12 (these courses will be counted only if not taken to meet Core Requirements 14, 15, 22, 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

Core Requirements

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>MTH 21, 22, 30</td>
<td>Mathematics</td>
<td>3-4</td>
</tr>
<tr>
<td>HIL 12 or 11</td>
<td>History of Western Civ.</td>
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<tr>
<td>Total</td>
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<td>14-27</td>
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</tbody>
</table>

Required Areas of Study

Natural Science and Mathematics—To be chosen from Math, Biology, Chemistry, Physics, Astronomy, 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 (any course for which the student qualifies) | 3 |
Social Sciences and History—Economics, History, Philosophy, Psychology, and Sociology | 6 |
Physical Education—activity course | 1 |
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
- 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 credits

Curriculum Pattern for Liberal Arts and Sciences (Transfer)
Social Science Option—Psychology
64 Credits required for A.A. Degree

Curriculum Coordinator: Dr. A. Galub

Core Requirements

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ENG 13</td>
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<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
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<td>MTH 21, 23, 30</td>
<td>Mathematics</td>
<td>3-4</td>
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<td>HIL 12 or 11</td>
<td>History of Western Civ.</td>
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<tr>
<td>Total</td>
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<td>14-23</td>
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</tbody>
</table>

Required Areas of Study

Natural Science and Mathematics—To be chosen from Math, Biology, Chemistry, Physics, Astronomy, 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 credits

*See language requirements, p. 116.
**Maximum of three credits in Psychology for area requirement.
†Or a substitute approved by the Department of Health and Physical Education.
‡Specializations:
   A. Clinical Psychology—Elect from PSY 31, PSY 35 and 36, PSY 41 and 42, PSY 51 and 52, PSY 61 and 71.
   B. Social Psychology—Elect from PSY 22, PSY 51 and 52.
   C. General Psychology Education—PSY 22, PSY 35 and 36, PSY 41 and 42, PSY 51.

Students wishing to specialize in paraprofessional clinical services must complete PSY 11, PSY 31, PSY 51, PSY 61, PSY 71, plus at least one other Psychology elective.
LIBERAL ARTS AND SCIENCES TRANSFER OPTIONS
(A.S. Degree)

Curriculum Pattern for Liberal Arts and Sciences
(Transfer)
Mathematics Option
64-68 Credits required for A.S. Degree

Curriculum Coordinator: Dr. E. Just

Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<td>HLT 91</td>
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<td>History of Western Civ.</td>
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<tr>
<td>*</td>
<td>Modern Language</td>
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</table>

Total 11-19

**Required Areas of Study

Humanities A—To be chosen from English, Communications, Modern Languages, History, or Social Sciences—One course must be in English 64

Humanities B—To be chosen from Art or Music 3

Physical Education 1

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

Total 15-16

Specialization Requirements

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<th>Semester</th>
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<tr>
<td>MTH 32</td>
<td>Second Semester</td>
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<td>MTH 33</td>
<td>Third Semester</td>
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<td>MTH 34, 35</td>
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<tr>
<td>PHY 31, 32</td>
<td>Physics I and II</td>
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Total 36

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

NOTE: MTH 11 and MTH 16 will not be accepted for credit in the Liberal Arts curricula.

*See language requirements of Liberal Arts and Sciences, A.S. Degree, p. 116.

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

Curriculum Coordinator: Dr. E. Just

<table>
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<td>MTH 32</td>
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<td>PEA 11-81</td>
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<td>ART or MUS</td>
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<td>MTH 45</td>
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*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</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<td>CMS 11</td>
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<td>History of Western Civ.</td>
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</tr>
<tr>
<td>*</td>
<td>Modern Language</td>
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</table>

Total 11-19

**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, 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:

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<tr>
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<th>Title</th>
<th>Credits</th>
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<td>CHM 22, MTH 32</td>
<td>Second Semester</td>
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<td>BIO 11, CHM 31</td>
<td>Third Semester</td>
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Total 34

II. Chemistry:

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<tr>
<td>CHM 22, MTH 31</td>
<td>Second Semester</td>
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<td>CHM 31, CHM 33</td>
<td>Third Semester</td>
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<td>TMTH 32</td>
<td>Third Semester</td>
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Total 34

III. Physics:

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<th>Title</th>
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<td>PHY 32, MTH 32</td>
<td>Second Semester</td>
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<td>††PHY 41 or 51</td>
<td>Fourth Semester</td>
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</table>

Total 33

Free Electives

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

*See language requirements of Liberal Arts and Sciences, A.S. Degree, p. 116.

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

††If level of preparation is adequate, student may take MTH 31, 32, 33.

†††PHY 61 may be accepted in lieu of PHY 41 or 51 by special permission of the curriculum coordinator.
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 A.A.S. Degree

First Semester

<table>
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<tr>
<th>Course Title</th>
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<td>BIO 15 Zoology</td>
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<tr>
<td>BIO 60 Clinical Techniques I</td>
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<tr>
<td>ENG 13 Fundamental Composition</td>
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<tr>
<td>CHM 17 Chem. for Lab Tech. I</td>
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<td>MTH 16 11th Year Mathematics</td>
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Second Semester

<table>
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<tr>
<td>BIO 25 Anatomy &amp; Physiology I</td>
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<tr>
<td>BIO 61 Clinical Techniques II</td>
<td>2</td>
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<tr>
<td>CHM 18 Chem. for Lab. Tech. II</td>
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<tr>
<td>MTH 17 College Algebra</td>
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<td>SOC 11 Sociology</td>
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Third Semester

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<tr>
<td>BIO 26 Anatomy &amp; Physiology II</td>
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<td>BIO 41 Histological Techniques</td>
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<tr>
<td>BIO 62 Clinical Techniques III</td>
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<tr>
<td>CHM 35 Organic Chemistry</td>
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<td>CMS 11 Fundamental Communications</td>
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<td><strong>PEA 11-81</strong> Physical Ed. (choose one)</td>
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Fourth Semester

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<tr>
<td>BIO 43 Microbiology</td>
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<tr>
<td>BIO 63 Clinical Techniques IV</td>
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<td>CHM 41 Biochemistry</td>
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<td>MUS 10</td>
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<td>f Elective</td>
<td>0-4</td>
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<tr>
<td><strong>Total 14-18</strong></td>
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</table>

NOTE: Hospital practicum, if arranged, will be distributed during the third and fourth semesters. Students who successfully complete hospital practicum will receive appropriate credit for their work.

*This curriculum pattern is to be followed by students admitted into this program after September 1975. For those enrolled prior to this date, see the previous catalog.

**PEA 11-81 may be taken during the third or fourth semester.

†To complete the required number of credits for the A.A.S. degree, students may select free electives from any academic department.
NURSING

Curriculum Coordinator: Prof. A. Fuller

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 grade of 50 or higher is achieved, advance standing credits are given. 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, Veteran Administration Hospital, Bronx Psychiatric Center, Albert Einstein College of Medicine Hospital, St. Barnabas Hospital, Misericordia Hospital, Bronx Municipal Hospital Center, North Central Bronx Hospital, Metropolitan Hospital, Frances Schervier Home and Hospital, and Morrisania Neighborhood Family Care Center.

Students enjoy valuable supplementary experience through arrangements with other community agencies, such as clinics, 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.

Effective September 1975, requirements for all students wishing to enter the Nursing curriculum include completion of a one-semester pre-nursing sequence of courses with a minimum index of 2.5, basic skills at a level acceptable to the Nursing Department,* and satisfactory performance on the Pre-Nursing Guidance Test of the National League for Nursing.

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Curriculum Pattern for Nursing—11 Series**

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

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PSY 11</td>
<td>Psychology</td>
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<tr>
<td>BIO 21 or 23</td>
<td>Anatomy &amp; Physiology</td>
<td>4</td>
</tr>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>CMS 11</td>
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</tr>
<tr>
<td></td>
<td><strong>Total 13</strong></td>
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</tr>
</tbody>
</table>

First Semester

| PEA 11-81  | Physical Ed. (choose one) | 1 |
| ART 10 or  | Art Survey or             |   |
| MUS 10     | Music Survey              | 1 |
| NUR 11     | Nursing I                 | 4 |
| **Total 6**|                          |   |

Second Semester

| PEA 11-81  | Physical Ed. (choose one) | 1 |
| BIO 28     | Bacteriology              | 3 |
| NUR 12     | Nursing II                | 10 |
| **Total 16**|                        |   |

Third Semester

| SOC 11     | Sociology                 | 3 |
| NUR 13     | Nursing III               | 10 |
| Elective   |                          | 3-4 |
| **Total 16-17**|                    |     |

Fourth Semester

| CHM 14     | Intro. to Biological & Organic Chemistry | 4 |
| 6NUR 14    | Nursing IV                       | 10 |
| # Elective |                                     | 3-4 |
| **Total 17-18**|                     |     |

*Any necessary remediation must be completed prior to any Nursing course work.
**It is expected that this program will not be offered to new students entering after February 1978.
†Students may take any liberal arts or science course needed to complete the semester's program.
††Choose from English, History, or Modern Language.
§Index must be at least 1.95 to enter NUR 14.
#Choose from English, Science, Mathematics, Modern Languages, Communications, Music, Art, Social Sciences, or Physical Education.
### Pre-Nursing Sequence

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**First Semester**

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<tr>
<td>CHM 14</td>
<td>Life Chemistry</td>
<td>4</td>
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<tr>
<td>MUS 10 or</td>
<td>Music Survey or Art Survey</td>
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<tr>
<td>ART 10</td>
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**Second Semester**

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<tbody>
<tr>
<td>NUR 22</td>
<td>Nurse's Beginning Responsibility</td>
<td>3</td>
</tr>
<tr>
<td>NUR 23</td>
<td>Foundational Nursing Skills/</td>
<td>4</td>
</tr>
<tr>
<td>BIO 24</td>
<td>Human Anatomy &amp; Physiology II</td>
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<tr>
<td>PEA 11-81</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>NUR 24</td>
<td>Major Health Problems I</td>
<td>4</td>
</tr>
<tr>
<td>NUR 26</td>
<td>Clinical Nursing Activities I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 28</td>
<td>Bacteriology</td>
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<td>3</td>
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**Fourth Semester**

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<tbody>
<tr>
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<td>Major Health Problems II</td>
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<tr>
<td>NUR 27</td>
<td>Clinical Nursing Activities II</td>
<td>4</td>
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<tr>
<td>NUR 28</td>
<td>Management in Nursing</td>
<td>4</td>
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<tr>
<td></td>
<td>Elective</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
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</tbody>
</table>

*This new curriculum is designed to operate for a maximum of seven semesters for a limited number of students. It is in no way changes the current Nursing curriculum registered with the State. At the end of the seven-semester period this new curriculum, which is also registered with the State, will be evaluated.

**Students may take any liberal arts or science courses needed to complete the semester's program.

- Choose from English, History, or Modern Languages. Index must be at least 1.95 to enter NUR 28.
- Choose from Art, English, History, Mathematics, Modern Languages, Music, Physical Education (except HLT 91 and 93), Science, Social Sciences, or Communications.

---

### Pre-Nursing Sequence

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<td>Fundamental Communications</td>
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<tbody>
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<td>NUR 21</td>
<td>Essential Process of Nursing:</td>
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</tr>
<tr>
<td>MTH 12</td>
<td>Mathematics</td>
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<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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**Second Semester**

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<th>Dept. &amp; No.</th>
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<tbody>
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**Third Semester**

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**Fourth Semester**

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</thead>
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<td><strong>Total</strong></td>
<td><strong>16-17</strong></td>
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</tbody>
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- Choose from Art, English, History, Mathematics, Modern Languages, Music, Physical Education (except HLT 91 and 93), Science, Social Sciences, or Communications.
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. This includes private lessons at no additional cost in instrumental or vocal areas of the student’s 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 the faculty of Bronx Community College.

Curriculum Pattern for Performing Arts-Music
64-68 Credits required for A.A.S. Degree

First Semester

Dept. & No. | Course Title
---|---
ENG 13 | Fundamental Composition
CMC 11 | Fundamental Communications
MUS 11 or 12 | Intro to Music
MUS 21 or 31 | Choral Performance I or Orchestral Performance I
MUS 41 | Theory I
MUS 51 | Ear Training I
MUS 71 | Secondary Piano I
MUS 83 | Private Instruction I

Total 16

Second Semester

<table>
<thead>
<tr>
<th>Dept &amp; No.</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
</tr>
<tr>
<td>*SCI or MTH</td>
<td>Science or Mathematics</td>
</tr>
<tr>
<td>MUS 22 or 32</td>
<td>Choral Performance II or Orchestral Performance II</td>
</tr>
<tr>
<td>MUS 42</td>
<td>Theory II</td>
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<tr>
<td>MUS 52</td>
<td>Ear Training II</td>
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<tr>
<td>MUS 72</td>
<td>Secondary Piano II</td>
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<td>MUS 81</td>
<td>Recital Performance</td>
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<tr>
<td>MUS 84</td>
<td>Private Instruction II</td>
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<tr>
<td>Elective</td>
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Total 17-18

Third Semester

<table>
<thead>
<tr>
<th>Dept &amp; No.</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>PEA 11-81 or HLT 91</td>
<td>Physical Ed. (choose one) or Critical Health Issues</td>
</tr>
<tr>
<td>MUS 23 or 33</td>
<td>Choral Performance III or Orchestral Performance III</td>
</tr>
<tr>
<td>MUS 43</td>
<td>Theory III</td>
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<tr>
<td>MUS 53</td>
<td>Ear Training III</td>
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<tr>
<td>MUS 61</td>
<td>Keyboard I</td>
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<tr>
<td>MUS 85</td>
<td>Private Instruction III</td>
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<tr>
<td>MUS 91 or 95</td>
<td>Instrumental Ensembles I or Chamber Chorus I</td>
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<tr>
<td>Elective</td>
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Total 16-17

Fourth Semester

<table>
<thead>
<tr>
<th>Dept &amp; No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MUS 24 or 34</td>
<td>Choral Performance IV or Orchestral Performance IV</td>
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<td>MUS 44</td>
<td>Theory IV</td>
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<td>MUS 54</td>
<td>Ear Training IV</td>
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<td>MUS 62</td>
<td>Keyboard II</td>
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<td>MUS 86</td>
<td>Private Instruction IV</td>
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<td>MUS 92 or 96</td>
<td>Instrumental Ensembles II or Chamber Chorus II</td>
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<td>Elective</td>
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</tbody>
</table>

Total 15-17

*Science course to be chosen from Astronomy, Biology, Chemistry, Physics or Science.

**To be chosen from English, Communications, or Art.

†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. 116.

††To be chosen from History or Social Sciences.
PRE-PHARMACY

Curriculum Coordinator: Dr. C. Polowczyk

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 St. John's University and Arnold and Marie Schwartz College of Pharmacy of Long Island University (formerly Brooklyn College of Pharmacy). This curriculum has been recently revised. Therefore, all students expecting to transfer to a pharmacy school must consult their curriculum adviser.

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>
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<tr>
<td>ENG 13</td>
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<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td>BIO 11</td>
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<td>CHM 11</td>
<td>College Chemistry I</td>
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<td>College Algebra</td>
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Second Semester

| BIO 12      | General Biology II                  | 4      |
| CHM 22      | General Chemistry and Qualitative Analysis | 5 |
| 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 12 or T1 | History of Western Civ.         | 3      |
| CHM 31      | Organic Chemistry I               | 4      |
| CHM 33      | Quantitative Analysis             | 4      |
| PHY 11      | College Physics I                 | 4      |
|             | Total                               | 17-18  |

Fourth Semester

| CHM 32      | Humanities Elective                | 3-4    |
| PHY 12      | Organic Chemistry II               | 4      |
|             | College Physics II                 | 4      |
|             | Free Elective                      | 2-3    |
|             | History or Social Science Elective | 3      |
|             | Total                               | 16-18  |
SECRETARIAL STUDIES CURRICULA

Curriculum Coordinator: Prof. K. Takei

The College offers five options in Secretarial Studies—Executive Secretary, Legal Secretary, Medical Secretarial Assistant, School Secretary and Executive Secretary, Word Processing Concentration. 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; and in school offices—assisting administrators.

<table>
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<tr>
<th>Course Title</th>
<th>Credits</th>
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<tr>
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<tr>
<td>Business Mathematics</td>
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<tr>
<td>Typing I</td>
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<tr>
<td>Fundamental Communications</td>
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<td>Human Physiology</td>
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<td>Physical Ed. (choose one)</td>
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<tr>
<td>11th Year Mathematics I</td>
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<tr>
<td>Fundamental Accounting I</td>
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<tr>
<td>Shorthand II</td>
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<td>Typing II</td>
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<td>Free Elective</td>
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<td>Shorthand IV</td>
<td>3</td>
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<td>Secretarial Practice</td>
<td>2</td>
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<td>Cooperative Work Exp. I</td>
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<tr>
<td>Shorthand IV</td>
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</tr>
<tr>
<td>Secretarial Practice</td>
<td>2</td>
</tr>
<tr>
<td>Cooperative Work Exp. I</td>
<td>2</td>
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<tr>
<td>Business &amp; Commerce Elective</td>
<td>3</td>
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<td>Free Electives</td>
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Curriculum Pattern for Executive Secretary Option
65-68 Credits required for A.A.S Degree

First Semester

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<th>Dept. &amp; No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 13</td>
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<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</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>BUS 11</td>
<td>Business Mathematics</td>
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<td>TYP 11</td>
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<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
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Second Semester

<table>
<thead>
<tr>
<th>Course Title</th>
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<tbody>
<tr>
<td>**BIO 18 Human Physiology</td>
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<tr>
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<tr>
<td>TMTH 11 11th Year Mathematics</td>
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<tr>
<td>ACC 11 Fundamental Accounting</td>
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<td>SHO 12 or 16 Shorthand II</td>
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<td>TYP 12 Typing II</td>
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<td>ART or MUS Art or Music</td>
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<td>COM 31 Business Communications</td>
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<td>SHO 13 or 17 Shorthand III</td>
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Third Semester

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<tr>
<td>SHO 14 or 18 Shorthand IV</td>
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<tr>
<td>SEC 41 Secretarial Practice</td>
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<td>CWE 31 Cooperative Work Exp. I</td>
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<tr>
<td>§ Business &amp; Commerce Elective</td>
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<tr>
<td>Free Electives</td>
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Fourth Semester

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SHO 14 or 18 Shorthand IV</td>
<td>3</td>
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<td>Social Science Elective</td>
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<td>Free Electives</td>
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</tbody>
</table>

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

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

†Students may qualify for advanced math placement resulting from evaluation of high school math background.

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

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

#CWE 31 may be waived with the approval of the curriculum coordinator and another course substituted.
### Curriculum Pattern for Executive Secretary Option
**Word Processing Concentration**

*64-65 Credits required for 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 12 or 11</td>
<td>History of Western Civ.</td>
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<tr>
<td>TYP 11</td>
<td>Typing I</td>
<td>2</td>
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<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
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</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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**Total 15**

#### Second Semester

| MSCI        | Any Science Course                   | 3-4    |
| ACC 11      | Fundamental Accounting I             | 4      |
| TYP 12      | Typing II                            | 2      |
| MTH 11      | 11th Year Mathematics I              | 3      |
| ORI 41      | Career Orientation & Management      | 0      |
| BUS 51      | Business Organization &              | 3      |
|            | Management                           |        |

**Total 15-16**

#### Third Semester

| ART 11 or 12| Introduction to Art or Music          | 3      |
| MUS 11 or 12| Introduction to Music                 | 3      |
| TYP 13      | Typing III                            | 2      |
| WPR 11      | Machine Transcription I              | 3      |
| COM 31      | Business Communications               | 3      |
| PSY 11 or   | Psychology or Sociology or            |        |
|            | Clinical Art                         |        |
| CMS 15      | Public Speaking & Critical Listening | 3      |
| WPR 21      | Word Processing Administration        | 3      |

**Total 17**

#### Fourth Semester

| TYP 14      | Typing IV                             | 3      |
| WPR 12      | Machine Transcription II              | 3      |
| CWE 31      | Cooperative Work Exp. I               | 2      |
| WPR 22      | Word Proc. Office Simulation          | 3      |
|            | Elective                              |        |
|            | Secretarial Studies or                |        |
|            | Business & Commerce Elective          | 3      |

**Total 17**

---

*Students receiving exemption in Typewriting need 65 credits; others require 66 credits."

**Students considering transfer to a senior college should consult their curriculum adviser for science requirement."

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

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

‡Students may qualify for advanced math placement resulting from evaluation of high school math background."

§CWE 31 may be waived with the approval of the curriculum coordinator and another course substituted.
### Curriculum Pattern for Medical Secretarial Assistant 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>
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<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
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</tr>
<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</td>
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<tr>
<td>BIO 18</td>
<td>Human Physiology</td>
<td>4</td>
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<tr>
<td>TYP 11</td>
<td>Typing I</td>
<td>2</td>
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<tr>
<td>HLT 91</td>
<td>Critical Health Issues</td>
<td>2</td>
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<tr>
<td>BUS 11</td>
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Total 17

#### Second Semester

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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>PSY 11</td>
<td>Psychology</td>
<td>3</td>
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<tr>
<td><strong>MTH 11</strong></td>
<td>11th Year Mathematics I</td>
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</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>TYP 12</td>
<td>Typing II</td>
<td>2</td>
</tr>
<tr>
<td>BIO 22</td>
<td>Medical Terminology</td>
<td>2</td>
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<tr>
<td><strong>ORI 42</strong></td>
<td>Career Orientation</td>
<td>0</td>
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Total 17

#### Third Semester

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
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<td>ART or MUS</td>
<td>Art or Music</td>
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<tr>
<td>TYP 13</td>
<td>Typing III</td>
<td>2</td>
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<tr>
<td>BIO 46</td>
<td>Clinical Techniques I</td>
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</tr>
<tr>
<td>SEC 34</td>
<td>Medical Office Practice I</td>
<td>2</td>
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<tr>
<td>COM 31</td>
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<tr>
<td>PSY</td>
<td>Clinical Psychology Elective</td>
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Total 18

#### Fourth Semester

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>SEC 35</td>
<td>Medical Office Practice II</td>
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<tr>
<td>BIO 47</td>
<td>Clinical Techniques II</td>
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<td>SOC 11</td>
<td>Sociology</td>
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<tr>
<td>LAW 45</td>
<td>Medical Law</td>
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<tr>
<td><strong>CWE 31</strong></td>
<td>Cooperative Work Exp. I</td>
<td>2</td>
</tr>
<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 16

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**Students may qualify for advanced math placement resulting from evaluation of high school math background.

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

‡‡CWE 31 may be waived with the approval of the curriculum coordinator and another course substituted.

#### Curriculum Pattern for School 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>
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</thead>
<tbody>
<tr>
<td>ENG 13</td>
<td>Fundamental Composition</td>
<td>3</td>
</tr>
<tr>
<td>HIS 12 or 11</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>
<td>2</td>
</tr>
<tr>
<td>CMS 11</td>
<td>Fundamental Communications</td>
<td>3</td>
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</tbody>
</table>

Total 17

#### Second Semester

<table>
<thead>
<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td><strong>BIO 18</strong></td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td><strong>MTH 11</strong></td>
<td>Intro. College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 11</td>
<td>Fundamental Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>SHO 12 or 16</td>
<td>Shorthand II</td>
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</tr>
<tr>
<td>TYP 12</td>
<td>Typing II</td>
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<tr>
<td>PEA 11-81</td>
<td>Physical Ed. (choose one)</td>
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<tr>
<td><strong>ORI 42</strong></td>
<td>Career Orientation</td>
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Total 17

#### Third Semester

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<tr>
<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<tr>
<td>SHO 13 or 17</td>
<td>Shorthand III</td>
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<td>TYP 13</td>
<td>Typing III</td>
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<tr>
<td>SEC 47</td>
<td>Education Problems of School Secretaries I</td>
<td>2</td>
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<td></td>
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Total 16

#### Fourth Semester

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<th>Course Title</th>
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<tbody>
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<td>SEC 45</td>
<td>School Records &amp; Accounts</td>
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<tr>
<td>SHO 14 or 18</td>
<td>Shorthand IV</td>
<td>3</td>
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<tr>
<td>SEC 41</td>
<td>Secretarial Practice</td>
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<td><strong>CWE 31</strong></td>
<td>Cooperative Work Exp. I</td>
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<tr>
<td></td>
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</table>

Total 17-18

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

§CWE 31 may be waived with the approval of the curriculum coordinator and another course substituted.
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 senior colleges of The City University of New York.

Curriculum Pattern for H.S. Teaching Option: Secretarial Studies
*65-68 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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<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>
<td>1</td>
</tr>
<tr>
<td>HIS 12 or 11</td>
<td>History of Western Civ.</td>
<td>3</td>
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<tr>
<td>**</td>
<td>Modern Language</td>
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<td>SCO 11 or 15</td>
<td>Shorthand I (Gregg or Pitman)</td>
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</tr>
<tr>
<td>TYP 11</td>
<td>Typing I</td>
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<td></td>
<td><strong>Total</strong></td>
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Second Semester

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<th>Course Title</th>
<th>Credit</th>
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<td>Critical Health Issues</td>
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<tr>
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<td>Art or Music Course</td>
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<tr>
<td>BUS 11</td>
<td>Business Mathematics</td>
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<tr>
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<td>Shorthand II</td>
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Third Semester

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<th>Dept. &amp; No.</th>
<th>Course Title</th>
<th>Credit</th>
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<td>IMTH</td>
<td>Mathematics</td>
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<td>HSCI</td>
<td>Laboratory Science</td>
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<tr>
<td>SCO 13 or 17</td>
<td>Shorthand III</td>
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<td>TYP 13</td>
<td>Typing III</td>
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<td>15-16</td>
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Fourth Semester

<table>
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<th>Course Title</th>
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<td>MCC 11 or</td>
<td>Management or</td>
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<tr>
<td>LAW 41</td>
<td>Fundamental Accounting I or</td>
<td>3-4</td>
</tr>
<tr>
<td>SEC 41</td>
<td>Business Law</td>
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<tr>
<td>SCO 14 or 18</td>
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<td>Shorthand IV</td>
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<td><strong>Total</strong></td>
<td>17-18</td>
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</table>

*Students receiving exemption in Shorthand and/or Typewriting need 65 credits; others require 68 credits.
**Students must consult counselor for language requirements of senior college to which they plan to transfer.
†To be chosen from MTH 21, 22, 23, 30 or 31.
‡‡To be chosen from AST 12, BIO 11, CHM 11, PHY 11, or SCI 11.
§Accounting 11 required for students planning to transfer to Baruch College.
#To be chosen from English, Communications, Economics, Political Science, Psychology, Philosophy, Sociology, or History.
¶May be waived for evening students with approval of curriculum coordinator.
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 a 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 (clinical) indicates supervised, individualized clinical experience in a hospital setting, including group and individual instruction.

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

Chairman: Professor Francis C. Costello
Professor: K. Prestwidge
Associate Professors: R. Heller, R. Thomas
Lecturers: V. Calabria, F. Haase, L. Rice.

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.

BIO 21 Human Anatomy and Physiology 3 Lect 3 Lab 4 cr
Anatomy and physiology of the integumentary, skeletal, muscular, digestive, nervous, circulatory, excretory, respiratory, endocrine and reproductive systems of the human body; special senses.

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.

The Department of Biology and Medical Laboratory Technology requires that students complete all remedial requirements before taking any Biology courses.

BIO 23 Human Anatomy and Physiology I 3 Lect 3 Lab 4 cr
An integrated lab-lecture method for the study of gross and microscopic anatomy, basic chemistry, fluid and electrolyte balance, normal physiological processes, integumentary, skeletal, digestive, muscular, circulatory and respiratory systems. For Nursing students only.

BIO 24 Human Anatomy and Physiology II 3 Lect 3 Lab 4 cr
An integrated lab-lecture method for the study of gross and microscopic anatomy, normal physiological processes, reproductive, excretory, neuroendocrine systems, special senses, embryology, genetics, and aging. Prerequisite: BIO 23. For Nursing students only.

BIO 25 Anatomy and Physiology I 3 Lect 3 Lab 4 cr
Cellular and organic approach to the integumentary, skeletal, muscular, circulatory, digestive, nervous and respiratory systems of the human. Prerequisites: CHM 17, BIO 15.

BIO 26 Anatomy and Physiology II 3 Lect 3 Lab 4 cr
Study of human excretory, reproductive and endocrine systems; electrolyte and water balance; the senses; metabolism, immunity. Recent advances in prevention of disease. Prerequisites: CHM 18, BIO 25.

BIO 28 Bacteriology 2 Lect 3 Lab 3 cr
Isolation, culturing and identification of pathogenic and nonpathogenic bacteria; clinical observation of bacterial effects on human organism. For Nursing students only.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 31</td>
<td>Embryology</td>
<td>2 lec 4 lab 4 cr</td>
<td>Not offered 1977-78.</td>
</tr>
<tr>
<td>BIO 41</td>
<td>Histological Techniques*</td>
<td>2 lec 4 lab 4 cr</td>
<td>Study and preparation of vertebrate tissues and organs for microscopic study, with emphasis on clinical histologic techniques. Prerequisites: M.L.T.-CHM 17, 18, BIO 26.</td>
</tr>
<tr>
<td>BIO 43</td>
<td>Microbiology*</td>
<td>2 lec 4 lab 4 cr</td>
<td>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.</td>
</tr>
<tr>
<td>BIO 46</td>
<td>Clinical Techniques for Medical Secretaries I**</td>
<td>1 lec 3 lab 2 cr</td>
<td>Use and care of such instruments as the microscope, sphygmomanometer, basal metabolator, electrocardiograph, sterilizer, centrifuge and balance; urinalysis—physical, chemical and microscopic tests. Prerequisite: BIO 18.</td>
</tr>
<tr>
<td>BIO 47</td>
<td>Clinical Techniques for Medical Secretaries II†</td>
<td>1 lec 3 lab 2 cr</td>
<td>Use and care of various medical instruments; sterile techniques; analysis of blood—complete blood count, hematocrit, sedimentation rate, blood glucose. Prerequisite: BIO 46.</td>
</tr>
<tr>
<td>BIO 51</td>
<td>Fundamentals of Ecology</td>
<td>2 lec 4 lab 4 cr</td>
<td>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.</td>
</tr>
<tr>
<td>BIO 55</td>
<td>Genetics and Man</td>
<td>3 rec 3 cr</td>
<td>Principles of heredity, an historical view culminating in modern genetics. Cytogenetics and the physical basis of heredity; Mendelian and non-Mendelian genetics; molecular and biochemical genetics; chromosomal aberrations; sex chromosomes; blood groups; population genetics; social impact of genetic control. Prerequisite: Any one of the following: BIO 11, BIO 15, BIO 21, BIO 23 or BIO 24.</td>
</tr>
<tr>
<td>BIO 60</td>
<td>Clinical Techniques I†</td>
<td>1 lec 3 lab 2 cr</td>
<td>Use of basic laboratory equipment; glassware and tools; knowledge and skills—physical, chemical and microscopic examinations; introduction to blood banking—blood typing, ABO, Rh. Corequisites: CHM 17, BIO 15.</td>
</tr>
<tr>
<td>BIO 61</td>
<td>Clinical Techniques II†</td>
<td>1 lec 3 lab 2 cr</td>
<td>Complete blood count, normal and abnormal smears; basic routine blood procedures; sickle cell, sedimentation rate, reticulocyte count; coagulation studies—prothrombin time, clot retraction. Prerequisite: BIO 60; corequisites: CHM 18 BIO 25.</td>
</tr>
<tr>
<td>BIO 62</td>
<td>Clinical Techniques III†</td>
<td>1 lec 3 lab 2 cr</td>
<td>Use of volumetric equipment and spectrophotometers. Clinical laboratory tests—glucose; total proteins and albumin, blood urea nitrogen; electrolytes; liver function tests; enzymes used in cardiac profile. Emphasizes on clinical techniques, basic principles and sources of error. Prerequisite: BIO 61; corequisites: CHM 35, BIO 26.</td>
</tr>
<tr>
<td>BIO 63</td>
<td>Clinical Techniques IV†</td>
<td>1 lec 3 lab 2 cr</td>
<td>Basic principles; operation, malfunction and proper maintenance of instruments used in clinical laboratory: Coulter counter, electrophoresis, recorders, atomic absorption spectroscopy, fluorometry, flame photometry, autoanalyzer. Prerequisite: BIO 62, corequisite: CHM 41.</td>
</tr>
</tbody>
</table>

*Students who have acquired knowledge and skills through work experience or training in the armed forces may be eligible for exemption in these courses. Such exemption will be granted with credit, grade, and inference value after the student has passed departmental examinations. For further information, the student should consult the Department Chairman. **Generally offered during Day Session, Fall Semester and Evening Session, Spring Semester. †Generally offered during Day Session, Spring Semester, and Evening Session, Fall Semester. ‡For students admitted into the Medical Laboratory Technology curriculum after September 1975. Those admitted prior to this date should refer to the previous catalog for descriptions of BIO 35 and 36. |
BUSINESS AND COMMERCE

Chairman: Professor Martin K. May
Professors: A. Hirshfield, W. Hynes, M. Krieger, M. Pollack, S. Resse
Associate Professors: B. Cutler, J. Nagel, N. Prisand, H. Weiman
Lecturer: B. Reshen

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 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.

*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 and Basic Wiring
Not offered 1977-78.

DAT 21  Advanced Wiring Concepts
Not offered 1977-78.

DAT 22  Machine Accounting Applications I
8 lab 3 cr
Not offered 1977-78.

DAT 23  Machine Accounting Applications II
8 lab 3 cr
Not offered 1977-78.

DAT 30  Introduction to Systems
3 lect 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 lect 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 lect 2 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 lect 2 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
3 lect 2 lab 4 cr
Sophisticated problems in Assembly Language. Use of Tape and Disc Operation. 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
3 lect 2 lab 4 cr
Not offered 1977-78.
**Finance**

IN 31 Principles of Finance 3 rec 3 cr
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.

**Business Law**

AW 41 Business Law 3 rec 3 cr
Survey of American legal system; principles of law and application of Uniform Commercial Code involved in contracts; application of principles to typical business problems.

**Legal Procedures**

AW 45 Medical Law* 3 rec 3 cr
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.

**Textiles**

MKT 13 Textiles 4 rec 4 cr

**Fashion Markets and Trends**

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.

**Consumer Problems and Personal Finance**

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.

**Consumer Behavior**

MKT 18 Consumer Behavior 3 rec 3 cr
Introduction to basic characteristics of consumers that 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.

**Salesmanship**

MKT 31 Salesmanship 2 rec 2 cr
Not offered 1977-78.

*Offered during Day Session, Fall Semester; and Evening Session, Spring Semester.

**Offered during Day Session, Spring Semester; and Evening Session, Fall Semester.
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, price lining, 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; layouts, budgeting, credit procedures, maintenance, personnel employment, training and management; receiving and marking procedures; security; public relations. Prerequisite: MKT 11.

MKT 43 Advertising and Sales Promotion** 3 rec 3 cr
Advertising department organization and procedure; planning, preparation and coordination of external and internal methods of various types of advertising; evaluation and selection of media; development and integration of sales promotion techniques and advertising plans. Prerequisite: MKT 11.

MKT 53 Current Retailing Concepts 2 rec 2 cr
Not offered 1977-78.

MKT 61 International Travel 2 cr
Not offered 1977-78.

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 markets, advertising, financing, foreign legal and cultural restrictions, and role of government in fostering international business. Prerequisite: MKT 11.

MKT 71 Tourism 3 rec
Construction and development of the tourism industry as an economic activity examined from both governmental and private viewpoints. The interrelationships of national, regional, state, and local elements of the industry are evaluated. 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
An intensive study and examination of various carriers engaged in the business of travel and tourism (bicycle, railroad, bus, automobile, charter and regular flights, hotels) and of the various regulatory agencies that affect the operations of travel and tourism. Prerequisite: MKT 11. Prerequisites: sales, supervision, personnel, promotion, legal responsibilities, pricing, and operational aspects. Prerequisite: MKT 11.

MKT 73 Wholesale Tour Operation 3 rec
Not offered 1977-78.

MKT 74 Retail Travel Agency Operation 3 rec
Not offered 1977-78.

*Offered during Day Session, Spring Semester, Evening Session, Fall Semester.
CHEMISTRY AND
CHEMICAL TECHNOLOGY

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

CHM 14 Introduction to General, Organic
and Biological Chemistry
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 or BIO 28 for students taking the Nursing 11 series, or permission of the department; placement exam or CHM 02 for students in the Nursing 21 series, or permission of the department.

CHM 15 Fundamentals of Chemistry
Fundamental principles and theories of chemistry; emphasis on topics of interest to the technologies. Required of Mechanical Technology students. Can satisfy one semester of laboratory science in Liberal Arts programs.

*Students who have completed one year of chemistry in high school and plan to major in Engineering Science, Medical Laboratory Technology, Pre-Pharmacy, Pre-Medicine, Pre-Dentistry, and other science curricula, are required to take a placement examination. Students with an insufficient background in high school chemistry, or students who fail the placement examination and wish to specialize in one of the above-mentioned curricula, are required to take CHM 02. Nursing students should see their curriculum adviser to determine whether or not they must take CHM 02. This course is not intended for non-science Liberal Arts students.

**Required for students in: Engineering Science, Medical Laboratory Technology, Pre-Pharmacy, Pre-Medicine, Pre-Dentistry, and other science curricula. This course is not intended for non-science Liberal Arts students.
CHM 17 Chemistry for Laboratory Technologies | 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, electrochemistry, properties of nonmetallic 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 curriculum.) Prerequisite for CHM 17: Placement exam or CHM 02; for CHM 18: CHM 17.

CHM 22 General Chemistry with Qualitative Analysis | 1 rec 2 lect 6 lab 5 cr
Emphasis on solutions, equilibria, acids and bases, ionization equilibria, solubility product, complexions, oxidation-reduction and survey of metallic and nonmetallic elements, organic and nuclear chemistry. Laboratory: qualitative analysis of solutions; salts and alloys. Prerequisite: CHM 17.

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

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

CHM 32 Organic Chemistry II | 1 rec 2 lect 4 lab 4 cr
A continuation of CHM 31. Prerequisite: CHM 31.

CHM 33 Quantitative Analysis | 2 lect 6 lab 4 cr
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
Nomenclature, structure, properties and reactions of typical organic molecules. Laboratory: preparation, properties and identification of typical organic compounds. Prerequisite: CHM 12 or CHM 18.

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

CHM 43 Physical Chemistry | 1 rec 2 lect
Not offered 1977-78.

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

CHM 45 Industrial and Environmental Methods of Analysis† | 2 rec 4 lab
Analysis of representative products of chemical plant operations as well as water and environmental materials, using typical industrial equipment. Methods according to ASTM, AOAC, EPA and OSHA. Prerequisites: CHM 31, CHM 33. Note: Students in their final semesters substitute CHM 61.

*Offered during Day Session, Fall and Spring Semester and Evening Session, Spring Semester only.
**Offered during Day Session, Fall and Spring Semester and Evening Session, Fall Semester only.
†Offered during Evening Session, Spring Semesters odd-numbered years.
Introduction to Chemical Industry
Not offered 1977-78.

Chemistry: Cultural Approach I
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 nonmetallic and metallic elements, nuclear chemistry, organic chemistry. Laboratory chemical techniques and principles, qualitative analysis. Emphasis on the humanistic approach. Recommended for non-science Liberal Arts students. Prerequisites: MTH 05 or high school equivalent and high school chemistry or permission of adviser.

Chemistry for Citizens Laboratory
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). Recommended for non-science Liberal Arts students.

Seminar in Chemical Technology*
An opportunity for chemical technology students to work in an industrial laboratory of a cooperating employer. Students are compensated at the prevailing wage rate for the job they hold. Accompanying seminar integrates chemical principles with the practical aspects of industrial analysis, methods, and processes. Experiences and problems encountered by students in their work will be discussed and analyzed. Satisfactory ratings by industrial supervisor and seminar instructor required. Prerequisites: Fully matriculated student status in Chemical Technology, CHM 33, and departmental approval.

CHM 61 Cooperative Work
Experience and 3 rec 6 cr
20 hrs field work
Seminar in Chemical Technology*
An opportunity for chemical technology students to work in an industrial laboratory of a cooperating employer. Students are compensated at the prevailing wage rate for the job they hold. Accompanying seminar integrates chemical principles with the practical aspects of industrial analysis, methods, and processes. Experiences and problems encountered by students in their work will be discussed and analyzed. Satisfactory ratings by industrial supervisor and seminar instructor required. Prerequisites: Fully matriculated student status in Chemical Technology, CHM 33, and departmental approval.
Plastics Technology

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

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

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

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

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

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

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

PLS 38 Fabrication 2 rec 4 lab 2 cr
Application of blow molding and injection forming methods and principles, material selection, die and tool design and production techniques. Reinforced plastics, hand and spray layup, compression molding. Customer and vendor relationships. Prerequisite: PLS 37.

PLS 41 Materials Testing Laboratory 2 rec 3 lab 3 cr
Effects of chemical and molecular structures, molecular weight distribution, glass transitions and crystallinity on physical and chemical properties. Tensile, impact, fatigue and environmental testing equipment. Independent 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 1 cr 2 lab 2
Beginnings of science and plane motion, the laws of motion, gravity, energy and heat, matter and its chemical structure of the atom.

SCI 12 Principles of Science II 1 rec 1 cr 2 lab 2
Introduction, chemical calculations, electronic structure of atoms, ionic and covalent compounds, solutions, acids, bases, equilibria, oxidation-reduction, nonmetals, metallic state, organic chemistry, minerals and rocks, geological processes, astrophysics.

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

Chairman: Professor Robert King
Professors: W. Duncan, N. Gilroy
Associate Professors: P. Gelb, A. Lande, I. Ronson,
M. Sterganopoulos
Assistant Professors: J. Coppolino, A. Cosentino,
M. Diehl, I. Graham, G. Greenfield, L. Powell,
R. Smith

CMS 01 Speech Clinic 1 rec 0 cr
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, or referral by department faculty. Required course for students where evaluation indicates need.

CMS 11 Fundamentals of Interpersonal Communication 3 rec 3 cr
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 13 Phonetics 3 rec 3 cr
Study of contemporary American English through phonetic analysis; practice in broad and narrow transcription, using the International Phonetic Alphabet, and exercises designed to develop auditory and kinesthetic sensitivity to phonetic distinctions.

CMS 14 Introduction to Mass Communication 3 rec 3 cr
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 15 Public Speaking and Critical Listening 3 rec 3 cr
Principles and practice of contemporary forms of public speech communication: informative, persuasive, inspirational, and entertaining; principles and practice of critical listening; analysis and evaluation of public communication.

CMS 16 Small Group Discussion 3 rec 3 cr
Principles and practice of small group discussion; investigation and analysis of problems in selected group situations.

CMS 21 Voice and Diction: Communication in the Professional Environment 2 rec 2 cr
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 3 rec 3 cr
Principles and practices of argumentation and debate, including the nature of persuasion, stating and analyzing propositions, identifying issues, collecting materials, making briefs, preparing the case, evidence and reasoning, refutation, style and delivery. Individual conferences. Prerequisite: CMS 11.
CMS 31 Oral Interpretation of Literature* 3 rec 3 cr
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 2 rec 1 cr
Not offered 1977-78.

CMS 61 Communicative Techniques in the Democratic Procedures 3 rec 3 cr
Not offered 1977-78.

CMS 71 Afro-American and Puerto Rican Spokesmen** 3 rec 3 cr
Analysis and evaluation of the messages and rhetorical methods of selected Afro-American and Puerto Rican spokesmen. Field work.

CMT 41 Play Production I † 3 rec 3 cr
Elements of acting, directing, stage managing, lighting, sets, costume and make-up, with emphasis on directing and stage managing. Dramatic productions each semester in which all students in the course participate, rehearsals in addition to the class hours, by arrangement. Field work.

CMT 42 Play Production II 3 rec 3 cr
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 areas of study. 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 3 rec 3 cr
Not offered 1977-78.

CMT 51 Acting I 3 rec 3 cr
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
Not offered 1977-78.

CMT 54 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 8ion Council on the Arts in a community center supervising and instructing a 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, as a major source of influence upon our 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.
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. Permission of instructor required.

Continuation of Man and Television I. Seminars and independent student projects designed to explore the cultural impact of television on our society. Permission of instructor required.

ENGINEERING TECHNOLOGIES

Chairman: Professor Phyllis B. Berger
Professors: F. Berger, N. McLaughlin, H. Tyson
Associate Professors: S. Lawrence, S. Ritterman, O. Rodzianko
Assistant Professor: A. Brent, G. Gean

Electrical Technology

ELC 01 Basic Electricity 4 rec 3 lab 0 cr
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. (Upon completion of course requirements with a grade of C or better, 4 credits will be earned for ELC 11.) Corequisite: MTH 06.

ELC 11 Introduction to Electric Circuits 3 rec 3 lab 4 cr
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 Electronics & Instrumentation**  1 rec 2 lab 2 cr  
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**  3 rec 3 lab 4 cr  
Semiconductor and vacuum tubes as physical devices and circuit elements; rectification, filtering and amplification. Emphasis on transistors. Laboratory: experiments 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**  3 rec 3 lab 1 cr  
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 to radio broadcasting and high fidelity techniques. Experiments include frequency response, feedback, amplifiers, oscillators. Prerequisite: ELC 25; prerequisite: MTH 18; prerequisite or corequisite: PHY 21.

ELC 38  **Electric Product Design and Measurements**  6 lab 2cr  

ELC 45  **Electronic Project Laboratory**  1 rec 3 lab 2 cr  
Application of electrical and electronic theory to the solution of practical laboratory problems. Students work as technicians under direction of instructor who acts as project engineer. Project include design of circuits, fabrication and testing of breadboards and prototypes, the submission of tests, data and reports. Continuation of ELC 38, microelectronic equipment utilization. Prerequisites: ELC 35, ELC 38; corequisites: ELC 72 (Power and Control option only), ELC 82 (Communication option only), ELC 92 (Computer option only).

ELC 72  **Electric Machines and Power**  3 rec 3 lab 1 cr  
Not offered 1977-78.

ELC 75  **Electrical Instrumentation**  3 rec 3 lab 1 cr  
Not offered 1977-78.

ELC 78  **Electrical Control Systems**  3 rec 3 lab 1 cr  
Not offered 1977-78.
Networks and Transmission Lines 3 rec 3 lab 4 cr
Use of lumped circuit elements in coupled circuits and filters to obtain specified current and voltage characteristics with variation of frequency, extended to distributed parameters in transmission lines. (Required for Communication option only.) Prerequisite: ELC 21; corequisite: MTH 18.

Microwaves 3 rec 3 lab 4 cr
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; prerequisite or corequisite: ELC 35.

Communication Systems 3 rec 3 lab 4 cr
Principles of pulse and digital techniques applicable to modern practices; modulation, detection, and reception to analyze the electrical characteristics of audio, radio, television, telemetering, and radar communication systems. (Required for Communication option only.) Prerequisites: ELC 82, MTH 18; corequisite: ELC 85, prerequisite or corequisite: ELC 35.

Pulse and Digital Circuits 3 rec 3 lab 4 cr
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.

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.) Prerequisite: ELC 92, ELC 35.

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

Introduction to Engineering Graphics 1 lect 4 lab 0 cr
(For students with difficulty in spatial visualization ability.) Fundamental engineering drawing and industrial drafting room practice. Lettering, orthographic projection, auxiliary views, pictorials, sections and conventions, threads and fasteners, detail drawing, dimensioning and electrical drawings. (Upon completion of course requirements with a grade of C or better 2 credits will be earned for MEC 11.) Prerequisite or corequisite: MTH 05.

Elementary Problem-Solving 3 rec 0 cr
Not offered 1977-78.

Basic Engineering Graphics 1 lect 3 lab 2 cr
Fundamental engineering drawing and industrial drafting room practice. Lettering, orthographic projection, auxiliary views, sections and conventions, pictorials, threads and fasteners, tolerances, detail drawing, dimensioning and electrical drawings; introduction to computer-aided graphics. Prerequisite or corequisite: MTH 05.
MEC 12 Applied Engineering Graphics
1 lecture 3 lab 2 cr
Introduction to engineering drawing practices in specific fields. Such selected specialties as gears, cams, piping, welding, structural and architectural drawing. Prerequisite: MEC 11.

MEC 21 Engineering Manufacturing Processes
1 lecture 3 lab 2 cr
Basic engineering processes and unit production measurements. Fabrication of mechanical products in small quantities. Processes included are casting, forging, welding, drilling, lathe work, milling, woodworking, forming of plastics and sheet metal, and heat treating. Laboratory practice with hand and machine tools.

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

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

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

MEC 31 Machine Design
2 lecture 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 of basic mechanisms and power transmission, linkage mechanism, cams, shafting, power screws, gears and gear trains and application of digital computer. Prerequisite: MEC 12; corequisite: MTH 28.

MEC 33 Thermodynamics and Fluid Dynamics
2 rec 3 lab 3 cr
Energy and energy interchange; ideal and actual thermodynamic cycles: Carnot, Otto, Rankin, and Reversed Carnot. Ids 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 21; corequisite: CHM 15.

MEC 41 Metallurgy and Engineering Materials
2 rec 2 lab 3 cr
Physical metallurgy, properties of ferrous and nonferrous metals, as well as nonmetallic materials and plastics. Laboratory: preparation of samples, metallographic examination of metals, and testing for various properties of metallic and nonmetallic materials. Prerequisite: MEC 21, MEC 27, CHM 15.

MEC 45 Mechanical Projects Laboratory
3 lab
Application of mechanical engineer theory to the solution of practical laboratory problems. Projects include design, fabrication and testing of prototype mechanical or electromechanical equipment. Students work as technicians under direction of instructor who acts as project engineer. Prerequisite: MEC.

*Generally offered during Day Session, Fall Semester of odd-numbered years, and Evening Session, Spring Semester of even-numbered years.

**Offered during Day Session, Spring Semester of even-numbered years; and Evening Session, Spring Semester of odd-numbered years.
MEC 51 Descriptive Geometry
Not offered 1977-78.

MEC 61 Advanced Machine Design
Not offered 1977-78.

MEC 62 Tool Design
Not offered 1977-78.

MEC 63 Refrigeration and Air Conditioning
Not offered 1977-78.

MEC 64 Heating and Ventilating
Not offered 1977-78.

MEC 65 Industrial Management
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
Not offered 1977-78.

ORI 14 Technology College Orientation
1 lect 0 cr

ORI 15 Engineering Science College Orientation
1 lect 0 cr

ORI 44 Technology Career Orientation
Special program to acquaint senior Engineering Technicians with the employment market and to assist both electrical and mechanical senior technicians in preparation of resumes. On-campus employment interviews conducted by industrial representatives. Individual guidance in transferring to Bachelor of Technology programs and other continued education offerings.

ORI 45 Engineering Science Senior Orientation
Not offered 1977-78.
ENGLISH

Chairman: Professor Lillian Gottesman
Professors: C. Auser, I. Berger, A. Beringause, M. Frank, L. Lieberman, B. Mandelbaum, G. Motola
Associate Professors: R. Donovan, N. Grill, N. J. Hall, A. Sakbani, A. Sandberg, N. Sandrow, B. Witlieb
Lecturer: S. Fawcett

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 and Prose Fiction 3 rec 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 and Drama 3 rec 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 and Poetry* 3 rec 1 conf/rec 3 cr
Continued emphasis on the writing of clear, effective expository prose based on readings in poetry. Research paper required. Prerequisite: ENG 13.

ENG 17 Poetry as a Musical Art 3 rec 1 conf/rec 3 cr
Not offered 1977-78.

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. Prerequisite: ENG 13.

ENG 20 Journalism II 2 rec 2 cr
Not offered 1977-78.

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, games, and folk life. Prerequisite: ENG 13.

ENG 41 History of the English Language 3 rec 3 cr
Focus is on description and history of the English language from Old English to 20th 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** 3 rec 3 cr
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* 3 rec 3 cr
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 3 rec 3 cr
Literature by Black American 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 3 rec 1 conf/rec 3 cr
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 3 rec 3 cr
Not offered 1977-78.

ENG 56 Children's Literature** 2 rec 2 cr
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, The 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 rec
To involve the intellectually aware creative student in the study in depth a 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 1 conf/rec 3 cr
Literature of the various genres by Jewish writers. Consideration of the historical and social milieu which produced the 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 1 cr
Study of the prime Biblical narratives as well as chief poetic and wisdom section 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
Not offered 1977-78.

ENG 75 Oriental Thought in Western Literature 3 rec 1 conf/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. Reading in literature of India, China and Japan; attendance at museums, films, concerts and dance performances. Prerequisite: ENG 13.

*Generally offered in the Spring Semester.
**Generally offered in the Fall Semester.
HEALTH AND
PHYSICAL EDUCATION

Chairman: Professor Richard Kor
Professor: M. Steuerer
Associate Professors: J. Katz, R. Salgado, M. Wenzel, J. Whelan, F. Wong
Assistant Professors: G. Constantine, I. DeCicco, J. Juechter, A. Kelemen, S. Schwartz, C. Smith, M. Stern
Lecturers: J. Bloom, E. Duval, D. Genova, H. Skinner

A medical examination is required every two years in 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.

FEA 11 Elementary
Gymnastics and Body Conditioning (Coeducational)
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.

FEA 12 Elementary
Hatha Yoga
Progressive exercises designed to improve flexibility, develop efficient breathing and apply relaxation techniques. The history of yoga, physiological benefits, nutritional aspects and body awareness are interwoven to emphasize the integral nature of body and mind.
**PEA 13** Fundamentals of Women's Gymnastics  
2 rec 1 cr  
Basic gymnastic movements and beginning level skills on the apparatus to develop physical fitness in all its dimensions, including strength, flexibility, balance, endurance and motor coordination. Focuses on aesthetic awareness of the beauty of human motion as a foundation for recreational or competitive pursuits.

**PEA 21** Beginning Swimmer 2 pool 1 cr  
Level (Coeducational)  
Basic water safety skills and knowledge to make an individual reasonably safe while in, on, or about the water. Registration limited to non-swimmers.

**PEA 22** Intermediate Swimmer 2 pool 1 cr  
Level (Coeducational)  
Basic elements of good swimming; includes swimming techniques with emphasis upon mastering form and endurance in the front crawl, back crawl, elementary backstroke and deep water survival skills. Prerequisite: PEA 21 or the ability to swim at least 15 yards but no more than 25 yards, using a crawl and/or backstroke, and inability to swim in water over the head.

**PEA 23** Swimmer (Coeducational) 2 pool 1 cr  
Intended for students beyond the intermediate swimming level. Emphasis on mastering form and endurance in crawl, back crawl, breaststroke, butterfly and sidestroke. Also covers competitive techniques of swimming, fundamentals of springboard diving, survival skills, and basic skin diving. Prerequisite: PEA 22 or ability to swim at least 25 yards, using a crawl stroke and/or backstroke in deep water.

**PEA 24** Advanced Lifesaving and Water Safety (Coeducational) 2 pool 1 cr  
The development of skills and knowledge essential to insure personal safety and to help save the lives of others. American Red Cross Lifesaving Certification. Prerequisite: PEA 23 or the ability to swim 200 yards, employing front crawl, sidestroke, breaststroke and backstroke.

**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, organization of basic synchronized swimming program. Successful completion of this course qualifies a student for a American Red Cross Water Safety Instructor certificate. Prerequisite: Student must be at least 17 years of age and hold current Red Cross Advanced Lifesaving Certificate.

**PEA 26** Synchronized Swimming (Coeducational) 2 pool 1 cr  
Basic techniques of synchronized swimming; includes modified swimming strokes, fundamental sculling movements, basic stunts, figures, and pattern formations, the understanding and appreciation of music and musical accompaniment leading to formation of a music routine. Prerequisite: Ability to swim yards.

**PEA 27** Basic Skin Diving and Scuba Diving (Coeducational) 2 pool 1 cr  
Selection, usage, and care of equipment; basic principles of skin diving and scuba diving. Strong emphasis on safety in aspects of diving. Includes optional open water dive for national certification. Prerequisite: Ability to swim 200 yards continuously without fins, and to stay afloat or tread water for ten minutes without accessories. Students should expect to spend approximately $10 to cover the cost of airfills. All equipment provided by the College.
PEA 31 Fundamentals of Volleyball and Basketball (Coeducational)
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 (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 (Coeducational) 2 gym 1 cr
The development of more intensive techniques in tennis including forehand drive, backhand stroke, volley, lob, overhead smash and chop, and singles and doubles strategy.

PEA 34 Golf I (Coeducational) 2 rec 1 cr
Grip, stances, swing, woods, irons, chipping, pitching, putting, rules, and etiquette. Students should expect to spend approximately $8 to cover the cost of one required round of golf.

PEA 35 Bowling I (Coeducational) 2 rec 1 cr
Basic skills, different types of delivery, bowling errors and corrections. Students should expect to spend approximately $1.50 per session to cover the cost of bowling.

PEA 36 Archery and Badminton (Coeducational) 2 rec 1 cr
Basic skills of archery and badminton. Archery: shooting fundamentals, types of shooting, rules and regulations. Badminton: fundamental skills of serving, overhand clear, forehand and backhand drive, drop shot, and smash shot; singles and doubles strategy.

PEA 41 Techniques of Modern Dance I (Coeducational)
Basic skills of modern dance; development of physical strength, flexibility, endurance, and freedom of movement. Explorations and improvisations leading to basic choreographic skills and appreciation of dance as a means of self-expression and communication.

PEA 42 Techniques of Modern Dance II (Coeducational)
Advanced beginning and intermediate techniques of movement. Elements of compositional form, and the development and execution of compositional studies. Prerequisite: PEA 41 and permission of instructor.

PEA 44 International Folk and American Square Dance (Coeducational)
Explores in-depth skills in international folk and American square dance; develops locomotor skills through dance formations and patterns; designed to foster greater understanding of other countries through their music and cultural heritage as reflected in their dances.

PEA 46 African, Caribbean and Black Dance Forms (Coeducational)
The study of African and Caribbean dance reflecting the customs and heritage of each; explores in depth the transition and relationships of African dance, Caribbean and other Black dance forms.

PEA 81 Techniques of Self-Defense (Coeducational)
Introduction to the skills and techniques of martial arts; judo, karate, jujitsu and aikido for the purpose of understanding their value for self-defense.

HLT 91 Critical Issues in Health 2 rec 2 cr
This course is intended to develop and encourage critical judgment in three vital areas of health: mental health, addiction and dependencies, human sexuality.
Self, Drugs and Alternate Highs*

Drug use and abuse; the influence of environmental factors; exploration of alternate highs; physical activity, relaxation, yoga, martial arts, T'ai Chi or dance. Students must become personally involved in alternative modes of stimulating a sense of well-being. Prerequisite: HLT 91.

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.

Human Nutrition

Introduction to the basic study of foods. Evaluation of the relationship of food to the student's personal goals and life experiences. The student-as-consumer will be involved with self-examination, classroom experiments, and experiential learning techniques designed to focus on the multiple factors influencing eating habits. Essentials in nutrition, weight control, food needs for specific age groups, special diets, food labeling, additives, food economics and processing are among the topics included. Prerequisites: HLT 91 and completion of ENC 02 and/or eligibility for ENC 13.

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.

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: ENC 13.

*Offered during Day Session, Spring Semester.
**Offered during Day Session and Saturdays.
HISTORY

Chairman: Professor S. D. Ehrenpreis
Associate Professors: V. Bonnelli, B. Eisenberg, J. Ryan, W. Sokolsky
Assistant Professors: G. Diallo, S. Miranda
Lecturer: J. Gutwirth

The History Department strongly recommends that students who have a choice of either History 12 or 11 to fulfill their core requirements take History 12.

GEO 10 An Introduction to Human Geography
Introduces key geographical concepts, both cultural and physical. Considers how such geographic factors as location, landforms, climate, soil, and natural resources have shaped cultures and civilizations, and the role played by people in gradually altering their environments through time. Such audiovisual materials as maps, photographs, slides, and films will be used extensively. No prerequisite.

HIS 11 History of Western Civilization I
Western civilization from ancient times to the 18th 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 14 Europe in the Middle Ages
Not offered 1977-78.

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 time through the Civil War, with special attention to institutions and politics. Recent historical interpretations of examination of historical origins of current problems. Prerequisite: HIS 11 or 12.
HIS 22 American History II** 3 rec 3 cr
(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 3 rec 3 cr
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 3 rec 3 cr
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. Prerequisite: HIS 11 or 12.

HIS 25 The Third World and the West: History of Modern Imperialism and Colonialism 3 rec 3 cr
Survey of the world scene since 1870, especially in the building of colonial empires in Africa, Asia and Latin America; the rivalries among the imperialist powers; the relationship of imperialism to World Wars I and II; the decline of colonialism; the rise of Soviet and Communist Chinese imperialism. Prerequisite: HIS 11 or 12.

HIS 27 Modern History of the Far East 3 rec 3 cr
China, Japan and Korea in the modern period; political and cultural institutions; structure of oriental societies; advances of the West and the effect of imperialism; industrialism, agrarian reforms; Communism; problems of the post-World War II period. Prerequisite: HIS 11 or 12.

HIS 28 Women: The Historical Perspective 3 rec 3 cr
The changing status of, and attitudes towards, women from antiquity to 20th century America. A wide variety of historical materials will be used to assess how women themselves and the image of women have changed. Analysis in historical perspective of the dimensions of the feminine achievement and the dynamics of undertakings yet ahead. Prerequisite: HIS 11 or 12.

HIS 31 Modern Latin American History 3 rec 3 cr
Historical development of the Latin American area through the 19th and 20th centuries. Prerequisite: HIS 11 or 12.
HIS 34 History of Science and Technology 3 cr
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† 3 cr
Multidiscipline approach to a history of Africa; ancient and medieval African 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 3 cr
Not offered 1977-78.

HIS 37 Afro-American History†† 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 38 Afro-American Intellectual History 3 cr
An advanced course exploring the intellectual contributions of Black Americans from the colonial period to the present. The works of many representative Black Americans will be studied and analyzed in terms of their impact on the historical development of Black America. Prerequisite: HIS 37 or 21 or 22.

HIS 39 History of Puerto Rico and the Caribbean 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 cr
Not offered 1977-78.

HIS 50 American Urban History 3 cr
America began as an urban nation, became rural, and is now again predominantly 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 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. Prerequisite: HIS 11 or 12.

*Generally offered in the Fall Semester.
**Generally offered in the Spring Semester.
†Offered in the Spring Semester.
‡Offered during Evening Session.
§Offered during Day Session, Fall Semester; and Evening Session, Spring Semester.
INDEPENDENT STUDIES

Coordinator: Prof. Evelyn Kish

IND 21 Independent Study 1-3 cr
in a Specific Discipline
For students who wish to pursue a problem of special interest in a specific discipline. Students will devise projects that transcend traditional departmental offerings. Activities to be pursued and outside involvements, if any, are to be arranged in cooperation with the course coordinator. Written reports or the presentation and evaluation of other evidence developed by the student, such as audiovisual materials, will be required. This course is for elective credit only and will not be allowed as a substitute for specific course requirements nor to meet distribution requirements. Maximum number of credits which may be earned is 6. Prerequisites: ENG 13 and either the successful completion of 30 college credits with general cumulative index of 2.0, and 3.0 within the discipline, or permission of the department.

INT 11 Interdisciplinary 1-3 cr
Independent Study
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 credit only and may not be substituted for a specific course requirement nor to meet distribution requirements. Prerequisites: Successful completion of 30 college credits, a cumulative index of 2.0, and permission of the course coordinator.
MATHEMATICS

Chairman: Professor Erwin Just
Professors: H. Jick, A. Paullay, N. Schaumberger, L. Toralballa
Associate Professors: F. Biunouckas, T. Finnegan, J. Furst, N. Gore, B. Kabak, S. Penner
Instructors: G. Bhalla, J. Trent
Lecturers: M. Bates, B. Dyce, S. Forman, S. Greenspan, R. Miller

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 05 Basic Concepts of Mathematics I
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
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.

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
Topics selected from functions and graphs; trigonometry of the right triangle; factoring; linear and quadratic equations; algebraic fractions; exponents, radicals and logarithms; ratio, proportion and variation; progressions; probability and statistics; scientific notation, systems of linear equations. Not recommended toward transfer degrees and not acceptable for credit in Liberal Arts curricula. Prerequisite: 1 year of high school algebra.

MTH 12 Introduction to Mathematical Thought
Topics selected from probability, statistics, logic, set theory, group theory, number theory, geometry, theory of games, matrices, number system structures. Not acceptable for credit in the Liberal Arts curriculum. Prerequisite: 1 year of elementary algebra or its equivalent.

MTH 16 Topics in 11th Year Mathematics II
Topics selected from 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, logarithms. Not recommended for transfer degrees. MTH 16 is not acceptable for credit in Liberal Arts curricula. Prerequisite: Intermediate Algebra, MTH 11 or MTH 06.

MTH 17 College Algebra
Topics selected from 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).

<table>
<thead>
<tr>
<th>Student's professional or vocational objective</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<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>3. Data Processing</td>
<td>MTH 11, 21</td>
<td>MTH 11, 21</td>
<td>MTH 16, 21</td>
<td>MTH 17, 21</td>
</tr>
<tr>
<td>4. Electrical Technology</td>
<td>MTH 05, 06, 16, 17, 18</td>
<td>MTH 06, 16, 17, 18</td>
<td>MTH 16, 17, 18</td>
<td>MTH 17, 18</td>
</tr>
<tr>
<td>5. Mechanical Technology</td>
<td>MTH 05, 06, 16, 17</td>
<td>MTH 06, 16, 17</td>
<td>MTH 16, 17</td>
<td>MTH 17, 18</td>
</tr>
<tr>
<td>6. Medic. Lab. Technology</td>
<td>MTH 05, 06, 16, 17</td>
<td>MTH 06, 16, 17</td>
<td>MTH 16, 17</td>
<td>MTH 17, 18</td>
</tr>
<tr>
<td>7. Business Admin. Transfer (Baruch, Lehman, Hunter)</td>
<td>MTH 05, 06, 30</td>
<td>MTH 06, 30</td>
<td>MTH 06, 30</td>
<td>MTH 30</td>
</tr>
<tr>
<td>8. Business Education Transfer (Hunter)</td>
<td>MTH 05, 06, 21</td>
<td>MTH 06, 21</td>
<td>MTH 06, 21</td>
<td>MTH 21</td>
</tr>
<tr>
<td>9. Chemistry, Biology</td>
<td>MTH 05, 06, 30, 31, 32</td>
<td>MTH 06, 30, 31, 32</td>
<td>MTH 06, 30, 31, 32</td>
<td>MTH 30, 31, 32</td>
</tr>
<tr>
<td>10. Medicine, Dentistry</td>
<td>MTH 05, 06, 30, 31</td>
<td>MTH 06, 30, 31</td>
<td>MTH 06, 30, 31</td>
<td>MTH 30, 31</td>
</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 06, 30, 31, 32, 33, 34</td>
<td>MTH 30, 31, 32, 33, 34</td>
</tr>
<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>
</tr>
<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>
</tr>
<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 05, 06, 21</td>
<td>MTH 06, 21</td>
<td>MTH 06, 21</td>
<td>MTH 21</td>
</tr>
</tbody>
</table>

**Notes:**
- Students with less than two years of high school mathematics preparation should contact the College's Department of Mathematics for course sequence.
- MTH 11, 12 and 16 are not recommended toward transfer degrees, and will not be accepted for credit in the Liberal Arts curricula.
- *Subject to change. See curriculum adviser.
MATHEMATICS COURSE SEQUENCE FLOW CHART

Liberal Arts-Science-Engineering

11
05
12
MTH 23 Probability and Statistics
Recommended for students who receive an A grade in the required previous course and have departmental approval.

18
06
16
17
03
06
17
21
22
21
22
MTH 18 Introduction to Mathematical Analysis
Topics selected from function concepts, conic sections, limit concepts, 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 nonsequential courses primarily for Liberal Arts students enrolled in non-science transfer programs. MTH 21 is especially recommended for prospective elementary school teachers. MTH 22 is recommended as a core requirement for Liberal Arts students in such humanities areas as English, history, and languages, and as an elective for students in all other curricula. MTH 23 is recommended for students in such social sciences as economics, political science, psychology, and sociology.

MTH 21 Survey of Mathematics I
Designed for non-science liberal arts students. Emphasis on key concepts and structure of mathematics. Topics selected from decimal notation, computation in other bases, groups, sets, logic, elementary number theory, development of real number system, analytic geometry, linear programming, networks, complex numbers. Prerequisites: Intermediate Algebra or MTH 06.

MTH 22 Survey of Mathematics II
Topics selected from geometry, networks, topology, algebra, graphs, functions, linear programming, permutations, combinations, probability, logic, euclidean, non-euclidean, projective, finite, and coordinate geometries, groups, matrices. Prerequisites: MTH 06 or Intermediate Algebra.

course descriptions 112
Mathematics in the Modern World
For Liberal Arts students with a minimum mathematical background. BASIC computer language; mathematical simulation of problems from diverse fields including water pollution, population studies, political polls, and artificial intelligence; mathematical algorithms and interpretation of graphs. Prerequisites: MTH 21 or 22 or 23.

MTH 30 through 35 are designed for students majoring in mathematics, physics, biology, chemistry, engineering science, computer science, medicine, and dentistry; and are 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 6 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. Prerequisites: MTH 30 or equivalent.

MTH 32 Analytic Geometry and Calculus II 6 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 22.

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 32.

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
Topics selected from relations, functions, binary operations, induction, Boolean algebra, number systems, propositional calculus, combinatorial analysis, game theory. Prerequisite: MTH 31.

*Offered during Day Session, Fall and Spring Semesters; and Evening Session, Spring Semester only.
**Offered during Day Session, Fall Semester.
 MODERN LANGUAGES

Chairman: Professor John D'Andrea
Professors: D. McCulloch, H. Winterfeldt
Associate Professor: P. Lalli
Assistant Professors: C. Alvarado, F. Delucchi, Gorycki, R. Gourin, H. Harrison, A. Lesar, Pinto, A. Pomerantz, F. Stabile, J. Sweeley, Wilkofsky
Lecturers: A. Resto, I. Taylor

French

FRN 11 Beginning French I 4 rec
A conversation course that will enable student to understand, read, write and speak simple everyday French. Lab. practice.

FRN 12 Beginning French II 4 rec
Continuation of FRN 11. Prerequisite: FRN 11 or placement test.

FRN 13 Intermediate French 4 rec
Continuation of FRN 12. Prerequisite: FRN 12 or placement test.

FRN 15 Beginning French Conversation 4 rec
Not offered 1977-78.

FRN 21 Language and Civilization of France 4 rec
Contemporary French culture and language. Color slides with accompanying tapes in French as well as reading material from modern literary masterpieces as a basis for comprehension and conversation. Prerequisite: FRN 11 or placement test.

FRN 22 Readings in Modern French 4 rec
Not offered 1977-78.

FRN 23 French Renaissance 3 rec
Not offered 1977-78.

FRN 24 French Romanticism 3 rec
Not offered 1977-78.
German

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

GER 12  Beginning German II  4 rec 4 cr
Continuation of GER 11 with emphasis on the conversational phase of German. Prerequisite: GER 11 or placement test.

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

GER 21  Language and Civilization of Germany  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 18th-century German authors. Prerequisite: GER 13 or placement test.

GER 22  18th-Century German Literature  4 rec 4 cr
Not offered 1977-78.

GER 23  19th-Century German Literature  3 rec 3 cr
Not offered 1977-78.

GER 24  20th-Century German Literature  3 rec 3 cr
Not offered 1977-78.

Italian

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

ITL 12  Beginning Italian II  4 rec 4 cr
Continuation of ITL 11. Language structure; conversation; reading of elementary literary texts; dictation. Prerequisite: ITL 11 or placement test.

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

ITL 15  Beginning Italian Conversation  4 rec 4 cr
Not offered 1977-78.

ITL 16  Intermediate Italian Conversation  4 rec 4 cr
Not offered 1977-78.

ITL 21  Language and Civilization of Italy  4 rec 4 cr
Review of language structures; conversation; oral reports; composition and oral analysis of literary texts in Italian. Prerequisite: ITL 13 or placement test.

ITL 22  Readings in Modern Italian  4 rec 4 cr
Not offered 1977-78.

ITL 23  Dante's Divina Commedia  3 rec 3 cr
Not offered 1977-78.

LAN 11  French, German, and Italian Diction  2 rec 2 cr
Not offered 1977-78.
## Modern Language Requirements

<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></td>
<td></td>
<td>Credit</td>
<td>Credit</td>
<td>Credit</td>
</tr>
<tr>
<td>Student elects to continue language studied in high school</td>
<td>3 Years</td>
<td>21 or above</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>12, 13</td>
<td>12, 13</td>
<td>No requirements</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>11, 12, 13</td>
<td>11, 12, 13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Years</td>
<td>21 or above</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>12, 13</td>
<td>12, 13</td>
<td>No requirements</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>11, 12, 13</td>
<td>11, 12, 13</td>
<td>or</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td>15, 16, 17</td>
<td>15, 16, 17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Year</td>
<td>21 or above</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>12, 13</td>
<td>12, 13</td>
<td>No requirements</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>11, 12, 13</td>
<td>11, 12, 13</td>
<td>or</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td>15, 16, 17</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 | 11, 12 | 11, 12 | 11, 12 | or | 15, 16 |
| or | or | or | or | or | or | 15, 16 |

Student studied language 1 year in high school but elects to start new language: or, student studied no language in high school

| 11, 12, 13 | 11, 12, 13 | 11, 12 | 11, 12 | or | 15, 16 |
| or | or | or | or | or | 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. These students may, however, take a modern language for elective credit.

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 three semesters of language.

All students in A.S. Options, Music and Business Transfer curricula who have two 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 two 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 three 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 students in A.S. and A.A. Options complete courses 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 specific requirements of the college to which the student wishes to transfer be determined 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.
### Russian

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUS 11</td>
<td>Beginning Russian I</td>
<td>4 cr</td>
<td>Not offered 1977-78.</td>
</tr>
<tr>
<td>RUS 12</td>
<td>Beginning Russian II</td>
<td>4 cr</td>
<td>Not offered 1977-78.</td>
</tr>
<tr>
<td>RUS 13</td>
<td>Intermediate Russian</td>
<td>4 cr</td>
<td>Not offered 1977-78.</td>
</tr>
<tr>
<td>RUS 21</td>
<td>College Russian I</td>
<td>4 cr</td>
<td>Not offered 1977-78.</td>
</tr>
</tbody>
</table>

### Spanish

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPN 11</td>
<td>Beginning Spanish I</td>
<td>4 cr</td>
<td>Pronunciation; language structure; conversation and reading of simple text; dictation. Audio laboratory practice.</td>
</tr>
<tr>
<td>SPN 12</td>
<td>Beginning Spanish II</td>
<td>4 cr</td>
<td>Continuation of SPN 11. Language structure; conversation; reading of elementary literary texts; dictation. Prerequisite: SPN 11 or placement test.</td>
</tr>
<tr>
<td>SPN 13</td>
<td>Intermediate Spanish</td>
<td>4 cr</td>
<td>Advanced language structures; conversation; reading, translation and discussion of modern texts; composition. Prerequisite: SPN 12 or placement test.</td>
</tr>
<tr>
<td>SPN 15</td>
<td>Beginning Spanish Conversation</td>
<td>4 cr</td>
<td>Intensive conversation course emphasizing practical and realistic situations including the business, community and civil service areas. Use of Audio lab required. (For non-Spanish speaking students.)</td>
</tr>
<tr>
<td>SPN 16</td>
<td>Intermediate Spanish Conversation</td>
<td>4 cr</td>
<td>Continuation of SPN 15. Conversation based on social and work situations. Use of Audio lab required. Prerequisite: SPN 15 or placement test.</td>
</tr>
<tr>
<td>SPN 17</td>
<td>Advanced Spanish Conversation</td>
<td>4 cr</td>
<td>Continuation of SPN 16. Students participate in dialogues and conversation related to contemporary problems and everyday situations to further improve conversational skill. Course conducted in Spanish. Prerequisite: SPN 13 or 15 or placement test.</td>
</tr>
<tr>
<td>SPN 21</td>
<td>Spanish Language and Culture</td>
<td>4 cr</td>
<td>A literary and historical study of Spanish culture; develops basic language skill. Class discussions deal with social, historical and artistic values of Spain, past and present. Course conducted in Spanish. Prerequisite: SPN 13 or 17 or placement test.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Name</td>
<td>Credits</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------------</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SPN 22</td>
<td>Latin-American Language and Culture</td>
<td>4 cr</td>
<td>Readings in Latin-American literature. Representative texts on Latin-American and Caribbean culture, civilization, history and tradition. Conversation; literary analysis and interpretation. Course conducted in Spanish. Prerequisite: SPN 13 or 17 or placement test.</td>
</tr>
<tr>
<td>SPN 23</td>
<td>19th-Century Spanish Literature: Romanticism and Realism</td>
<td>3 cr</td>
<td>Literary analysis of selections from representative Spanish authors. Oral discussion and reports. Outside readings to be assigned. Course conducted in Spanish. Prerequisite: SPN 13 or 17 or placement test.</td>
</tr>
<tr>
<td>SPN 24</td>
<td>Don Quijote and Other Cervantes Masterpieces</td>
<td>3 cr</td>
<td>Reading, discussion, analysis and written reports on selections from the original text. Selections from Cervantes' Novelas Ejemplares. Course conducted in Spanish. Prerequisite: SPN 13 or 17 or placement test.</td>
</tr>
<tr>
<td>SPN 25</td>
<td>Generation of '98</td>
<td>3 cr</td>
<td>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 13 or 17 or placement test.</td>
</tr>
<tr>
<td>SPN 30</td>
<td>Puerto Rican Literature and Culture I **</td>
<td>4 cr</td>
<td>A survey of Puerto Rican history, culture and literature to 1880. Reading, discussion, oral and written reports based on representative Puerto Rican authors. Course conducted in Spanish. Prerequisite: SPN 13 or 17 or placement test.</td>
</tr>
<tr>
<td>SPN 31</td>
<td>Puerto Rican Literature and Culture I†</td>
<td>4 cr</td>
<td>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 13 or 17 or placement test.</td>
</tr>
<tr>
<td>SPN 41</td>
<td>Elementary Spanish for Nurses and Hospital Personnel I</td>
<td>4 cr</td>
<td>Basic Spanish pronunciation, intonation and sentence structure; relevant medical terminology; idiomatic and colloquial expressions. Model dialogues on: taking the medical history; a routine medical examination; problems of diet and nutrition; nursing care; treatment instructions; pediatrics; cardiology; and others. Additional vocabulary according to the student's interests and field of medical specialization. Use of tapes during and outside of class. Intended for non-Spanish-speaking students.</td>
</tr>
<tr>
<td>SPN 42</td>
<td>Elementary Spanish for Nurses and Hospital Personnel II</td>
<td>4 cr</td>
<td>Review and continuation at a higher level of pronunciation, speaking and understanding. Additional vocabulary in new medical situations, such as admissions, X-rays, pregnancy, etc. Small group technique for conversation practice. Use of tapes both during and outside of class. Prerequisite: SPN 41 or placement test.</td>
</tr>
</tbody>
</table>
MUSIC AND ART

Chairman: Professor Marvin Salzberg
Professors: F. Heinz, L. Simon
Assistant Professors: R. Bass, N. Canton, V. Capen,
R. Cordray, J. D'Angelo, G. Dragonetti, S.
Eversole, J. Hamell, P. Schira
Lecturers: 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 10</td>
<td>Art Survey</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Survey of art in selected historical period of Western civilization. Note: Not open to students taking ART 11 or ART 12.</td>
<td></td>
</tr>
<tr>
<td>ART 11</td>
<td>Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Survey of our artistic heritage from the classical period of Western civilization to modern art. Discussion of social and philosophical influences. Creative studio experiences are encouraged. Art museum visits.</td>
<td></td>
</tr>
<tr>
<td>ART 12</td>
<td>Introduction to Western and Non-Western Cultures</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Includes African, pre-Columbian and Oceanian; their relationship to the art of our Western world. Creative studio experiences are encouraged. Museum visits. (May be taken to fulfill ART 11 requirement.)</td>
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<tr>
<td>ART 15</td>
<td>Design</td>
<td>4</td>
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<tr>
<td></td>
<td>Fundamentals of two- and three-dimensional design as applied to different art forms. Art museum visits.</td>
<td></td>
</tr>
</tbody>
</table>
ART 21 Drawing and Painting I
Development of basic skills in drawing and painting. Use of such media as crayon, charcoal, pen-and-ink, tempera, watercolor, acrylics and oil. Art museum visits.

ART 22 Drawing and Painting II
Continuation of ART 21, which is a prerequisite.

ART 31 Graphic Arts I*
Printmaking techniques of linoleum, woodcut and etching. Encouragement of individual experimentation in selected graphic media. Art museum visits.

ART 32 Graphic Arts II**
Continuation of ART 31, including the exploration of silkscreen techniques. Prerequisite: ART 31.

ART 41 Ceramics I*

ART 42 Ceramics II**
Continuation of ART 41, which is a prerequisite.

ART 51 Art of Africa and North America
Exploration of the art forms of West, Central and East Africa, as well as those of the Eskimo and of the North American Indian. Discussion of impact of these cultures on the development of modern art, with attention to the humanistic traditions involved. Art museum visits.

ART 52 Oriental Art*
Emphasis on the art of China and Japan from prehistoric periods through the great Buddhist and dynastic styles in architecture, sculpture, pottery, painting and calligraphy. Studio practice in techniques of Chinese painting. Art museum visits.

ART 55 Modern Art**
European and American painting from Impressionism to the present. Development of architecture and sculpture during the same periods. Art museum visits.

ART 61 Art as a Human Value
Not offered 1977-78.

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

ART 72 Photography II**
Continuation of ART 71. More creative experimentation through studio and field assignments. Photographic exhibitions. Prerequisite: ART 71 or permission of instructor.

Music

MUS 10 Music Survey
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
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. Audio laboratory listening assignments. Attendance at live concerts required.

MUS 12 Introduction to Music with emphasis on Non-Western Cultures
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. Audio laboratory listening assignments. Attendance at live concerts required. (May be taken in fulfillment of MUS 11 requirement.)

*Offered during Day Session, Fall Semester.
**Offered during Day Session, Spring Semester.
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. Audio laboratory listening assignments. Attendance at live concerts required.

MUS 16 Introduction to Folk Music of the Americas 2 rec 2 cr
Not offered 1977-78.

MUS 17 Songwriting 3 rec 2 cr
Classroom instruction in songwriting stressing the development of individual talent and ability through analysis, listening, ear training, keyboard awareness, creative writing and performance. Prerequisite: MUS 40 or Theory Placement Examination within the department.

MUS 18 Introduction to Jazz 2 rec 2 cr
Study of jazz, its history and influence on 20th-century American culture. Outside readings; audio laboratory work and attendance at live concerts required.

MUS 19 Introduction to Jazz Improvisation 2 rec 2 cr
Development of the skills of improvisation and stylization necessary to this form of music. Ear training and sight-reading; listening and analysis of music; evaluation of individual performances. Open to singers and instrumentalists. Prerequisite: Placement examination given by department.

MUS 21, Choral Performance 3 rec 1 cr
The study and presentation of standard and contemporary choral literature in mixed voices. Choral training and performances at concerts, college ceremonies and functions. Registration only with permission of department.

MUS 25 Voice Class 2 rec 2 cr
Classroom vocal instruction stressing individual skills, proper tone production, breath control, diction, musicianship, style, interpretation and performance.

MUS 31, Orchestral Performance 3 rec 1 cr
The study and presentation of standard and contemporary orchestral literature. Orchestral training and performances at concerts, college ceremonies and functions. Registration only with permission of department.

MUS 37 Instrumental Class 1 rec 2 cr
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 2 rec 2 cr
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 3 rec 2 cr
Study of species counterpoint in tonal style. Exercises in canonic writing. Analysis of two-voice writing. Prerequisite: MUS 40 or permission of department.

MUS 42 Theory II 3 rec 2 cr
Introduction to diatonic four-part harmony. Chordal movement and realization of figured basses. Analysis of compositions from traditional literature. Prerequisite: MUS 41.

MUS 43 Theory III* 3 rec 2 cr
Continuation of the study of diatonic harmony. Introduction to seventh chords and the secondary dominant. The practice of simple modulation. Harmonization of melodies and basses; realization of figured basses. Prerequisite: MUS 42.

MUS 44 Theory IV** 3 rec 2 cr
Study of chromatic harmony including use of augmented sixth chords. Modulation through chromaticism. Harmonization of melodies and basses; realization of figured basses. Prerequisite: MUS 43.

MUS 51 Ear Training I 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 52 Ear Training II 2 rec 1 cr
Continuation of Ear Training I and II. Prerequisite: For MUS 53: MUS 52; for MUS 54: MUS 53.

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

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
Development of keyboard skills through study of intervals, diatonic and chromatic progressions, harmonization of melodies, and realization of figured basses. Non-Music majors may register only with permission of department. Prerequisites: Ability to read music; for MUS 61: MUS 72 or permission of department; for MUS 62: MUS 61.

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. Non-Music majors may register only with permission of department. Prerequisites: Ability to read music; for MUS 61: MUS 72 or permission of department; for MUS 62: MUS 61.

MUS 65 Beginning String Class I 2 rec 1 cr
Basic classroom instruction in guitar and electric bass, or bowed string instruments (violin, viola, cello, double bass). Course designed especially for beginners. Students must provide their own instrument or rent one through the College.

MUS 66 String Class II 2 rec 1 cr
Continuation of classroom instruction in guitar and electric bass, or bowed string instruments (violin, viola, cello, double bass). Prerequisite: MUS 65 or permission of instructor.

MUS 67 Beginning Brass Class 2 rec 1 cr
Basic class instruction on trumpet, French horn, trombone or tuba. Students must provide their own instrument or rent one through the College.
MUS 70 Piano Class 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
Class instruction to attain an elementary facility at the piano. Taken by all Music majors except pianists. Registration only with permission of department. Prerequisite for MUS 71: MUS 40 or placement examination; for MUS 72: MUS 71.

MUS 72 Secondary Piano II 1 rec 1 cr

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 84,85,86 Instruction I, II, III, IV
Private instruction in a major instrument, voice, or composition. Registration only with permission of department. Open only to Music majors. Prerequisite for MUS 84: a grade of C or higher in MUS 81; for MUS 85: a grade of C or higher in MUS 84; for MUS 86: a grade of C or higher in MUS 85.

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.

*Offered during Day Session, Fall Semester.
**Offered during Day Session, Spring Semester.
NURSING*

Chairman: Professor Alice Fuller

Professors: J. Gardinier, A. Gatta, A. Jackson, V. Katz, A. Levey, A. Pitman

Associate Professors: D. Darby, C. Lofstedt, R. Tate, M. Walsh


Instructor: R. Morowitz

NUR 11 Nursing Technology I

2 lect 2 lab
4 clin 4 cr

Fundamental nursing needs of patients, and introduction to nursing skills. Clinical laboratory experience provided in general hospitals and nursing homes. Prerequisites: Remedial English, reading, and math courses as required.

NUR 12 Nursing Technology II

2 rec 4 lect
12 clin 10 cr

Nursing care of patients with problems resulting from pathophysiology. Clinical laboratory experience provided in general hospitals and health agencies. Prerequisites: NUR 11, BIO 21; corequisite: BIO 28.

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 and health agencies. Prerequisite: NUR 13; index of at least 1.95.

NUR 21 The Essential Process of Nursing: Interaction

2 lect 3 lab 3 cr

The nurse's interaction with the healthy and the sick. Covers interpersonal development, communication, the helping process, effects of illness on interpersonal behavior and communications, and the inquiry process (including general assessment of client characteristics). Extensive use of small groups and labs; limited use of clinical facilities, most of which occur in the latter part of the course.

NUR 22 The Nurse's Responsibility in Family Health

2 lect 3 lab 3 cr

Demonstrates nursing's role in promoting family health. Focuses on growth and development, and crises in family life. Emphasis is placed on the two major health crises affecting families in the Bronx: prenatal care and care of the aged. Prerequisites: NUR 21, MTH 12, BIO 23; prerequisite or corequisite: BIO 24; corequisite: NUR 23.

NUR 23 Foundational Nursing Skills: Beginning Assessment of and Intervention in Critical Situations

1 lect 6 lab
3 clin 4 cr

Provides background knowledge of the most common acute life-threatening health problems, and then focuses on general assessment skills in terms of client's functional abilities, assessment skills in critical and/or emergency nursing situations, and intervention skills in specified emergency situations. Designed to develop competency in assessment and comfort in meeting emergency needs to enable the nurse to ascertain better the more comprehensive needs of clients (which are the focus of the later nursing courses). Prerequisites: NUR 21, MTH 12, BIO 23; prerequisite or corequisite: BIO 24; corequisite: NUR 22.
NUR 24 Major Health Problenrs I**

Major health problems in our society are organized in relation to the necessary activities and regulatory needs of people. Covers relatedness, reproduction, long-term problems in the areas of mobility and neurological abilities. Prerequisites: NUR 22, NUR 23, PSY 11, BIO 24; prerequisite or corequisite: BIO 28; corequisite: NUR 26.

NUR 25 Major Health Problems I/ (In Relation to the Regulatory Activities and Needs of People)**

Organized around the regulatory needs of clients with major health problems, this course focuses on understanding the nurse's needs in order to function effectively in nursing practice. Categories of activities included are: intrinsic and extrinsic chemical balance, circulation, oxygenation, nutrition and cell growth, intact skin, and elimination. Prerequisites: NUR 24 and NUR 26; corequisite: NUR 27.

NUR 26 Clinical Nursing Activities I**

Focuses on clinical nursing activities needed to meet major health problems. Clinical nursing is seen as directed primarily toward assessment and restorative functions; planning and practice is explored in relation to patients with major health problems in the areas of relatedness, reproduction, and general restorative abilities. Prerequisites: NUR 22, NUR 23, PSY 11, BIO 24; prerequisite or corequisite: BIO 28; corequisite: NUR 24.

NUR 27 Clinical Nursing Activities II**

A continuation of Clinical Nursing Activities I. Focuses on pediatric and adult patients with medical-surgical problems. Prerequisites: NUR 24 and NUR 26; corequisite: NUR 25.

NUR 28 Management in Nursing**

Health agency-based learning experience designed to help students understand nursing team membership roles, functions, evaluation, peer review, leadership, and delegation; nursing management of small groups of clients; standards, policies and legislation; teaching-learning responsibilities; participation with health teams. (Must be taken in the final semester. All nursing curricular requirements must be completed or be in the process of completion by the end of the semester in which this course is taken.) Index must be 1.95 to enter NUR 28.

Courses in Nursing are open only to students with full matriculation status in the Nursing Curriculum.

**The minimum acceptable grade in each semester in the Nursing major is C. Grades of D 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 the course may be applied once toward graduation.
4. The student may repeat the course only once.
5. The student is required to pay for all coursework in excess of his degree requirements. Courses repeated under this regulation are considered excess of degree requirements.
Astronomy

AST 11 Astronomy and Space Science 1 lec 2 rec 3 cr
Elementary study of the solar system, stellar populations, structure of the universe, and other aspects of modern astronomy. Prerequisites: Elementary Algebra or MTH 06, and the equivalent of RDL 02, or permission of the department.

AST 12 Astronomy and Space Science 1 lec 2 rec 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.

AST 21 Intermediate Astronomy 2 lec 1 rec 3 cr
A continuation of Astronomy 11 or 12; more detailed study of astronomical coordinate systems, stellar population, black holes, Hertzsprung-Russell diagrams, eclipses, and other topics of interest to the amateur astronomer. Prerequisites: AST 11 or 12, and MTH 06 or equivalent.

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.) Corequisites: MTH 06, RDL 02 or equivalent.

PHY 11 College Physics I 2 lec 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 electromagnetic theory. Prerequisite: Intermediate Algebra or MTH 06 or MTH 11.

PHY 12 College Physics II* 2 lec 1 rec 2 lab 4 cr
Special and general relativity, quantum theory, selected topics in modern atomic and nuclear physics. Prerequisite: PHY 11.

PHY 15 Ideas of Contemporary Physics 3 rec 2 lab 4 cr
Not offered 1977-78.

PHY 16 Physics for the Life Sciences 2 lec 1 rec 2 lab 4 cr
Introduction to the concepts, procedures and techniques of physics as applied to the health science professions. Topics include motion of bodies, energy, machines, temperature, electricity, sound, light, and the structure of matter; operating principles of various medical and nursing devices. Intended for those students who do not plan to take more than 4 credits in physics. Prerequisite: MTH 05.

PHY 21 Physics for Engineering Technology I 2 lec 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 1 lec 1 rec 2 lab 3 cr
Fluid dynamics, thermodynamics, electricity and magnetism, optics, applied nuclear technology. Prerequisite: PHY 21.
PHY 24  Technical Physics  3 rec 3 lab 4 cr
Not offered 1977-78.

PHY 31  Physics I**  2 lect 2 rec 2 lab 4 cr
Statics and dynamics of particles and rigid bodies; force and motion; energy and momentum; rotational motion; elasticity and simple harmonic motion. First semester of a three-semester sequence for students in Computer 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  2 lect 2 rec 2 lab 4 cr
Hydrostatics and hydrodynamics; properties of gases; thermodynamics and kinetic theory of matter; wave motion; sound; electrostatics. Prerequisite: PHY 31; corequisite: MTH 32.

PHY 33  Physics III†  3 lect 2 rec 3 lab/alt wks 4 cr
Electromagnetic theory; direct and alternating currents; electromagnetic waves; geometrical and physical optics; modern physics. Prerequisite: PHY 32; corequisite: MTH 33.

PHY 34  Engineering 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  2 rec 2 lab 3 cr
The physical nature of light, optics, and photochemistry will be discussed with the aim of acquainting students with principles of photography and optics. Access to a camera with a variable shutter, dia- phragm and interchangeable optical systems is provided. Prerequisite: MTH 05.

PHY 41  Electricity and Magnetism  2 lect 2 rec
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.) Prerequisite: PHY 33, MTH 33; corequisite: MTH 34.

PHY 51  Atomic and Nuclear Physics  2 rec 2 lab
Deflection of charged particles by electric and magnetic fields; special relativity; Bohr model of the atom; quantum numbers; radioactive decay; schematics of 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
Techniques of analysis and programs required to utilize a stored program digital computer for solution of scientific problems in engineering science, physics, and mathematics. Required of students in Engineering or Computer Science. Prerequisites: MTH 18 or MTH 30, and one semester of college physics.

RAD 71  Radiation Physics and Dosimetry I  2 rec 2 lab
Elements of atomic and nuclear physics, the Geiger counter, resolving time, radioactivity; elements of health physics, the roentgen. Prerequisite: PHY 2. Permission of the department.

RAD 72  Radiation Physics and Dosimetry II  2 rec 2 lab
Elements of nuclear physics; the conservation laws; the neutrino; alpha, beta, and gamma decay; the REM, REP, and R number of radiation survey meters. Prerequisite: RAD 71.

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*Offered during Day Session, Fall Semester; Evening Session, Spring Semester.
**Students who have passed PHY 01 or taken school physics may register for PHY 31, with a prerequisite of MTH 30, with permission of the Physics Department chairman.
1Offered during Day Session, Spring Semester, Evening Session, Fall Semester.
### Secretarial Studies

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Corequisites</th>
</tr>
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<tbody>
<tr>
<td>COM 31</td>
<td>Business Communication*</td>
<td>3 cr</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>SEC 45</td>
<td>School Records and Accounts††</td>
<td>2 cr</td>
<td>Prerequisites: ENG 13 and TYP 12</td>
<td>Corequisite: TYP 13</td>
</tr>
<tr>
<td>SEC 47</td>
<td>Educational Problems of School Secretaries ††</td>
<td>2 cr</td>
<td>Prerequisites:ENG 13 and TYP 12</td>
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<tr>
<td>SEC 48</td>
<td>Educational Problems of School Secretaries ††</td>
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<tr>
<td>SHO 01</td>
<td>Refresher (Gregg)</td>
<td>3 cr</td>
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<td>Corequisite: TYP 13</td>
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<tr>
<td>SHO 02</td>
<td>Refresher (Pitman)</td>
<td>3 cr</td>
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<td>SHO 11</td>
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<td>5 cr</td>
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<td>Corequisite: TYP 13</td>
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<tr>
<td>SHO 15</td>
<td>Shorthand I (Pitman)</td>
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<td>Corequisite: TYP 13</td>
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<tr>
<td>SHO 12</td>
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<td>4 cr</td>
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<td>Corequisite: TYP 13</td>
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<tr>
<td>SHO 16</td>
<td>Shorthand II (Pitman)</td>
<td>4 cr</td>
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<td>Corequisite: TYP 13</td>
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<tr>
<td>SHO 13</td>
<td>Shorthand III (Gregg)</td>
<td>4 cr</td>
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<td>Corequisite: TYP 13</td>
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<tr>
<td>SHO 17</td>
<td>Shorthand III (Pitman)</td>
<td>4 cr</td>
<td>Prerequisites:ENG 13 and TYP 12</td>
<td>Corequisite: TYP 13</td>
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* 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. Prerequisites: ENG 13 and TYP 12; corequisite: TYP 13.

†† 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.

‡‡ 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.

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### Medical Office Practice and Management

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<thead>
<tr>
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<th>Credits</th>
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<tr>
<td>SEC 45</td>
<td>School Records and Accounts††</td>
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<tr>
<td>SHO 17</td>
<td>Shorthand III (Pitman)</td>
<td>4 cr</td>
<td>Prerequisites:ENG 13 and TYP 12</td>
<td>Corequisite: TYP 13</td>
</tr>
</tbody>
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* Development of effective written communication skills for the medical secretary. Composition of medical case records from X-ray reports, laboratory analyses, and doctors' diagnoses; letters and reports to patients, private health agencies and others; editing and rewriting medical reports and manuscripts. Prerequisites: ENG 13 and TYP 12; corequisite: TYP 13.

†† 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.

‡‡ 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.
SHO 14  Shorthand IV (Gregg)**  4 rec 3 cr
SHO 18  Shorthand IV (Pitman)**  4 rec 3 cr
Development of expert dictation skill at a speed of 120 words per minute. Integration of office-style dictation. High-speed transcription according to office standards. Prerequisites: SHO 13 or 17, TYP 13, and ENG 13.

SHO 31  Legal Shorthand I  4 rec 3 cr
(Gregg or Pitman)
Dictation and transcription of nonlitigation 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, ETBs, appeals. Speed of 120 words per minute. Prerequisites: TYP 13, SHO 31.

SHO 34  Medical Shorthand I  4 rec 3 cr
(Gregg or Pitman)
Not offered 1977-78.

SHO 35  Medical Shorthand II  6 rec 4 cr
(Gregg or Pitman)
Not offered 1977-78.

TYP 01  Refresher Typing  3 rec 0 cr
Designed to develop typing techniques and skills. Extensive drill sessions to build speed and accuracy. Required for those students who have studied typewriting and who do not reach designated level on a typing placement examination.

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 80 words per minute. Prerequisite: TYP 12; corequisite: ENG 13.

TYP 14  Electronic Keyboarding  3 rec 10
Basics of magnetic keyboard technology and operation of electronic keyboarding equipment. Emphasis on preparing high-speed production work both in content and design for input into the system and ultimate retrieval. Prerequisite: TYP 13.

WPR 11  Machine Transcription I  5 rec 30
Development of the ability to transcribe simple dictated material from transcription machines in preparation for employment as a machine transcriber. A minimum level of performance of 8 words per minute on mailable copy is required. Prerequisite: TYP 11; corequisites: TYP 12, ENG 13.

WPR 12  Machine Transcription II  5 rec 30
Development of the ability to transcribe complex dictated material for extended time periods in preparation for employment as a correspondence secretary. A minimum level of performance of 25 words per minute on mailable copy is required. Prerequisites: TYP 12, WPR 11 or SHO 12 or 16; corequisite: TYP 13.

WPR 21  Word Processing Administration  3 rec 30
Development of an understanding of administrative processes involved in the operation of a word processing center. Emphasis on understanding the workflow and multiple tasks required in a word processing center. Prerequisites or corequisites: TYP 13, WPR 11 or SHO 12 or 16.

WPR 22  Word Processing Office Simulation  3 rec 30
Application of the knowledge learned in WPR 21 in a word processing center which simulates an actual business operation. Each student will perform a particular role and experience various positions, thereby learning the total operation of a word processing center and its function in business or professional organizations. Prerequisites: WPR 21, WPR 11 or SHO 12 or 16; corequisites: TYP 14, WPR 12.
ORI 43 Secretarial Senior 1 rec 0 cr
Orientation
For students in Secretarial curricula. Seminar on continuing education; career planning; survey of employment opportunities and techniques of job seeking.

Offered during Day Session, Fall and Spring Semesters; Evening Session, Spring Semester; and Saturday, Fall Semester.
Offered during Day Session, Fall Semester; and Evening Session, Spring Semester; and Evening Session, Fall Semester. Offered during Evening Session.

SOCIAL SCIENCES
Chairman: Professor Arthur Galub
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Assistant Professors: K. Berger, C. Daley, H. Harris, K. Melville, R. Mitchell, P. Morrill, K. Ross, R. Strieby
Lecturer: T. Krainovich

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.

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. Countercyclical measures and international trade relations are examined. No Prerequisite.

ECO 15 History of Economic Thought 3 rec 3 cr
Not offered 1977-78.

ECO 31 Economics of Labor 3 rec 3 cr
Not offered 1977-78.

Philosophy
PHL 11 Introduction to Philosophy 3 rec 3 cr
Fundamental questions of human experience, and basic problems of philosophy; Survey of major philosophers, classical and modern.

PHL 31 Philosophy, Science and Human Values 3 rec 3 cr
Not offered 1977-78.

Political Science
POL 11 American National Government 3 rec 3 cr
Survey of structure and activities of the national government: bases of present political system, pressure groups, political parties, elections, Congress, the President, the Supreme Court, and the protection and deprivation of individual rights.

POL 31 Comparative Government* 3 rec 3 cr
A study of the governments and politics of some important political systems in the modern world, especially those of Great Britain, the Soviet Union and the non-western world. Prerequisite: POL 11.

POL 41 The National Government & Civil Rights since 1954** 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** 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 Indians in 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.
### Psychology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<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. Prerequisite: POL 11 or permission.</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 inter-relationship 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, somatic disturbances and character disorders; their origin, development and treatment. Prerequisite: PSY 11.</td>
</tr>
<tr>
<td>PSY 35</td>
<td>Dynamics of Human Motivation</td>
<td>3 rec 3 cr</td>
<td>Introduction to complex human motivation; emphasis on interaction of conscious and unconscious motives, 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>Workshop in Interpretation of Human Motivation</td>
<td>3 rec 3 cr</td>
<td>Explores the underlying reasons for human behavior as they emerge in actual and/or simulated life situations. Introduction to methods for detecting conflicts, unconscious thought processes and &quot;games people play,&quot; as signaled by verbal and nonverbal communications, everyday situations, e.g., husband-wife interaction, parent-child interchange, dating behavior, approaches to school learning. Prerequisite: PSY 11.</td>
</tr>
</tbody>
</table>

### Political Science

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>POL 51</td>
<td>Urban Politics†</td>
<td>3 rec 3 cr</td>
<td>Politics and government of the American city: municipal political institutions, suburban and metropolitan government, relations with the state and federal governments, racial and ethnic politics, planning, crime and the police, public education. Prerequisite: POL 11 or permission of instructor.</td>
</tr>
<tr>
<td>POL 61</td>
<td>Solving Social Problems Through the Political Process†</td>
<td>3 rec 3 cr</td>
<td>Practical course showing how to work through 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.</td>
</tr>
<tr>
<td>POL 81</td>
<td>Field Work and Seminar in Political Science†</td>
<td>3 rec 6 hrs field work 3 cr</td>
<td>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.</td>
</tr>
</tbody>
</table>
PSY 41 Psychology of Infancy and Childhood
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.

PSY 42 Psychology of Adolescence and Adulthood
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.

PSY 43 Psychological Development During Maturity and Aging*
Normal and abnormal psychological development during adulthood and old age. Emphasis on dynamics of the life cycle; theories of the mature personality; forces affecting continuing growth of the adult personality and intellect; biological, social, and cultural determinants of aging, and influence of normal and abnormal aging processes on perception, psychomotor skills, learning, intelligence, and personality. Prerequisite: PSY 11.

PSY 44 Psychology of Women*
Development, personality characteristics, and needs of women; similarities to and differences from men. Psychological aspects of uniquely feminine experiences. Issues will be examined from a theoretical as well as an empirical perspective. Prerequisite: PSY 11.

PSY 51 Principles of Group Dynamics*
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 and relationship of groups to society. Prerequisite: PSY 11.

PSY 52 Workshop in Group Dynamics:
Leadership Training
Not offered 1977-78.

PSY 61 Laboratory in Group Experience for Applied Settings
Not offered 1977-78.

PSY 62 Workshop in Group Interaction:
Personal Growth Group Settings
Not offered 1977-78.

PSY 71 Clinical Techniques of Assessment:
The Interviews
Interpersonal approach in assessing psychological problems both of individuals and minigroups. Practical experience with clinical interview techniques; psychological evaluation of data and case history write-ups. Methods of referral to appropriate professional and community resources are discussed. Prerequisite: PSY 11.

PSY 72 Clinical Techniques of Assessment:
Psychological Testing
Not offered 1977-78.

PSY 81 Field Work and Seminar in Psychology I
Supervised field work or independent research. Required seminar integrates practical experience with course work. Prerequisites: 9 credits in the social sciences (Economics, Political Science, Psychology, Sociology) and/or permission of the department; 6 of these credits must be in Psychology.

PSY 82 Field Work and Seminar in Psychology II
Not offered 1977-78.
### Sociology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 11</td>
<td>Sociology</td>
<td>3 cr</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>SOC 31</td>
<td>Minorities in American Society</td>
<td>3 cr</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>SOC 32</td>
<td>Urban Sociology</td>
<td>3 cr</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>SOC 33</td>
<td>The Family</td>
<td>3 cr</td>
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<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>SOC 34</td>
<td>Social Deviance</td>
<td>3 cr</td>
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<td>Explores what is regarded as deviant within a society, with emphasis on criminality and mental illness. Deviance is looked at from the perspective of the deviant, e.g., the process by which his initial deviance becomes a career or master status. Deviance is also looked at from the perspective of society, its social structure, norms and sanctions relevant to deviance, and the functions or dysfunctions served by those committing acts of deviance. Prerequisite: SOC 11.</td>
<td></td>
</tr>
<tr>
<td>SOC 35</td>
<td>Introduction to Social Work</td>
<td>3 cr</td>
</tr>
<tr>
<td></td>
<td>Nature of social work and its functions; family casework, child welfare, psychiatric and medical social work, correctional services, public welfare and community welfare organizations. Prerequisite: SOC 11 or PSY 11 or permission of instructor.</td>
<td></td>
</tr>
<tr>
<td>SOC 36</td>
<td>Women in Society§</td>
<td>3 cr</td>
</tr>
<tr>
<td></td>
<td>The nature of women's and men's participation in the family, at school, at work, at play, and in government. Comparative study of various classes and races of contemporary American women with their historical and international counterparts. Analysis of the impact of the sexual revolution and the movement for sexual equality. Prerequisite: SOC 11.</td>
<td></td>
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<tr>
<td>SOC 47</td>
<td>Class and Power</td>
<td>3 cr</td>
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<tr>
<td></td>
<td>in American Society</td>
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</tr>
<tr>
<td></td>
<td>Introduction to the issue and prevalence of social inequality in various societies; documentation of economic, political and status differences and preview of theories of social stratification; examination of key issues such as the consequence of inequality, education and social mobility, and inequality and race; analysis of historical and contemporary change in stratification systems. Prerequisite SOC 11.</td>
<td></td>
</tr>
<tr>
<td>SOC 81</td>
<td>Field Work and Seminar in Sociology#</td>
<td>3 cr</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

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*Offered in the Fall Semester, 1978; and thereafter in the Fall Semester of even-numbered years.

**POL 41 and/or POL 42 will be offered in the Spring Semester, 1978; and thereafter in the Spring Semester of even-numbered years.

†Offered in the Fall Semester, 1977; and thereafter in the Fall Semester of odd-numbered years.

‡POL 61 and/or POL 81 will be offered in the Spring Semester, 1979; and thereafter in the Spring Semester of odd-numbered years.

§Offered in the Spring Semester.

#Offered in the Fall Semester.
SPECIAL EDUCATIONAL SERVICES

Chairman: Professor Joe L. Rempson
Associate Professor: J. Stuchin
Assistant Professors: B. Bennett, D. Davidson, M. Goldman, P. Lanier, S. O'Neill, H. Shenkman, A. Simon
Instructor: E. Caliandro
Lecturers: L. Barker, I. Dutra, H. Rand, H. Richardson, A. Walsh, L. Weinstein, B. Wilson

EDU 10 Child Study
A competency-based course enabling students to acquire teaching abilities. Approaches to classroom learning; classroom management; discipline and control; writing a case history and a life space description of a child; analyzing and interpreting child study data; planning educational activities based on child study data; and knowledge of useful references. Minimum of 15 hours of practicum experience required. Required for all Education majors. Prerequisite or corequisite: PSY 41.

EDU 12 Contemporary Urban Education
A competency-based course enabling students to acquire teaching abilities. Structure of American public education; historical overview of education of minorities; profile of the urban public school student; problems and issues in urban education; urban education programs; factors that affect teaching-learning in an urban setting; and knowledge of references. An elective course. Prerequisite: RDL 02 and ENG 01 or ESL 11 or equivalent.

EDU 15 Reading and Other Language Arts for the Early Childhood and Elementary Years
A competency-based course enabling students to acquire teaching abilities. Various approaches to teaching reading and other language arts, e.g., handwriting, spelling, listening, composition, and literature. Minimum of 20 hours of tutoring and practicum experience required as part of the course work. Provisions made to meet the needs of students who take this course as an alternative to EDU 40. Required upon advisement. Prerequisite: EDU 10; prerequisite or corequisite: ENG 13.

EDU 16 Teaching Reading in the Primary Grades (N-3)
A competency-based course enabling students to acquire knowledge, skills, teaching abilities, and/or insights in relations to: word recognition; comprehension skills; reading readiness skills; various approaches to teaching reading; reading; phonemic and morphemic elements; phonic and structural analysis skills; reading achievement tests; reading interests of children; and knowledge of useful references. Minimum of 20 hours of tutoring and practicum experience required as part of course work. Required, depending on curriculum pattern and advisement. Prerequisite: EDU 10.

EDU 17 Teaching Reading in the Middle Grades (4-6)
A competency-based course enabling students to acquire teaching abilities. Word recognition skills; comprehension skills; various approaches to teaching reading; phonemic and morphemic elements; phonic and structural analysis skills; reading achievement tests; reading interests of children; oral and silent reading; reading in the content areas; and knowledge of useful references. Minimum of 20 hours of tutoring and practicum experience required as part of course work. Required; depending on curriculum pattern and advisement. Prerequisite: EDU 10.
EDU 24 Child Care Seminar I* 3 rec 3 cr
A competency-based course enabling students to acquire teaching abilities. Interaction among parents, staff, and children; historical and philosophical background; planning an educational program; physical environment of the classroom; instructional materials and activities; handling transition time; child and parent adjustment to a new school situation; handling negative child behavior. Required for Child Care students. Prerequisite: EDU 10.

EDU 25 Child Care Seminar II** 3 rec 3 cr
A competency-based course. Continuation of Child Care Seminar I. Enables students to acquire teaching abilities. Play activities; devising activities to meet children's growth needs; involving parents in the school program; planning and conducting parent conferences and meetings; examining own feelings as they affect relationship with children and school personnel; working as part of a group; evaluation of own performance and of class performance; child care services and resources; and knowledge of useful references. Required for Child Care Students. Prerequisite: EDU 24.

EDU 26 Human Relations in Urban Schools 3 rec 3 cr
A competency-based course. Norms, values, and roles; observation of human behavior; principles that govern human change; activities that aid social and emotional growth; effective principles and practices of communication through written messages, teacher-parent conferences, telephone calls, and group presentations; handling conflict and criticism; codes of ethics; and knowledge of useful references. Required of all Education Majors. Prerequisites: RDL 02 and ENG 02 or ESL or equivalent.

EDU 31 Introduction to Learning Problems* 3 rec 3 cr
A competency-based course enabling students to acquire teaching abilities Developmental-prescriptive teaching; learning modalities; organization and management of the learning environment; materials and procedures; evaluation of learning activities; and knowledge of useful references. Minimum of 20 hours of tutoring required. An elective course. Prerequisite: EDU 10.

EDU 32 Nature and Needs of the Handicapped** 3 rec 3 cr
A competency-based course enabling students to acquire teaching abilities. Legal definitions of categories of the handicapped; representative programs and approaches in teaching the handicapped; medical, psychological, and sociological factors associated with being handicapped and their educational implications; services and resources for the educational treatment of the handicapped; current issues; problems, and research regarding the handicapped. An elective course. Prerequisite: EDU 10.

EDU 40 Field Work Seminar 3 rec 3 cr
A competency-based field experience course. Individual and small-group teaching experiences under professional supervision in an accredited school or agency. Periodic meetings with BGSU faculty supervisor. Students must demonstrate competencies as they pertain to general knowledge expected of those who completed the Education sequence: planning, execution, and evaluation of own teaching behavior and skill; meeting individual needs of children; goals of education; curriculum views of John Dewey; national and local curricula; and teaching-learning principles. Required upon advisement. Prerequisite: Completion of all other required courses in the Education Specialization sequence.
EDU 50 Survey of Creative Experiences for the Early Childhood and Elementary Years
A competency-based course enabling students to acquire teaching abilities. Objectives; materials and activities; lesson planning; teaching a song; use of creative experiences in teaching the content subjects; organization of a systematic classroom environment; cultural resources for children's visits; and knowledge of useful references. Required, depending on curriculum pattern. Prerequisite: EDU 10.

ESL 01 English as a Second Language—Basic 5 rec 3 workshop 0 cr
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 2 rec 2 workshop 3 cr
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 5 rec 0 cr
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 3 rec
Language—Basic 2 workshop† 0 cr
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 test.

*Generally offered in the Fall Semester.
**Generally offered in the Spring Semester.
†Students are expected to spend additional hours in the workshop if necessary.
The Board of Higher Education of the City of New York is the governing body of The City University of New York, including Bronx Community College.

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Bronx Community College, administered by the Board of Higher Education, is a unit of The City University of New York. The board of trustees of the City University is the fifteen-member Board of Higher Education of the City of New York, seven appointed by the Mayor, seven by the Governor, and one chosen by the other fourteen. The chairpersons of the University Faculty and Student Senates serve as ex officio members. Board headquarters are at 535 East 80 Street, New York, 10021.

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</table>

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A.A.S., Bronx Community College

Rudolph Arroyo, College Laboratory Technician B, Physics
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Nikolai Lopuchin, College Laboratory Technician C, Engineering Technologies

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Ivyville Trotman, College Laboratory Technician A, Engineering

Tedric White, College Laboratory Technician A, Business and Commerce
A.A.S., Bronx Community College
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, we enjoy the support and counsel of the newly formed Friends of Bronx Community College, which includes representatives of community organizations, industry, labor and sister educational institutions. The committee fosters community cooperation, cultural enrichment and the general development of the College. Its activities have benefited students and the College in many areas such as job placement and through scholarship drives.

The Friends of Public Education of the Bronx, the Bronx Chamber of Commerce, the Bronx Board of Trade, the Bronx Council on the Arts, Rotary, Lions, Kiwanis, the Grand Street Boys' Association and the Soroptimist Club have supported the College's need for expanded facilities and scholarships. The College, in its turn, seeks opportunities to participate in and serve the community wherever it can, culturally and educationally, through civic organizations like the Bronx Borough President's 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 from the College faculty on a variety of subjects. For information on subjects and honoraria, contact the Director of the Bureau at the College.
CULTURAL PROGRAMS

A diversified program of cultural activities is planned by the Committee on Community Projects and Special Events as a supplement to the educational program of the College, as well as a service to residents of the community. The Committee on Community Projects and Special Events merges the efforts of the 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 semiannually 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 James Baldwin, The Murray Louis Dance Company, Ballet Hispanico, The Alvin Ailey Repertory Workshop, Piri Thomas, and Ray Barretto and his Orchestra.

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 performs in the greater metropolitan area.
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.
#12 Fordham Road Crosstown stops at University Ave. where it connects with the #38.
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