STATE UNIVERSITY OF NEW YORK

FULTON-MONTGOMERY
COMMUNITY COLLEGE

• JOHNSTOWN, NEW YORK •

CATALOG 1969-1971
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FULTON—MONTGOMERY COMMUNITY COLLEGE

The College was approved by resolution of the Boards of Supervisors of Fulton and Montgomery Counties on March 21, 1963.

The Board of Trustees of the State University of New York established the Community College by approval of the resolutions on June 13, 1963. It is under the program of the State University of New York. The cost of building and equipment is shared equally by the State and the two counties. The cost of operating the college is shared three ways - by the State, by the two counties, and by the tuition of the students.

Fulton-Montgomery Community College is one of many locally sponsored colleges in New York State. It is established to meet the needs of the rapidly expanding high school population in this area. It is the answer to the needs of low cost, close-to-home, higher education facilities.

In order to begin operation in September, 1964, the College Board of Trustees gratefully accepted the use of the former Johnstown High School building until a permanent site could be obtained and building completed.

Since it is impossible to meet all varieties of local needs in a temporary building, it was decided to offer College Parallel Programs, Business, Electrical and Laboratory Technologies. The College Parallel Program enables area students to transfer for their third and fourth years of college to four-year institutions offering courses in Engineering, Business Administration, Teaching, and general Liberal Arts. Extension, evening and summer session programs of study are offered at the College.

The College enrolled approximately 500 students in September, 1964 for its first year of operation. A new campus on 194 acres accommodates 1200 students. This location is on N.Y. Route 67, approximately midway between Amsterdam and Johnstown. The new site can be reached from either Exit 27 or Exit 28 of the Thruway.
STATE UNIVERSITY OF NEW YORK

The State University of New York established by the State Legislature in 1948, comprises 70 colleges and centers. At present, 68 conduct classes: four University Centers, two Medical Centers, 11 Colleges of Arts and Science, two Specialized Colleges, six two-year Agricultural and Technical Colleges, five Statuory Colleges, and 33 locally-sponsored, two-year Community Colleges.

Three Colleges of Arts and Science are in varying stages of development. Two four-year campuses, in Westchester County at Purchase and in Nassau County at Old Westbury are under construction. Old Westbury admitted a limited number of students in September, 1968, in temporary quarters at Oyster Bay, Long Island. The third campus will be upperdivisional (junior-senior years) in concept and located in the Utica-Rome-Herkimer area. Master’s level programs will be offered at all three campuses.

The University’s Trustees also have approved the establishment of five additional Community Colleges. In varying stages of development, they are sponsored by Clinton, Columbia-Greene, and Schenectady Counties and two by New York City’s Board of Higher Education.

The University further comprises the Ranger School, a division of the College of Forestry, which offers a 43-week technical forestry program at Wanakena; the Center for International Studies and World Affairs at Albany; and four Urban Centers administered by Community Colleges.

University-wide research programs include the Atmospheric Sciences Research Center with campus headquarters at Albany, the Institute for Theoretical Physics and the Marine Sciences Research Center at Stony Brook, and the Water Resources and Polymer Research Centers at the College of Forestry. Two research facilities headquartered at State University of New York at Buffalo are the Western New York Nuclear Research Center and the Center for Immunology.

Graduate study at the doctoral level is offered by State University at 12 of its campuses, and graduate work at the master’s level at 22. The University is continuing to broaden and expand over-all opportunities for advance degree study.

Graduate study areas embrace a wide spectrum including agriculture, business administration, criminal justice, dentistry, education, engineering, forestry, law, liberal arts and science, library science, medicine, nursing, pharmacy, social work, and veterinary medicine.
Four-year programs strongly emphasize the liberal arts and science and also include specializations in teacher education, business, radio and television, forestry, maritime service, ceramics, pre-law, and the fine and performing arts.

Four-year programs include nursing and liberal arts transfer programs and a wide variety of technical curriculums such as agriculture, business, and the industrial and medical technologies.

The University’s Urban Centers provide training for skilled and semi-skilled occupations and college foundation courses for youths in the inner city areas.

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

The State University motto is: “Let Each Become All He Is Capable of Being.”
OBJECTIVES

The basic purpose of every educational institution is the preservation and advancement of civilization. Toward this end, Fulton-Montgomery Community College attempts to develop in its students the ideas, the attitudes, and a spirit of inquiry which characterize the educated individual. The desired outcomes of this educational process may be stated broadly as follows:

For every student with whom it has significant contact, the College should challenge his prejudices, expand his awareness of the world and its people, enhance his social competence, strengthen his sense of purpose in life, increase his appreciation of the arts, improve his earning capacity, and arouse his curiosity so that he will continue to learn, to think, and to stimulate others after he completes his formal education.

The objectives of Fulton-Montgomery Community College are:

1. To provide two years of collegiate education in the arts and sciences leading to an associate degree. Graduates may then transfer to other institutions to pursue further education or return to the community prepared to lead fuller and more effective lives.

2. To provide associate degree programs leading to employment in specific technologies. Such programs shall provide some exposure to the natural sciences, to the social sciences and to the humanities, as well as the skills and knowledge applicable to the particular vocation involved.

3. To provide appropriate career programs leading to a certificate of completion. Normally, such programs shall have a different organization than degree programs.

4. To provide opportunities for intellectual growth in academic areas and for training in specific career skills for the people of the community through extension programs and part-time enrollment in regular programs.

5. To initiate, to support, and to provide cultural and intellectual activities outside the curriculum for all citizens of the community.

6. To provide an educational atmosphere through counseling, activities, and other services which will give to all students a reasonable chance for success in college.

Fulton-Montgomery Community College is obliged to maintain a position as an integral part of the community. This College must provide
educational services appropriate to a continuing and changing society by its contribution to intellectual, cultural, and technological growth. As a part of the State University of New York, the college coordinates its educational programs with those of the state and subscribes to the University's motto, "Let Each Become All He Is Capable of Being."
INTRODUCTION TO STUDENT PERSONNEL

The Student Personnel Division of Fulton-Montgomery Community College is concerned about every aspect of your attendance at the College from admission to graduation.

The services offered through the Division are diverse, and each member of the Division is ready to help you at any time, before, during, or after your attendance at the College. The members of the Division are anxious to see to it that you have every opportunity of entering and succeeding at the College, by offering an integrated instructional program both inside and outside the classroom, by supplementing and reinforcing the classroom instructional program, and by assisting you to gain the maximum benefit from your collegiate experience.

Again, each member of the Division is skilled and interested in helping you make the most of your education.

ADMISSIONS

You may apply for entrance to the College as a full-time student in either September or February, and it is also possible for you to begin your studies at F-MCC during a Summer Session program.

If you wish to secure a degree (matriculate), or attend full-time during a regular semester, you must file a formal application. This application involves the use of State University of New York Admissions Program forms. You should write to the Director of Admissions at the College for these materials. If you wish to discuss your college plans with the Director of Admissions, you may write or call for an appointment. Visits to the campus are encouraged.

You may expect to receive your tentative acceptance to the College within about five weeks of your mailing the application materials if they are submitted after the first week in December. Acceptances are ordinarily mailed within a short time of the receipt of the application forms.

The College expects you to have taken the Regents Scholarship Examination or the State University Admissions Examination within three years preceding your college entry date. You must also participate in a Diagnostic Testing session and Counseling Program before enrolling as a full-time student in the College. The Diagnostic Testing is conducted in late spring for fall applicants, and in December for February entrants. Counseling and pre-registration is held prior to each semester. If you are
an Evening Division student desiring to matriculate, you are expected to follow the same procedure of testing as the full-time student.

Deadlines for applying as a full-time student are on the College Calendar. If you should apply after those dates, you only may enroll as a part-time student; that is, one carrying less than 12 semester hours of study.

The College also accepts applicants through the State University Admissions Assistance Centers*, and the Upward Bound Program.

The College accepts foreign students, though it does not encourage applications from overseas due to limited housing and study facilities. At this time, we have several foreign students registered.

Financial Aid

Before you have been formally accepted to the College, you may wish to contact the Director of Financial Aid. Therefore, you should be aware of the College policies relating to the financial assistance available to you. The College believes that the lack of financial resources should not handicap nor limit your educational opportunities. Implementing this conviction, the College participates in a variety of scholarship, loan and grant programs in addition to the provision for part-time student employment, both on and off campus.

The College requires that you file a Parent's Confidential Statement before your application for any financial aid can be considered. You can obtain forms by writing to the Financial Aid Director at the College or to the College Scholarship Service, Box 176, Princeton, New Jersey, 08540.

To insure that you receive prompt notice of action taken on your application, you must submit a Parent's Confidential Statement to Princeton, New Jersey before the date on the College Calendar. Aid awards will be made on a full academic year basis.

Aid programs for which you may be eligible are:

1. Scholarships

The State of New York awards scholarships to outstanding students on the basis of the Regents Scholarship Exam. The amount and term of the award generally depend on program of study, need, and financial ability.

Information is received by the Financial Aid Office from time to time of scholarships available to eligible students. You may obtain information on these scholarships, sponsored by community agencies, veteran's organizations, various service groups, and fraternal organizations from the Director of Financial Aid.

*Contact the Director of Admissions for further information about this program.
The Nursing Scholarship Program, authorized by the Health Manpower Act of 1968, replaces the Nursing Educational Opportunity Grants Program. Its purpose is to assist students of exceptional financial need accepted for enrollment or enrolled as full-time nursing students. Scholarships are awarded up to $1,500 a year, or the amount of the student's need, whichever is the lesser. Applicants must apply to the Director of Financial Aid.

2. Grants

   New York State Scholar Incentive. You may be eligible for this award if you are enrolled in a college in New York State in a full-time program leading to a degree, if you have been a resident of New York State for the preceding year and meet the prescribed academic requirements. You may qualify under any one of the following criteria:

   a. By successfully completing one semester (12 semester hours or more of college work);
   b. By scoring at least 100 on the Regents Scholarship Exam;
   c. By winning a Regents Scholarship;
   d. By earning a Regents diploma from high school;
   e. By scoring 800 or more on the Scholastic Aptitude Test;
   f. By scoring at least 100 on the State University Admissions Examination.

   The deadline for application for this award is December 1 for the fall semester and April 1 for the spring semester. You must make application each year to:

   Regents Scholarship and Examination Center
   State Education Department
   800 North Pearl Street
   Albany, New York 12200

   The Economic Opportunity Grant Program has been established by the Federal Government. If your financial need is exceptional and, except for this grant, you would not be able to attend college, you may be eligible for this grant. To be eligible, you must show academic or creative promise. Finally, you must be a full-time degree-seeking student. However, preference is given to incoming freshmen. Grants range from a minimum of $200 to a maximum of $1,000. You must apply to the Director of Financial Aid.

   Foreign Students–Tuition and Fees Waiver. The College Board of Trustees has approved a tuition waiver policy for foreign students not to exceed one per cent of the total student enrollment. Application for such
a waiver is made through the Financial Aid Director. The criteria for such a waiver is based on the student’s prognosis of success at Fulton-Montgomery and an evaluation of his parent’s ability to pay the cost of his education.

The Student Government has passed a companion policy statement allowing waivers for college fees for foreign students. Criteria in this situation is identical to those mentioned for the tuition waiver.

3. Loans

National Defense Student Loan. This program was established for full-time and part-time students working for a degree. This loan program is administered by the College and provides up to $1,000 a year to qualified students. The loans are made at 3% interest, and repayment and interest does not start until nine months after you terminate your education. Repayment can be deferred if you serve in the Armed Forces, Vista, or the Peace Corps, or if you continue your education. The loans may be reduced at the rate of 10% a year for each year you teach up to 50% of the loan, if you make teaching a career. Further cancellation is possible under certain conditions. Both application and repayment are made directly to the College.
Nursing Student Loan Program. The loan program is administered by the college and provides up to $1,500 a year in loans to qualified nursing students. Preference is given to eligible licensed practical nurses. Provision is made for deferment of repayment while nurse is on active duty in the uniformed services, while serving as a volunteer under the Peace Corps Acts, or while the borrower pursues a full-time course of study at a collegiate school of nursing leading to a baccalaureate or graduate degree and otherwise pursuing advanced training. The program also provides for a cancellation benefit to allow cancellation of up to 100 per cent of a loan, plus interest, at a rate of 15 per cent for each complete year of service as a professional nurse in a public or non-profit hospital. The interest rate of 3 per cent is applied to loans made under this program. Applicants must apply to the Director of Financial Aid.

The New York Higher Education Assistance Corporation, a federal, guaranteed loan company, operated through the banks of the state, makes loans up to the following maximum amounts: freshmen, $1,000; sophomores, $1,250; juniors, $1,250; seniors, $1,500. Interest is at the rate of 3 per cent a year, and interest and repayment start nine months after you terminate your education. You may apply for this loan through participating banks.

An intermediate loan program (up to $200 and six (6) months) is available through the office of the Director of Financial Aid.

This fund was made possible through a gift of the Arkell Foundation of Canajoharie.

Short term, emergency loans (up to 30 days and $25) may be obtained through the Director of Financial Aid. This fund has been provided by the Amsterdam and Gloversville Lodges of B'nai B'rith.

4. Part-Time Employment

College Work Study Program. You may be eligible for this federally financed program providing part-time jobs, if you are in need of financial help to attend college. The jobs may be on campus or in community agencies. You are limited to a maximum of 15 hours a week when college is in session and 40 hours a week when classes are not in session. Application is made through the Director of Financial Aid.

Finally, a listing of part-time positions available in the community is maintained by the Director of Financial Aid. A number of jobs are available at the College in addition to those provided for by the College Work Study Program. Application for these jobs is also made through the Director of Financial Aid.
5. Veterans Benefits

Courses at Fulton-Montgomery Community College are approved for the education of veterans under P.L. 89-358 (Veterans Benefits Readjustment Act of 1966), P.L. 815 or P.L. 894 (Rehabilitation Acts), and P.L. 634 (War Orphans Act). If you are a disabled veteran or a child of a deceased veteran and plan to use your educational benefits under Public Laws 815 and 634, you must register at the beginning of each semester at the Student Records Office. If you plan to obtain benefits from the Veterans Administration, it is recommended that you make application to your local Veterans Administration Office before registering.

If you have served 181 days or more of continuous active military duty since January 31, 1955, you may wish to take advantage of the Educational Assistance Act for Cold War Veterans. For further information concerning this Act, contact your local Veterans Administration or the Director of Financial Aid.

Whether you encounter financial problems before or after entering college, contact the Director of Financial Aid to discuss your situation at any time.

Counseling and Testing

As soon as you are accepted for admission at Fulton-Montgomery, you are assigned a testing date. At this time, you take a comprehensive series of tests which will help to assess your academic aptitude and achievement levels, as well as your occupational interests.

A few weeks after you are tested, you are assigned a counseling date and meet with a faculty counselor.

At the time you meet with your faculty counselor, prior to admission to Fulton-Montgomery Community College, you will have some important decisions to make concerning the program of study which you intend to follow. It is important, therefore, that you carefully consider the curricular choices open to you. Listed below are brief descriptions of each of the programs which you may wish to consider.

1. Liberal Arts (the Associate in Arts degree)

If you plan to transfer to another college into a program leading to a bachelor's degree, this particular program may be for you. This program is planned for those interested in pursuing advanced study in the Humanities and Social Sciences or the Teacher Education programs at four-year colleges in New York State.
2. Liberal Arts (the Associate in Science degree)

If your interests lie in preparation for the professional fields of medicine or dentistry, teaching science or mathematics on the elementary or secondary levels, or pursuing advanced study in any area of the sciences or mathematics, you should give careful consideration to this program.

3. Engineering Science (the Associate in Science degree)

If your academic background in science and mathematics is strong, and if you are interested in a career in engineering, you may wish to consider this program. This, too, is primarily a transfer program and can prepare you for a bachelor's degree program, and ultimately to a career in chemical, civil, electrical, mechanical, or other engineering fields.

4. Electrical Technology (the Associate in Applied Science degree)

This two-year program may be of interest to you, if you intend to seek employment after two years at Fulton-Montgomery Community College. The type of student attracted to the Electrical Technology curriculum is one who has a personal interest in electricity. Frequently these students have built, repaired, or experimented with electrical apparatus.

This curriculum prepares students for careers as laboratory technicians (electrical or electronic), engineering aides, electrical draftsmen, engineer-
ing assistants, and service technicians. In these capacities, graduates aid
engineers in the performance of their work and generally deal in the area
of applied engineering.

Successful students find employment with reputable industrial firms
at competitive salaries.

5. Accounting (the Associate in Applied Science degree)

The Accounting program provides the basic principles and procedures
which are readily applicable to the problems you may meet in the busi-
ness world as an accountant or cost analyst trainee in such areas as indus-
try, finance, insurance, banking, and government on the junior manage-
ment level.

6. Business Administration (the Associate in Applied Science degree)

The Business Administration program is designed to provide you with
a broad background for future management positions in the field of in-
surance, banking, civil service, finance, sales, and management in many
kinds of business. Both the Accounting and Business Administration pro-
grams may be transferable to four-year business programs, although they
are not designed for that purpose.
7. Secretarial Science (the Associate in Applied Science degree)

This program provides you with the necessary education and training to obtain a position in business, government, and industry as a secretary, stenographer, general office worker, receptionist, typist, clerk, machine transcriber, file manager, and payroll clerk.

8. Nursing (the Associate in Applied Science degree)

As a graduate of the Nursing program, you will be prepared to take the state examination to become licensed as a registered professional nurse (R.N.) and may be employed as a staff nurse to give direct patient care. One of the fundamental purposes of this program is to prepare you to give safe and effective nursing care, based on an understanding of and appreciation for the dignity and worth of each individual. The program includes theory and practice in local hospitals and related health agencies.

9. One-Year Certificate Programs
   a. General Education

       If you wish to strengthen your academic background before beginning a program of study leading to the Associate Degree, or if your educational goals are limited or unsettled, you may find this program of interest to you. You may remain in the program for one semester, you may terminate after one year, or you may enter other programs at the college.

   b. Clerk-Typist

       This one-year program may be of interest to you if you have had at least one-half year of typewriting training in high school, or its equivalent. Although shorthand is not required, it may be taken as an elective. This program prepares you for work in business and industry as a clerk-typist, receptionist, or general office worker. All courses in this program are transferable to the Secretarial Science program (the A.A.S. degree) and many may be used for credit in the Business Administration or Accounting degree programs (the A.A.S. degrees).

   c. Secretarial Studies

       As a recipient of the Secretarial Studies certificate, you will be prepared for positions in business and industry as a secretary, stenographer, or general office worker. The program requires that you have completed two years of shorthand in high school, or its equivalent. All courses in this program may be transferred to the Secretarial Science program (the A.A.S. degree) and many may be applied to degrees in Business Administration or Accounting (the A.A.S. degrees).
At this time, your schedule will also be arranged and you will be registered for your courses. In addition, you will select a section of GE 011 Seminar on College Life, an informal discussion group which meets for an hour each week during the first semester and is required for entering students. This seminar is designed to facilitate your adjustment to college and provide you with an opportunity to discuss ideas and issues which you feel are important. The faculty member who acts as your discussion leader in Seminar on College Life has been selected for this role because of his interest and ability in working with students. He will serve as your academic adviser for the duration of your stay at Fulton-Montgomery.

At some time during your stay at Fulton-Montgomery Community College, you may be troubled by problems of a personal, educational, or vocational nature. In the Counseling Center there are trained and qualified people whose job it is to help you deal with these problems. You may be interviewed on an individual basis by a counselor; or, if you wish, you may be assigned to a group in which you and several other students meet with a counselor on a regular basis. You may also have questions concerning the curriculum in which you are enrolled, since many students change their educational plans while attending college, and you may wish to discuss this with a counselor. If you wish, tests can be administered which may indicate your relative strengths and weaknesses in various academic areas and assist you in reaching your decision. Similarly, you may be in doubt regarding the choice of a vocation. The Counseling Center is prepared to help you with this type of problem as well. Vocational material is available which may be helpful to you in examining various occupations and professions with respect to job demands and satisfactions, earning potential, and potential for advancement.

You may find that you need help in the area of study skills. The Division of Student Personnel offers a program to help you to set up a study schedule and to give you assistance in learning the skills needed to take lecture and reading notes, to prepare research papers, and to review for tests.

In all of your contacts with the Counseling Center, you should keep three things in mind. First, you are always welcome at the Counseling Center, no matter what the problem. Second, you may be certain that the information you discuss with the counselor in the counseling interview will be held in confidence. Finally, you should be aware that the counselor will not make your decisions for you. Although he may be able to assist you in examining your feelings and attitudes and in clarifying alternative courses of action, the final responsibility rests with you.
ORIENTATION

Before beginning your classwork at Fulton-Montgomery Community College, you will attend an orientation period. This session is run by the sophomore students at the school to assist you in becoming familiar with aspects of college life, including your new surroundings, faculty members, and, most important, the other students at the college. During orientation, there will be special activities for you: social hours, a picnic, a meeting with faculty members, and meetings with other freshmen and other sophomores. By attending orientation, you will not only increase your awareness of the kinds of problems and topics that college students are interested in, but you will talk about some of the college rules, the college services that are available to you, study skills, and discover some of the reasons for your being at Fulton-Montgomery Community College.

STUDENT ACTIVITIES

Shortly after you arrive at F-MCC, you will discover that many of your fellow students belong to the various organizations sponsored by the Student Government Association and supported through the College Service Fee. Initially, you may want to stop in at several of the weekly meetings and meet the students and their faculty consultants who are planning the new yearbook, the bigger and better newspaper, the film series, or the service project for the local community.

STUDENT GOVERNMENT

Student Government Association. Your Student Government Association (SGA) represents the student body. It plays an important role in your social and academic life by sponsoring college clubs and activities. Through this association you have the opportunity to voice your opinion and initiate any proposal you desire.

You may participate in SGA as an executive officer, a Senator representing your class, or as a committee member on either an SGA committee which deals with student problems, or a college committee, along with faculty members, which deals with college-wide policies and problems. Your participation on these committees such as Curriculum, Academic Standing, Admissions, Library and Educational Resources, and Student Life, is encouraged by SGA and the faculty. Through participation, you not only gain greater understanding, but also help formulate some of the school's most important policies.
College and Institute Student Government Association. CISGA is your state organization of student governments of public two-year colleges. CISGA members in each region meet regularly to discuss problems of mutual interest and concern. If you wish to represent your college, contact your student Senator.

Orientation Committee. Probably the first students you will meet at Fulton-Montgomery will be your Orientation Counselors. Each year outstanding sophomores are selected to develop and carry out a program for those first few important days of college. Through orientation you will learn not only where the science lab is and how to buy books, but also what college really is and why you are here at Fulton-Montgomery.

The College Union and the Union Board. For the students at Fulton-Montgomery, the College Union is the center of campus living. Within the building you will be able to buy your books, eat your meals, attend club meetings, relax in the television lounge, or chat and study between classes with your friends.

However, your College Union is more than a building. Fulton-Montgomery and the Union Board believe that those activities which you participate in outside of scheduled classes, reinforce and expand the values, ideas and concepts you develop in the classroom.

If you would like to become more involved in college life, the Union Board offers an opportunity to participate not only in setting the policies and procedures under which the building operates, but also in planning the cultural and social programs of the college. For example, you may become interested in selecting the movies for the weekly Fulmont Film Series, or the art for the monthly art exhibits. Perhaps you have been particularly interested in a current national issue; why not become involved with the Union Board and help arrange for a guest speaker on this topic? If you like a certain kind of music, help the Union Program Committee plan your concerts for the year. Winter and Spring Weekends are also arranged through the Union Board. You may feel that the college should offer more social events on weekends or a broader cultural program during the week. Whatever your response is to the social and cultural needs of Fulton-Montgomery, make it known, and see it become a reality through your Union Board.
ORGANIZATIONS

Afro-American Society

The Afro-American Society is dedicated to furthering the cause of the Afro-American in our society and our college community. The organization presents and discusses current issues related to the problems facing the blacks today.

Art Students League

The League has been established to provide students with an outlet for creative talent. No particular drawing or artistic skills are required to join the club, simply an interest in creating something new and different. The League assists the Union Board with the monthly art exhibits and sponsors art trips to New York City and other places.

Chess Club

The Chess Club holds several tournaments during the year as well as running an active program of recreational chess playing during the year.

Circle K

The Circle K Club is sponsored by the local Kiwanis Club and provides an opportunity for students to engage in service to the college and the community.
Drama Guild

The Drama Guild offers you the opportunity to participate in many phases of the theatre from on-stage acting to directing and set design.

Film Club

The Film Club engages in the discussion of current film trends and in the production of experimental films.

Folk Group

The Folk Group assemble on a scheduled basis to sing and to develop interest in the folk art. The group welcomes the occasional listener as well as the devoted participant.

Phi Beta Lambda

If you are a business student you may be interested in Phi Beta Lambda, a national society of business students. Your local chapter, Lambda Mu, is open to any student currently or previously enrolled in collegiate business courses. The purpose of the organization is to give business students a better understanding of the complexity of business and to offer them an opportunity to participate in various activities of mutual interest.

Nurses Association

The Nurses Association is composed of nursing students and other interested students who direct their energies toward nursing related activities.

Veterans Club

If you have served in any branch of the armed forces before coming to Fulton-Montgomery, you will find you have a great deal in common with many of the students here. Through this organization the Veterans encourage ex-servicemen to return to college. As a member, you will find you are kept up to date on the latest VA programs and have the opportunity to share your experiences with students who have not yet been in service.
MUSIC

Band

If you play a band instrument, you are invited to join the College Community Band. Weekly rehearsals are held, and public concerts are presented during the year.

Chorus

If you have had experience in choral groups, you are encouraged to participate in the College Chorus. Regularly scheduled rehearsals provide an opportunity to study a varied selection of choral works. Several public concerts are held during the year.

PUBLICATIONS

The Gateway

THE GATEWAY is your student newspaper. Its aim is to report in a conscientious and objective manner all the news pertaining to campus life at Fulton-Montgomery, and to comment responsibly through its editorials.

Lamplighter

Your college yearbook is published annually by the yearbook staff and provides a pictorial and written review of the year’s events. It is not only something that you will enjoy in the future, but a reflection to the public of what Fulton-Montgomery is now.

Literary Guild

If you are interested in understanding the works of a writer or in developing your own writing skills, the Literary Guild may be for you. LOGO, the college literary magazine, is published by the Guild.

FRATERNITIES AND SORORITIES

Alpha Omega Sorority

Alpha Omega Sorority is a women’s service organization established in September 1965 to serve both the school and the community. The members of the organization perform many services, including collecting for charity drives, publicizing college events, keeping bulletin boards up to
date, selling tickets and ushering. Membership is open to all women students.

Tau Upsilon Sorority

Tau Upsilon Sorority is a women's service organization, established in November 1958, to serve its members, the college, and the community. Members of the organization hope to develop a strong sense of sisterhood and an on-going sorority through various service projects. Membership is open to all women students.

Phi Delta Sigma Fraternity

Phi Delta Sigma is a fraternity established in September 1968. This fraternity is open to all male students. It was established to serve both the school and community and to promote brotherhood among male college students.

Sigma Tau Upsilon Fraternity

Sigma Tau Epsilon is a social fraternity established in October 1958. Its purpose is to establish between members an everlasting relationship and to assure a medium for a worthwhile college environment. The members shall engage in giving service to the college and community and in promoting school spirit.

ATHLETICS

Athletics are an integral part of the Physical Education and Student Personnel programs, and a variety of sports are provided to meet your interests. Although varsity athletics exist for the athletically capable student, attempts are made to carry large squads, keeping everyone who adheres to regulations; and, if you are interested, you are urged to try out for a team.

As a representative of the College, your appearance and conduct reflect on every member of the college community and you must be a positive influence in your college. Some of your obligations are in the areas of eligibility, academic competence, appearance, conduct, and adherence to training rules.

F-MCC is a member of the National Junior College Athletic Association and as such, participates in national events and shares all the privileges of affiliation with a national group. Most of our contests are scheduled with other two-year colleges. In 1967, the State University Junior
College Athletic Conference was formed and we are privileged to participate in the All-Sport League.

Eight varsity sports are scheduled. They include: soccer and cross country in the fall; basketball, skiing, wrestling and bowling in the winter; and softball and golf in the spring.

An additional and vital part of the Athletic Program is the intramural competition. At present, intramural leagues exist in many sports including volleyball, softball, and flag football. These activities provide you with an opportunity to participate on a competitive level with friends on a team and to work at a fairly regular program of physical fitness. Further, the intramurals allow you to develop some additional skill in whatever sport or sports you choose to play. Any group of students can form a team to compete in an intramural league; and you may wish to investigate this possibility with some of your friends after you arrive at the College.
STUDENT SERVICES

Bookstore

In order to serve you better and enable you to purchase textbooks and other college related materials inexpensively and conveniently, the College maintains a bookstore located in the College Union. You are encouraged to indicate to either the Bookstore Manager or the Dean of Students any ways you think the Bookstore can serve you better.

Food Service

The College maintains a cafeteria and a snack bar in the College Union which are open during the mornings, afternoons, and evenings. A full hot meal is available during the noon hour and sandwiches and limited hot meal menus are available at other times. In addition, a number of food vending machines are located in the lower level of the College Union.

Housing

Fulton-Montgomery Community College does not maintain dormitories.

Students planning to secure rooms near the College should contact the Dean of Students Office for a listing of available rooms. Students obtaining rooms must notify the Dean of Students Office of their correct local address.

The College assumes no responsibility either to the student or to the landlord.

Identification Cards

As a new student at the College, you will be issued a photographic identification card, which will be validated each semester and is your means of gaining admission to various college events, as well as checking books out of the Library. You will be issued a temporary identification card at registration, and a permanent one during the first four weeks of the semester from the College Union Office. You should report a lost I.D. card to the College Union Office and obtain a new one at a charge of $1.00.

Insurance

If you attend Fulton-Montgomery full-time, you will be required to carry Accident and Sickness Insurance with the College. You will receive
up to $500 for medical costs resulting from one accident after you have paid the first $10.00. The charge for this service is nominal and is worth the slight, added expense. You should report any and all accidents immediately to the College if you wish to be reimbursed for the expenses you incur.

Selective Service

You must request certification of full-time attendance to be used in securing Selective Service deferment at the beginning of each semester. Notice of full-time attendance will be sent by the College upon individual request only. Once certification has been sent to the Selective Service Board, the College is obligated to inform the Board of any changes in the student's status.

CAREER PLANNING

Some of the most difficult decisions which you may face as a student, may revolve around the questions of what to do upon graduation, what business to join, what four-year college to transfer to, or what other educational or vocational opportunities to seek in addition to or beyond the two-year college. Through the services of the Director of Career Planning, some of these decisions may be clarified. You will find in the office of Career Planning information concerning four-year colleges and occupational possibilities. The Director of Career Planning may be of help to you in clarifying many of the problems you may have. Whether you have questions at this time, or whether questions arise during the course of your study at Fulton-Montgomery, you may always contact the Director of Career Planning to consider your plans with him.

The Director of Career Planning arranges for campus visits by various company representatives. He also coordinates the placement of students in career positions and performs vocational counseling. Last year, the College was host to such companies as Xerox, Kodak, and IBM. You may make an appointment for an interview, or for career placement counseling with the Director of Career Planning at any time. However, it is advisable to make an appointment no later than after the completion of your second semester if you intend to get a job after completing your study at Fulton-Montgomery.

If you are interested in transferring to a four-year college or to other education beyond the two-year level, you should also contact the Director of Career Planning for advice, counseling, and educational materials. You should contact the Director of Career Planning far in advance of your prospective transfer date in order to initiate the transfer procedure.
ALUMNI RELATIONS

For many of you, Fulton-Montgomery will be only a short stop on the way to further education and other college ties. For others, Fulton-Montgomery will be the only experience with collegiate life and thus the alumni relations officer is a vital link between such students and their alma mater. All students who have attended the college are welcome as active members of the Alumni Association. Periodically Alumni are requested to serve on various college committees, and assist in fund-raising and sharing in the educational program for current students at Fulton-Montgomery. All such activities are vital and not thought of as merely good public relations, although that is beneficial, but such activities are an essential part of one institution's search for constant self-evaluation. Self-evaluation has but one thought in mind: how to improve the educational and social experiences of each succeeding group of students.

EXTENSION

The Extension Program provides an opportunity for you who desire to continue your education, but are unable to attend college on a full-time basis. While many students intend to seek associate degrees, you may elect to take credit or special courses to meet job requirements, facilitate professional advancement, or to develop and improve your cultural and intellectual advancement. For those who wish to attend either evenings and/or days on a part-time basis, the Extension Division can provide both scheduling and advisement assistance.

Degree Programs

Students who plan to work for a degree in Extension should plan to matriculate. Matriculation is the procedure by which the College:

1. Evaluates a student's qualifications to pursue a program of study leading to a degree;
2. Accepts or rejects the student's application for admission to the College as a degree candidate;
3. Sets up in conference with the student, if he is accepted as a degree candidate, a specific plan of study, including all required and elective courses; and
4. Accepts the obligation to provide the student with advisement and to grant him a particular degree when he has successfully completed his approved program of study.
The College reserves the right to dismiss, or deny a degree to any student who fails to comply with its regulations and policies.

If you plan to matriculate, you should request application forms from the Director of Admissions. Procedures outlined in the current college catalog must be followed by all students seeking a degree and you will be notified by mail as to the actions of the Admissions Office with regard to your application.

Students who have been dismissed from the College for academic reasons cannot be admitted to the Extension Division for at least one semester. These students, when admitted to the Extension Division, must apply for readmission in order to become reinstated as matriculated students.

Non-Degree Programs

The Extension Division also has non-degree course offerings for those who wish special training and seminars for job training and skills. Publicity concerning these special programs is released periodically throughout the year, and inquiries concerning them will be welcomed.

Summer Sessions

The College also conducts a summer session at its campus. Courses may be used for credit either at the College or transferred to other institutions.

For further information write or call the Director of Extension.
THE LIBRARY

The air-conditioned Library building has a capacity for 45,000 volumes. The books, arranged by Library of Congress classification, are in open stacks to allow easy access to both students and faculty. The library subscribes to about 400 periodicals, indexes, and newspapers in English and other languages. Backruns are maintained in bound volumes and on microfilm, and there is a growing collection of pamphlets and government documents.

Individual study and listening carrels, as well as study tables and lounge areas, provide seating for 400 students. Audio-visual offices are located on the second floor of the building, offering campus-wide services for all instructional media. Other services include microform viewing equipment, a reader-printer, a coin-operated photocopier, and access to a state-wide inter-library loan network.

Special areas include a typing room, sound studio and preview rooms, seminar-conference rooms, faculty study, a graphics preparation center, a smoking room, an extension of the learning laboratory, and a check-out center for non-print materials such as film loops, microforms, records, and tapes. Day and evening hours allow the use of the library as an information center and a resource in continuing education for both students and faculty as well as citizens of the community.
ACADEMIC REGULATIONS

The progress of students at the College is indicated by the grades received in each course. The following grade system is used:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
</tr>
<tr>
<td>B</td>
<td>Very Good</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
</tr>
<tr>
<td>D</td>
<td>Passing</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
</tr>
<tr>
<td>I*</td>
<td>Incomplete</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
</tr>
<tr>
<td>WF**</td>
<td>Withdrawal, Failing</td>
</tr>
</tbody>
</table>

The grade-point average is computed by multiplying the grade points earned in a course by the number of credit hours for the course, adding these products for each course and dividing by the total number of credit hours.

A student's standing in the College is determined by his cumulative grade-point average. Students whose grade-point average is unsatisfactory will be placed on probation. The minimum satisfactory averages at the end of each semester are:

- First Semester: 1.50
- Second Semester: 1.75
- Third Semester: 1.90
- Fourth Semester: 2.00

A student who has been placed on probation for two consecutive semesters will not be eligible to continue at the College. Students who do not attain a grade-point average of 1.00 or higher in any one semester are also ineligible to continue at the College.

A student otherwise eligible for dismissal shall be placed on extended probation if either of the following conditions occur:

1. If in the student's second consecutive semester with an unsatisfactory cumulative index, he attains for that semester an index of 2.00 or greater, or
2. If he has completed 54 semester hours successfully and has a cumulative index of 1.80. In this case, probation will be extended for

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*A grade of I indicates that, at the end of the course, some of the requirements were not completed by the student due to circumstances beyond his control. These requirements must be completed in the following semester or the grade of I automatically becomes F.

**The grade points with a WF will be computed in the grade-point average even if the course is later repeated with a satisfactory grade.
one semester to permit the student to complete degree requirements and to raise his cumulative average.

Attendance at all classes for which a student is registered is expected. Excessive absences may lead to a student being denied the right to take the final examination and consequently to a grade of F in the course.

Cheating constitutes reasonable grounds for dismissal from the course with a grade of WF assigned thereto.

Graduation

To be eligible for graduation, a student must complete 60 hours in courses appropriate to his degree with a cumulative average of 2.00 or higher. He must also complete satisfactorily two semesters of physical education, and GE 011, Seminar on College Life. The degree requirements for specific programs are listed in the following pages.

Graduation with Honors

If a student has completed degree requirements with a cumulative average of 3.50 or higher, a degree shall be awarded with Honors.

Withdrawal from the College

The College is concerned that a student who decides to withdraw has a clear understanding of the reasons for this decision and is helped to formulate future plans that will be most beneficial to him. The institution is also concerned that there be an orderly withdrawal procedure so as to assure the student that when he voluntarily severs his relationship with the institution there be no procedural problems impeding his entering another institution or reentering this institution. This procedure is formulated on these principles and is not designed to impede withdrawal of a student, who should begin the process by conferring with the Director of Career Planning.

Dean's List

In recognition of superior achievement a student who attains in any one semester a grade-point average of 3.20 or better will be placed on the Dean's List.

Credit on Proficiency Exams

Fulton-Montgomery Community College cooperates with the New York College Proficiency Examination Program and will grant credit
towards a degree to students who receive satisfactory grades on the examination. Credit will be granted under the following rules:

1. Each case will be evaluated individually by the academic dean. His decision will be final;

2. Credit will be given for satisfactory performance on a CPE if the examination is based upon the content of a course offered by the college or one which would be acceptable on a transfer basis from another college;

3. Credit will be granted only to a student who has met the entrance requirements of the college and has been admitted officially;

4. Credits shall not exceed 15 semester hours;

5. Examinations must have been taken within five years of application for credit; and

6. A student failing a course at Fulton-Montgomery Community College may not obtain credit for said course by CPE.

Accreditation

The programs offered by Fulton-Montgomery Community College are registered with the New York State Department of Education. The College is authorized by the Board of Regents of the University of the State of New York to confer upon its graduates the degrees of Associate in Arts, Associate in Science, and Associate in Applied Science.

All programs are approved for the training of veterans under the various public laws and the college is approved for holders of New York State scholarships.

FINANCIAL INFORMATION

FEES*

Application Fee (This must be included with initial application.
Non-refundable) .................................................. $ 5.00
Testing and Counseling Fee (Non-refundable) .................. 10.00
Tuition Deposit (Non-refundable) ................................. 10.00
College Service Fee (each semester) ............................ 25.00
Student Insurance Fee (per year) ................................. 6.50
Graduation Fee (last semester only) ............................. 6.00
Late Registration Fee ........................................... 10.00

*Fees and Tuition subject to change by action of Board of Trustees
**TUITION**

<table>
<thead>
<tr>
<th>Category</th>
<th>Resident</th>
<th>Commuting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time (each semester)</td>
<td>200.00</td>
<td>400.00</td>
</tr>
<tr>
<td>Part-time (each semester) — Per credit hour</td>
<td>16.75</td>
<td>33.50</td>
</tr>
<tr>
<td>Non-Residents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time (each semester)</td>
<td>400.00</td>
<td>600.00</td>
</tr>
<tr>
<td>Part-time (each semester) — Per credit hour</td>
<td>33.50</td>
<td>33.50</td>
</tr>
</tbody>
</table>

**CERTIFICATE OF RESIDENCE**

To qualify for the New York State resident tuition fee, a student is required by law to present to the College Business Office a Certificate of Residence before registration, indicating that he has been a resident of New York State for a period of at least one year prior to the date of the Certificate and a resident of a County in New York State for at least six months prior to the date.

Certificate of Residence forms may be obtained from the Admissions Office. New York State residents who are not residents of Fulton or Montgomery counties must have the form SUNY-B-81 completed by the County Treasurer of the County in which they reside.

**REFUNDS**

If the student withdraws from the college on or before the end of late registration, 80% of tuition paid may be refunded. To obtain the refund, a student must submit his resignation in writing and have it accepted by the Dean.

**TYPICAL STUDENT BUDGET FOR FULL ACADEMIC YEAR**

<table>
<thead>
<tr>
<th>Category</th>
<th>Resident</th>
<th>Commuting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$400.00</td>
<td>$400.00</td>
</tr>
<tr>
<td>Fees</td>
<td>50.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Insurance</td>
<td>6.50</td>
<td>6.50</td>
</tr>
<tr>
<td>Room</td>
<td>400.00–600.00</td>
<td>—</td>
</tr>
<tr>
<td>Board</td>
<td>600.00–800.00</td>
<td>—</td>
</tr>
<tr>
<td>Books, Supplies, Uniforms, etc.</td>
<td>100.00–150.00$</td>
<td>100.00–150.00</td>
</tr>
<tr>
<td>Personal Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(clothing, recreation, etc.)</td>
<td>200.00–400.00</td>
<td>100.00–400.00</td>
</tr>
<tr>
<td>Transportation</td>
<td>200.00–400.00</td>
<td>125.00–250.00</td>
</tr>
<tr>
<td><strong>Total student budget for full year</strong></td>
<td>$1885.00–2610.00</td>
<td>$860.00–1360.00</td>
</tr>
</tbody>
</table>

*Fees and Tuition subject to change by action of Board of Trustees
**Residents of New York State must file a "Certificate of Residence."
$Out-of-state tuition charges additional $900.00
$Costs vary for each curriculum such as engineering, nursing, and other technologies.
This does not include room and board costs which we estimate to be $500–700 for students living at home.
LIBERAL ARTS (A.A.)

HUMANITIES AND SOCIAL SCIENCES

This program is designed primarily for those students who plan to transfer to other colleges in programs leading to the bachelor's degree. This program should be followed by students interested in advanced study in the humanities, and social sciences, or in teacher education programs leading to certification by New York State.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 131 English Composition</td>
<td>EN 132 Speech</td>
</tr>
<tr>
<td>SS 183 Western Civilizations</td>
<td>SS 184 Western Civilizations</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>Mathematics or Science</td>
<td>Mathematics or Science</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
</tr>
<tr>
<td>GE 011 Seminar on College Life</td>
<td>Physical Education</td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
</tr>
</tbody>
</table>

17-18

**SECOND YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature Elective</td>
<td>Literature Elective</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>Social Science Elective</td>
</tr>
<tr>
<td>Foreign Language or Elective</td>
<td>Foreign Language or Elective</td>
</tr>
<tr>
<td>Mathematics or Science</td>
<td>Mathematics or Science</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
</tr>
</tbody>
</table>

15-17

All students must complete 2 years of English (EN 131, 132, plus six semester hours selected from EN 231, 232, 233, 234, 235, and 237), 2 years of social science (SS 183, 184, and 6 semester hours in other social science courses), one year of each of the following: foreign language, mathematics, and science, and additional electives to a total of 60 semester hours. In addition, each student must complete for graduation GE 011, Seminar on College Life, and 2 semesters of physical education. At least 50 per cent of the credits offered in the Associate in Arts degree must be selected from the area of the liberal arts and sciences.
LIBERAL ARTS (A.S.)

MATHEMATICS AND SCIENCE

This program is designed for students who plan to transfer and continue their studies in programs leading to the bachelor's degree with particular emphasis on advanced study in the sciences and mathematics. Preparation for the professional fields of medicine and dentistry as well as teaching science and mathematics on the elementary and secondary levels can be initiated with this program.

FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 191 English Composition</td>
<td>EN 192 Speech</td>
</tr>
<tr>
<td>SS 193 Western Civilizations*</td>
<td>SS 194 Western Civilizations*</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Science</td>
<td>Science</td>
</tr>
<tr>
<td>GE 011/ Seminar on College Life</td>
<td>Physical Education</td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17-19</td>
</tr>
</tbody>
</table>

SECOND YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Science</td>
<td>Science</td>
</tr>
<tr>
<td>Foreign Language or Elective</td>
<td>Foreign Language or Elective</td>
</tr>
<tr>
<td>Electives</td>
<td>Electives</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15-17</td>
</tr>
</tbody>
</table>

All students must submit for graduation a total of 60 semester hours including 12 semester hours in the humanities (EN 191 and EN 192, and one year of a foreign language), 6 semester hours of social sciences, (SS 193 and SS 194), 4 courses in mathematics, and 4 courses in science. Electives should be selected to make up a unified program. In addition to the 60 semester hours, students must complete GE 011, Seminar on College Life, and 2 semesters of physical education. A minimum of 80 per cent of the credits submitted for graduation must be drawn from the liberal arts and science.

*SS 193 and SS 194 may be postponed until the second year.
ENGINEERING SCIENCE (A.S.)

Students with good academic backgrounds in science and mathematics who are interested in careers in engineering will secure through this program the basic science and mathematics preparation needed for success in the junior year. Transfer to bachelor's degree programs in chemical, civil, electrical, mechanical, and other engineering fields can be arranged for properly qualified students.

Prerequisites: Satisfactory completion at the high school level of one year of chemistry, one year of physics and 3½ years of mathematics. Students who lack ½ year of mathematics may be admitted with the consent of the department.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 131 English Composition</td>
<td>EN 132 Speech</td>
</tr>
<tr>
<td>MA 157 Analytic Geometry and</td>
<td>MA 158 Analytic Geometry and</td>
</tr>
<tr>
<td>Calculus</td>
<td>Calculus</td>
</tr>
<tr>
<td>CH 175 College Chemistry</td>
<td>CH 176 College Chemistry</td>
</tr>
<tr>
<td>MD 171 Engineering Graphics</td>
<td>MD 172 Engineering Graphics</td>
</tr>
<tr>
<td>PH 181 Engineering Physics</td>
<td>PH 182 Engineering Physics</td>
</tr>
<tr>
<td>GE 011 Seminar on College Life</td>
<td>Physical Education</td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
</tr>
</tbody>
</table>

| Total                          | 19                               |

**SECOND YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Science Elective</td>
<td>Social Science Elective</td>
</tr>
<tr>
<td>MA 257 Analytic Geometry and</td>
<td>MA 258 Topics in Calculus</td>
</tr>
<tr>
<td>Calculus</td>
<td>PH 230 Engineering Mechanics</td>
</tr>
<tr>
<td>PH 235 Engineering Mechanics</td>
<td>PH 232 Engineering Physics</td>
</tr>
<tr>
<td>PH 231 Engineering Physics</td>
<td>Elective</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
</tr>
</tbody>
</table>

| Total                          | 17-18                            |

41
# ELECTRICAL TECHNOLOGY (A.A.S.)

This program is designed for those students who plan to seek employment after two years at Fulton-Montgomery Community College as laboratory technicians, electrical draftsmen, engineering assistants and service technicians. An interest in electricity and electronics and a degree of manual dexterity are assets.

**Prerequisite:** High school algebra, Trigonometry and physics are desirable.

## FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 131 English Composition ..........</td>
<td>EN 132 Speech ....................</td>
</tr>
<tr>
<td>MA 155 Technical Mathematics ......</td>
<td>MA 156 Technical Mathematics ....</td>
</tr>
<tr>
<td>PH 175 Physics ........................</td>
<td>PH 176 Physics ..................</td>
</tr>
<tr>
<td>EL 121 Electricity ..................</td>
<td>EL 122 Electricity ...............</td>
</tr>
<tr>
<td>MD 175 Electrical Graphics ..........</td>
<td>MD 176 Electrical Graphics .....</td>
</tr>
<tr>
<td>GE 011 Seminar on College Life .....</td>
<td>Physical Education ..............</td>
</tr>
<tr>
<td>Physical Education ..................</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>19</td>
</tr>
</tbody>
</table>

## SECOND YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Science Elective .............</td>
<td>Social Science Elective ...........</td>
</tr>
<tr>
<td>MA 255 Technical Mathematics ......</td>
<td>MA 256 Technical Mathematics ....</td>
</tr>
<tr>
<td>EL 223 Electric Machines ............</td>
<td>EL 224 Electric Machines ..........</td>
</tr>
<tr>
<td>EL 221 Electronics .................</td>
<td>EL 222 Electronics ...............</td>
</tr>
<tr>
<td>EL 225 Analogue Computers ..........</td>
<td>EL 226 Digital Computers ..........</td>
</tr>
<tr>
<td>EL 227 Instrumentation ..............</td>
<td>EL 228 Instrumentation ............</td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

|                                    | 17                               |
ACCOUNTING (A.A.S.)

The accounting program provides the basic principles and procedures which are readily applicable to the problems students will meet in the business world as accountants and cost analyst trainees in numerous areas such as industry, finance, insurance, banking, and government on the junior management level.

The following is a suggested sequence of courses:

**FIRST YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>EN 131 English Composition</td>
<td>EN 132 Speech</td>
</tr>
<tr>
<td>SS 133 Western Civilizations</td>
<td>SS 134 Western Civilizations</td>
</tr>
<tr>
<td>BU 121 Principles of Accounting</td>
<td>BU 122 Principles of Accounting</td>
</tr>
<tr>
<td>BU 141 Elements of Business</td>
<td>Mathematics Elective</td>
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<tr>
<td>BU 111 Business Mathematics</td>
<td>Elective</td>
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<tr>
<td>GE 011 Seminar on College Life</td>
<td>Physical Education</td>
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<td>16-17</td>
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**SECOND YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>SS 181 Economics</td>
<td>BU 222 Intermediate Accounting</td>
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<tr>
<td>BU 224 Intermediate Accounting</td>
<td>BU 224 Cost Accounting</td>
</tr>
<tr>
<td>BU 245 Business Law</td>
<td>BU 246 Business Law</td>
</tr>
<tr>
<td>Science Elective</td>
<td>Elective</td>
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<td>Elective</td>
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<td>Physical Education</td>
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<td>16-17</td>
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</table>

A total of 60 semester hours is required for graduation which should include a minimum of 30 semester hours of business subjects including at least 15 semester hours of accounting. Twenty semester hours of the program must be in the liberal arts and science, including EN 181 and EN 182, SS 183 and SS 184, one semester of mathematics, and one semester of science. In addition to the 60 hours, each student must complete GE 011, Seminar on College Life, and two semesters of physical education.
**BUSINESS ADMINISTRATION (A.A.S.)**

The Business Administration program is designed to provide a broad background for future middle management positions in the fields of insurance, banking, civil service, finance, sales, and management trainees in numerous types of business.

The following is a suggested sequence of courses:

### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 131 English Composition</td>
<td>Mathematics Elective</td>
</tr>
<tr>
<td>SS 183 Western Civilization</td>
<td>SS 184 Western Civilization</td>
</tr>
<tr>
<td>BU 111 Business Mathematics</td>
<td>BU 122 Principles of Accounting</td>
</tr>
<tr>
<td>BU 121 Principles of Accounting</td>
<td>BU 144 Office Calculating Machines</td>
</tr>
<tr>
<td>BU 144 Elements of Business</td>
<td>BU 137 Business Communications</td>
</tr>
<tr>
<td>GE 011 Seminar on College Life</td>
<td>Physical Education</td>
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### SECOND YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>SS 181 Economics</td>
<td>EN 132 Speech</td>
</tr>
<tr>
<td>BU 245 Business Law</td>
<td>BU 240 Business Law</td>
</tr>
<tr>
<td>Science Elective</td>
<td>Electives</td>
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<td>Electives</td>
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<tr>
<td>Physical Education</td>
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</table>

### 16-17

Sixty semester hours are required for the completion of the program, which must include a minimum of 30 hours of business subjects and 20 semester hours of liberal arts and sciences, including EN 181 and EN 132, SS 183 and SS 184, one semester of mathematics, and one semester of science. Electives in business may be chosen in data processing, organization and management, marketing, advertising, and finance. Additional electives may be chosen from the liberal arts. In addition to the 60 semester hours, each student must complete GE 011, Seminar on College Life, and two semesters in physical education.
SECRETARIAL SCIENCE (A.A.S.)

The Secretarial Science program provides the necessary education and training for students to obtain positions in business, government, and industry as secretaries, stenographers, receptionists, and machine transcribers.

The following is a suggested sequence of courses:

**FIRST YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>SS 183 Western Civilizations ........ 3</td>
<td>EN 131 English Composition ........ 3</td>
</tr>
<tr>
<td>BU 137 Business Communications ........ 3</td>
<td>SS 184 Western Civilizations ........ 3</td>
</tr>
<tr>
<td>Mathematics Elective ........ 3-4</td>
<td>BU 111 Business Mathematics ........ 3</td>
</tr>
<tr>
<td>BU 131 Shorthand ........ 3</td>
<td>BU 182 Shorthand ........ 3</td>
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<td>or</td>
<td>or</td>
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<tr>
<td>BU 156 Machine Shorthand</td>
<td>BU 156 Machine Shorthand</td>
</tr>
<tr>
<td>BU 133 Typewriting ........ 3</td>
<td>BU 134 Typewriting ........ 3</td>
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<tr>
<td>or</td>
<td>or</td>
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<tr>
<td>BU 134 Typewriting</td>
<td>BU 284 Typewriting</td>
</tr>
<tr>
<td>GE 011 Seminar on College Life ........ 1</td>
<td>Physical Education ........ 1</td>
</tr>
</tbody>
</table>

16-17

**SECOND YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Science Elective ........ 3-4</td>
<td>EN 132 Speech ........ 3</td>
</tr>
<tr>
<td>BU 144 Office Machines ........ 3</td>
<td>Liberal Arts Elective ........ 3</td>
</tr>
<tr>
<td>BU 234 Typewriting ........ 3</td>
<td>BU 125 Office Accounting ........ 3</td>
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<tr>
<td>or</td>
<td>or</td>
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<tr>
<td>Elective</td>
<td>BU 232 Shorthand and Transcription ........ 3</td>
</tr>
<tr>
<td>BU 281 Shorthand and Transcription ........ 3</td>
<td>or</td>
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<tr>
<td>or</td>
<td>BU 256 Machine Shorthand and Transcription</td>
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<tr>
<td>BU 255 Machine Shorthand</td>
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<tr>
<td>Transcription</td>
<td>BU 236 Secretarial Practice ........ 3</td>
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<tr>
<td>BU 235 Secretarial Practice ........ 3</td>
<td>Physical Education ........ 1</td>
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<tr>
<td>BU 238 Secretarial Seminar ........ 1</td>
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</tbody>
</table>

16-17

Sixty semester hours are required for graduation including a minimum of 30 semester hours of business subjects and 20 semester hours of liberal arts and sciences, including EN 131 and EN 132, SS 183 and SS 184, one semester of mathematics, and one semester of science. In addition to the 60 semester hours, each student must complete GE 011, Seminar on College Life, and two semesters of physical education.
NURSING (A.A.S.)

The purpose of the Nursing program is to prepare students to give safe and effective nursing care, based on an understanding of, and appreciation for, the dignity and worth of each individual. Graduates of the program will be prepared to take the examination to become licensed as a registered professional nurse and may be employed as a staff nurse to give direct patient care. The program includes theory and practice in local hospitals and related health agencies.

Prerequisites: High school biology. Algebra and chemistry are desirable.

FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>EN 131 English Composition          3</td>
<td>EN 132 Speech                              3</td>
</tr>
<tr>
<td>SS 291 General Psychology            3</td>
<td>SS 297 Developmental Psychology           3</td>
</tr>
<tr>
<td>BI 181 Anatomy and Physiology        4</td>
<td>BI 182 Anatomy and Physiology             4</td>
</tr>
<tr>
<td>NU 103 Introduction to Nursing       5</td>
<td>NU 105 Nursing Science                    8</td>
</tr>
<tr>
<td>Science</td>
<td>Physical Education</td>
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<tr>
<td>GE 011 Seminar on College Life        1</td>
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<tr>
<td>Physical Education                    1</td>
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SECOND YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>SS 281 Introduction to Sociology       3</td>
<td>NU 204 Nursing Science          10</td>
</tr>
<tr>
<td>BI 282 Microbiology                       4</td>
<td>Electives                     6</td>
</tr>
<tr>
<td>NU 205 Nursing Science                     10</td>
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<td>17</td>
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</tbody>
</table>

Final: 196
CERTIFICATE PROGRAMS

CLERK-TYPIST

This program is open to all students who have completed one-half year of typewriting in high school, or its equivalent. If the program below is followed, it leads to a Certificate in Clerk-Typist at the end of one year. Shorthand is not required, but students may take it as an elective. This program leads to employment in business and industry as a clerk-typist, receptionist, and general office worker. Most courses in this program are transferable to a program leading to the Associate in Applied Science degree in Secretarial Science, and many of them may be used for credit towards the Associate in Applied Science degree in Business Administration or Accounting.

First Semester
EN 011 College Preparatory English or
EN 131 Composition .................. 3
BU 111 Business Mathematics ........ 3
BU 194 Typewriting .................. 3
BU 235 Secretarial Practice .......... 3
GE 011 Seminar on College Life ...... 1
Elective ................................ 3

Second Semester
BU 234 Typewriting .................. 3
BU 236 Secretarial Practice .......... 3
BU 135 Office Accounting ............ 3
BU 137 Business Communications .... 3
BU 144 Office Machines ............... 3
BU 238 Secretarial Seminar .......... 3

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Electives
Data Processing, Shorthand

SECRETARIAL STUDIES

This program is open to all students who have had two years of satisfactory high school training in shorthand, or its equivalent. The program leads to a Certificate in Secretarial Studies at the end of one year. Students completing the program are qualified to accept positions in business and industry as secretaries, stenographers, and other office positions. All courses included in this program may be transferred to a Secretarial Science program leading to an Associate in Applied Science degree.

First Semester
BU 194 Typewriting .................. 3
BU 235 Secretarial Practice .......... 3
BU 111 Business Mathematics ....... 3
BU 137 Business Communications .... 3
BU 231 Shorthand and Transcription 3
GE 011 Seminar on College Life ...... 1

Second Semester
BU 234 Typewriting .................. 3
BU 236 Secretarial Practice .......... 3
BU 135 Office Accounting ............ 3
BU 144 Office Machines ............... 3
BU 232 Shorthand and Transcription 3
BU 238 Secretarial Seminar .......... 3

16
GENERAL EDUCATION

The General Education curriculum is a one-year program leading to a certificate of completion. This program may be useful to the student who wishes to strengthen his academic background before embarking on a program of study leading to the Associate degree. It also offers the student with limited or unsettled educational goals the opportunity for a year of broadly based study and exploration.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>EN 010 College Preparatory English*</td>
<td>EN 010 College Preparatory English*</td>
</tr>
<tr>
<td>GE 030 Improvement of Reading and Study Techniques*</td>
<td>GE 030 Improvement of Reading and Study Techniques*</td>
</tr>
<tr>
<td>MA 050 or MA 150 Mathematics*</td>
<td>GE 030 (GE 091) Improvement of Reading and Study Techniques*</td>
</tr>
<tr>
<td>GE 021 Personal Development</td>
<td>GE 022 Educational and Vocational Exploration</td>
</tr>
<tr>
<td>Physical Education</td>
<td>Exploratory Elective—Technical, Vocational, Liberal Arts**</td>
</tr>
<tr>
<td>Exploratory Elective—Technical, Vocational, Liberal Arts**</td>
<td>Exploratory Elective—Technical, Vocational, Liberal Arts**</td>
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</tbody>
</table>

* Students may take more advanced courses with approval.
** Not required for completion of certificate.

Note: Some students will remain in this program for only one semester, some will terminate after one year, and some will enter other programs at the College.
BU 161 Unit Record Principles 3 s.h.

A survey of punched card systems, illustrating the need for machine processable solutions to accounting and recordkeeping problems, along with the concept, power and flexibility of unit record. Unit record equipment as an independent system is discussed and studied as well as its use and support for computers. Laboratory exercises are executed, involving planning and wiring a range of unit record equipment.

Hours of class per week: 2. Hours of lab per week: 2.
Prerequisite: BU 160.

BU 162 Programming Computers 3 s.h.

A basic course in applying principles of data processing to standard business applications. This course is problem oriented and utilizes Report Program Generator as the major programming language. Emphasis is on report preparation, programming, procedures, file organization and maintenance, and introduction to utility programs. Laboratory exercises are provided on the Univac 9200 computer.

Hours of class per week: 3. Hours of lab per week: 2.
Prerequisite: BU 160.

BU 165 Programming Computers 3 s.h.

An advanced course in applying business problems. The processing language is a machine oriented language called 'Basic Assembler Language'. Topics include the BAL programming language, file organization, and maintenance and programming algorithms.

Hours of class per week: 3. Hours of lab per week: 2.
Prerequisite: BU 162.

BU 167 Data Processing Systems 3 s.h.

A study of data processing systems, including analysis of various existing data processing hardwares and applications in Business and Industry. Includes a study of integrated or total management information systems. Problems of the EDP Department are discussed. Emphasis is given to analysis of management decision needs and control requirements, as well as to the critical understanding of the total environment in which EDP must serve and support. Problems in EDP systems are undertaken by the student.

Hours of class per week: 3. Hours of lab per week: 2.
Prerequisite: BU 141, BU 162 and/or concurrent registration in BU 122.
PHYSICAL EDUCATION AND HEALTH MAJORS - Courses not listed in 1969-71 Catalog

HPE 201 - INTRODUCTION TO HEALTH AND PHYSICAL EDUCATION 3 HRS

Provide a historical background and understanding of the role of health and physical education in education.

Individual objectives and qualifications are reviewed as are the opportunities in the profession.

HPE 251 - LIFETIME SPORTS 3 HRS

Philosophy and instructional techniques in a variety of the lifetime sports.

Activities include: archery, golf, badminton, tennis, paddleball, bowling, volleyball, etc.

PE 241 - GENERAL AQUATICS FOR PHYSICAL EDUCATION MAJORS 1 HR

All future physical educators taking this required course will learn all the latest techniques necessary in the performance of skills associated with the American Red Cross program for beginner, advanced beginner, intermediate, and advanced swimming.

PE 231 - CAMPING 3 HRS

Selected, guided experiences in camping, including nature and conservation, camp craft, nature craft, waterways, and conduct and management of resident and day camps.

HE 235 - COMMUNITY HEALTH 3 HRS

A detailed investigation of communicable disease including definition, transmission, and controls in respect to prevention of disease and promotion of health. Organized public health activities as conducted by local, state, national and international agencies.

An introduction to air and water pollution control, including effects and sources of pollution.

Field trips are arranged.
BUSINESS

BUS MATH

BU 111 Business Mathematics 3 s.h.
Review of the basic fundamentals and use of shortcut operations in computations. Instruction in the practical application of business mathematics in the areas of merchandising, insurance, banking, investment and personal finance.
Hours of class per week: 3.

BU 137 Business Communication 3 s.h.
The emphasis is on writing creative and effective business letters by providing practice in writing letters of inquiry, public relations, sales, applications, credit and collections, and business reports.
Hours of class per week: 3.

ACCOUNTING

ACCT

BU 121 Accounting 3 s.h.
First half of a one-year course introducing accounting theory. Theory of debit and credit: accounts and special journals; the accounting cycle; accounting for notes and interest, accrued items, receivables, inventories, and plant assets; preparation of financial statements. Emphasis is on sole proprietorship.
Hours of class per week: 3.

BU 122 Accounting 3 s.h.
A continuation of BU 121. Accounting for partnerships and corporations; control systems for departments; manufacturing; analysis of statements and data.
Prerequisite: BU 121. Hours of class per week: 3.

BU 125 Office Accounting 3 s.h.
Introductory course for secretarial students designed to familiarize them with the elements of accounting dealing with cash, banking, petty cash transactions, payroll procedures, simple notes and securities, and financial statements.
Hours of class per week: 3.

OFF ACCT

BU 144 Office Calculating Machines 3 s.h.
Development of proficiency is sought in the use of the ten-key and full-key adding-listing machines; the printing, rotary key driven calculators. Emphasis on correct operating techniques and special mathematical problems are stressed. An introduction to the electronic calculator and accounting machine is also included.
Prerequisite: BU 111. Class hours per week: 3.

BU 221 Intermediate Accounting 3 s.h.
Corporate accounting is emphasized. Major classification of items found in financial statements, cash and investments, receivables, inventories, liabilities, plant and equipment are analyzed.
Prerequisite: BU 122. Hours of class per week: 3.

BU 222 Intermediate Accounting 3 s.h.
A continuation of BU 221. Non-current assets and liabilities, including investments, plant and equipment, intangibles, long-term liabilities. The second half investigates stockholders equity, error corrections, and funds flow.
Prerequisite: BU 221. Hours of class per week: 3.

BU 224 Cost Accounting 3 s.h.
Accounting for direct labor, materials, and factory overhead with emphasis on job order costing. Process cost system, standard cost principles and procedures, budgets and direct decision making.
Prerequisite: BU 122. Hours of class per week: 3.
BU 225 Income Tax Accounting 3 s.h.
Federal and State income tax law and regulations are studied. Taxable income, inclusions and exclusions, capital gains and losses, deductions, and other topics are covered. Practice is provided in preparation of income tax returns.
Prerequisite: BU 122. Hours of class per week: 3.

BUSINESS ADMINISTRATION

BU 141 Elements of Business 3 s.h.
An introductory survey of the functions and problems of business management giving the student an overview of the interrelationship among the functional areas of business which he will study in more detail in later courses.
Hours of class per week: 3.

BU 142 Business Organization and Management 3 s.h.
A study of management problems in planning, organizing, actuating, and controlling today's business enterprises. Emphasis is placed on communicating and decision making.
Prerequisite: BU 141. Hours of class per week: 3.

BU 160 Introduction to Data Processing 3 s.h.
An introduction to the fundamentals of automatic data processing. The course is primarily concerned with establishing an understanding of this field beginning with early manual systems to the present day sophisticated electronic data processing systems. Accounting applications to business operations will provide familiarity and experience with data processing equipment.
Prerequisite: High school algebra desirable. Hours of class per week: 2. Hours of lab per week: 0.

BU 241 Marketing 3 s.h.
An analysis of the principles, methods, trends, and problems existing in marketing. A study of the distribution function of middlemen, their movement of goods and marketing policies with some discussion of marketing research.
Prerequisite: BU 141. Hours of class per week: 3.

BU 243 Retail Management 3 s.h.
A study of the principles and problems in the management of retail operations covering organization, store planning, selecting locations, customer services, merchandising policies, stock levels and purchasing procedures.
Prerequisite: BU 141. Hours of class per week: 3.

BU 244 Advertising 3 s.h.
A survey of the advertising field. Policies, procedures, practices in planning and preparing various types of advertisements and selection of media.
Hours of class per week: 3.

BU 245 Business Law 3 s.h.
An introduction to the laws applicable to business with major emphasis on contracts, agency and employment, negotiable instruments, and sale of goods. Text and case studies of legal precedents are used extensively.
Prerequisite: BU 141. Hours of class per week: 3.

BU 248 Financial Management 3 s.h.
A study of the accumulation, use, and control of funds in a business enterprise with emphasis on the problems of financially managing today's corporations.
Prerequisite: BU 122 and BU 141. Hours of class per week: 3.

BU 141
BU 142
BU 241
BU 243
BU 244
BU 245
BU 248
SECRETARIAL SCIENCE

BU 033 Typewriting
Development of basic skills and techniques. Introduction to the use of carbon paper, simple tabulations, business and personal letters, manuscripts and business forms.
Hours of class per week: 5.

BU 131 Shorthand
Basic principles of Gregg Shorthand, Diamond Jubilee Series, including mastery of brief forms. Development of skill in reading and writing shorthand.
Hours of class per week: 5.

BU 132 Shorthand
Further knowledge essential to the mastery of shorthand. Emphasis on skill in reading and writing shorthand at progressively higher rates of speed for sustained periods of time. Spelling, punctuation, grammar, and the development of business vocabulary are included.
Prerequisite: BU 131. Hours of class per week: 5.

BU 134 Typewriting
This course emphasizes the development of speed and accuracy and includes extensive work in the production of business letters, reports, business forms, tabulations and manuscripts, preparation of masters and stencils for duplication, and extensive use of electric typewriters.
Prerequisite: BU 033 or equivalent. Hours of class per week: 4.

BU 155 Stenography
Development of the mastery of the keyboard and theory of machine shorthand.
Hours of class per week: 5.

BU 156 Stenography
Continuation of machine shorthand theory, dictation speed to 80 words per minute and introduction to transcription.
Prerequisite: BU 155. Hours of class per week: 5.

BU 231 Shorthand and Transcription
Development of speed and accuracy in taking dictation of new material. Introduction to typewritten transcription.
Prerequisite: BU 132 or equivalent. Hours of class per week: 5.

BU 232 Shorthand and Transcription
Emphasis on improving transcription skills, spelling, punctuation, and grammar. Development of speed and accuracy in transcribing manila letters on the typewriter.
Prerequisite: BU 231. Hours of class per week: 5.

BU 234 Typewriting
This course continues the development of speed and accuracy, develops proficiency in the use of transcription equipment and includes the use of various types of reproduction equipment including multilith masters.
Prerequisite: BU 134. Hours of class per week: 3.

BU 235-236 Office Practice
A two-semester course in general secretarial procedures. Fundamental secretarial skills are emphasized including procedures for handling mail, receptionist and telephone techniques, filing, preparation of business reports, banking procedures, and secretarial phases of communications and travel.
Prerequisite: BU 133. Hours of class per week: 3.

BU 288 Secretarial Seminar
Development of the charm and personality characteristics which the secretary needs for successful employment in the modern business world. Areas to be covered include posture improvement, good grooming, complexion care, cosmetic techniques, development of an effective speaking voice, the place of a girl in the business world, and analysis of job opportunities.
Hours of class per week: 2.
BU 255 Stenography 3 s.h.
Advanced theory and development of speed to 120 words per minute. Development of transcription skill.
Prerequisite: BU 156. Hours of class per week: 5.

BU 256 Stenography 3 s.h.
Development of machine shorthand speed to 150-200 words per minute. Emphasis on speed and accuracy in transcription.
Prerequisite: BU 255. Hours of class per week: 5.

HUMANITIES

ENGLISH

EN 010 College Preparatory English 3 s.h.*
This course teaches the fundamentals of writing and may be a prerequisite for further study of composition for some students. It is aimed at helping students who need special assistance in the improvement of writing and includes a study of grammar and composition with emphasis on the fundamental principles of writing.
Hours of class per week: 3.

EN 011 College Preparatory English 3 s.h.*
A continuation of the study of fundamental principles of writing with a continuing emphasis on the improvement of the student’s writing skills.
Hours of class per week: 3.

EN 131 Composition 3 s.h.
This course strengthens the individual’s ability to express himself in the use of the English language and to improve upon the fundamentals previously learned. The student investigates essays and in turn investigates the methods of description, exposition, argumentation, and narration. This course gives an overall review of the mechanics of English usage and emphasis is placed on effective writing. Outside readings are required and the student submits critical analyses as an aid in helping him develop style and technique as it is evidenced in the works of representative authors.
Hours of class per week: 5.

EN 132 Speech 3 s.h.
This course introduces the student to the forms of public speaking and affords him the opportunity to practice both the formal and informal deliveries of speech. Individual expression and creativity are still the main tenets of this course. The course aims to enrich the student’s ability to communicate. Emphasis is placed on the spoken word. Various forms of discourse are studied and put into practice. Outside readings are required and the student prepares critical evaluations. The student is also given the opportunity to work with panel and discussion groups.
Hours of class per week: 3.

EN 231 Masterpieces of World Literature 3 s.h.
The course surveys world literature from the Greek classics up to, but not including, 20th Century materials. The epic, the drama, the novel, the essay, and short stories will be studied. Outside readings are required to supplement the materials treated in the course. The readings include selections from Homer, Sophocles, Plato, Virgil, Dante, Chaucer, Shakespeare, Milton, Hawthorne, and Swift.
Prerequisite: EN 131 (EN 132 desirable).
Hours of class per week: 3.

EN 232 Masterpieces of World Literature 3 s.h.
The course surveys world literature, beginning with a study of Melville and representative authors, including Flaubert, Dostoevsky, Tolstoy, Twain, Conrad, Eliot, Faulk-
ner, and Miller. Outside readings are required to supplement the materials treated in this course.

Prerequisite: EN 131 (EN 132 desirable). Hours of class per week: 3.

EN 233 American Literature 3 s.h.
A survey of American Literature from the Puritan period to the middle of the Nineteenth Century.
Prerequisite: EN 131 (EN 132 desirable). Hours of class per week: 3.

EN 234 American Literature 3 s.h.
A survey of American Literature from the middle of the Nineteenth Century to the present.
Prerequisite: EN 131 (EN 132 desirable). Hours of class per week: 3.

EN 235 Modern Drama 3 s.h. (1 semester)
This course is an introduction to modern drama as literature and includes a representative sample of a number of plays. Aspects of modern drama such as naturalism, expressionism, and theater of the absurd are considered as seen in the works of Ibsen, Strindberg, Chekhov, Pirandello, Lorca, de Sade, and Aeschylus. American playwrights include O'Neill, Miller, and Williams. Emphasis is placed on the meaning and appreciation of the plays through class discussion. Students will see a current dramatic production. A critical paper is required.
Prerequisite: EN 131 (EN 132 desirable). Hours of class per week: 3.

EN 236 Introduction to Theater 3 s.h.
The course is intended as a survey to introduce the student to theater as a technique apart from, although closely related to, literature. The student will study acting techniques, stage devices, set design, costuming, make up. Significant dramas will be read to identify application of theatrical principles. The combination of theater art and dramatic readings will provide concepts of drama as art, audience reactions and needs, methods of expression, and interpretation. Textbooks will be used and laboratory experience will be provided.
Prerequisite: Sophomore standing or completion of 6 hours of English. Hours of class per week: 3.

EN 237 Introductory Readings in Modern Literature 3 s.h.
This course is an introductory approach to literature. Emphasis is placed on cultural analysis and advanced critical skills.

EN 238 Philosophy 3 s.h.
The course will introduce the student to the various philosophies and the philosophers who have contributed much to man's thinking. The range of the course will be from the writings of Plato to such as Santayana, Dewey, and William James.

HU 251 Logic and Argument 3 s.h.
This course presents logic as a means for analyzing social, political, and philosophical controversy. The approach is from the linguistic and semantic side, with training in finding the thread of argument within the tangles of commonplace speech and writing. Interest in language is important. This course covers most of the traditional logic of philosophy, such as the syllogism and the use of reasoning in the development of new knowledge, as well as the elements of critical thinking.
Prerequisites: Sophomore standing or completion of 6 hours of English. Hours of class per week: 3.

HU 271 Comparative Religions 3 s.h.
This is a survey course of the living religions of the world. Comparison is made of their similarities and differences. Emphasis is placed upon the influence of religion upon government.

Hours of class per week: 3.
MODERN LANGUAGES

FL 141-142 Elementary French
3 s.h. each semester

A beginner's course, covering the fundamentals of oral comprehension, oral expression, and grammar. Readings in French familiarize the student with the civilization of France.

Hours of class per week: 4.

FL 241-242 Intermediate French
3 s.h. each semester

In this intermediate course the comprehension and use of the spoken language are studied, as well as its grammar and composition, and the cultural aspects of the language. Reading texts are chosen to enable the student to converse in idiomatic French and to awaken his interest in French literature.

Prerequisite: FL 142. Hours of class per week: 4.

FL 341-342 French Reading and Composition
3 s.h. each semester

A review of grammar. Various types of French literature from the works of important authors; oral expression as well as composition is stressed.

Prerequisite: FL 242. Hours of class per week: 4.

FL 143-144 Elementary Spanish
3 s.h. each semester

A beginner's course using the audio-lingual approach. The course gives the student a working knowledge of the essentials of grammar and the ability to read with reasonable facility. Graded readings supplement the text and serve as a basis for conversation.

Hours of class per week: 4.

INT SPAN

FL 243-244 Intermediate Spanish
3 s.h. each semester

The comprehension and use of the spoken language is further developed in this second year language course. Grammar, composition, and the cultural aspects of the language are studied. Readings in Spanish introduce the student to Hispanic life and literature.

Prerequisite: FL 144. Hours of class per week: 4.

FL 343-344 Spanish Reading and Composition
3 s.h. each semester

A review of grammar. A survey of the history, culture and civilization of Spain as the background for the reading of literary selections by Spanish authors; oral expression as well as composition is stressed.

Prerequisite: FL 244. Hours of class per week: 4.

EL GERMAN

FL 147-148 Elementary German
3 s.h. each semester

A beginner's course stressing the conversational approach to the language. Essential grammar is studied and composition is introduced.

Hours of class per week: 4.

FL 247-248 Intermediate German
3 s.h. each semester

A review of grammar combined with the reading of selected works of contemporary German authors. Oral expression as well as composition is stressed.

Prerequisite: FL 148. Hours of class per week: 4.

ART AND MUSIC

AR 011 College Chorus
1 s.h.*

A chorus of men and women studying standard choral literature and participating in public concerts. Open to acceptable singers on either a credit or non-credit basis.

*Not counted in 60 s.h. required for the Associate Degree.

ART AND MUSIC

No out-of-class assignments. Attendance is required for scheduled hours and for concert performances to be presented during the year. One credit hour per semester is not included in graduation requirements. Also open to students on a non-credit basis if they are unable to make three rehearsals per week.
AR 100  Studio Art  3 s.h.
This is a basic course in drawing, painting, and sculpture and will introduce the novice artist to the varied forms of self expression which are available to him and will aid him in controlling the tools at his disposal. There will be studio experience with a variety of art media. Emphasis will be placed on line, color, texture, form, and space. An analysis and critique of the student's studio work will be made.

Hours of class per week: 4.

AR 101  Art History  3 s.h.
Introduction to the history of art. A survey of world painting, sculpture, and architecture from prehistoric to present times. Emphasis will be placed on stylistic developments and appreciation of man's aesthetic achievements. Presentation will combine lecture, text, and visual materials.

Hours of class per week: 3.

College-Community Concert Band
No Credit
Study and performance of standard band literature. The course is open to acceptable players. Weekly meetings to be scheduled.

AR 103  History and Literature of Music  3 s.h.
An appraisal of the art of music through directed listening with illustrations from significant composers. It enables the student to understand music from various periods of history and the relationships to social and cultural life of the period being studied. Periods to be studied include Baroque, Classic, and Romantic.

Hours of class per week: 3.

AR 104  History and Literature of Music  3 s.h.
An appraisal of the art of music through directed listening with illustrations from significant composers. Reference to the Modern and Contemporary periods include the reappraisal of Jazz and serious music. Required readings.

Hours of class per week: 3.

MA 050  Algebra  3 s.h.
A modern approach to introductory algebra. This course is designed to prepare students who have an insufficient mathematics background to pursue college work. Topics include: numbers vs. numerals, absolute value; sets; relations and functions; complements; order properties; field axioms; identities; equations; word problems.

MA 150  Mathematics  3 s.h.
A mathematics course emphasizing the historical development and significance of mathematics in modern society. It is intended for the student who wishes an insight into the nature of mathematics. Topics include: patterns, set theory, elementary logic and the reasoning process, number systems, finite mathematical systems, probability.

Not open to students who have completed 1 1/2 years of high school algebra or MA 151.

Hours of class per week: 3.

MA 151  Essentials of Mathematics  3 s.h.
This course is designed for students who have had only a minimum of school mathematics. Properties of real numbers; polynomials; equations and inequalities; exponents, roots and radicals; functions and graphs; simultaneous systems; exponential and logarithmic functions.

Prerequisite: MA 050 or one year of high school algebra. Hours of class per week: 3.
MA 154 College Algebra with Trigonometry 4 s.h.
A course designed to give a modern approach to college mathematics. Topics include: sets, field axioms; relations and functions; absolute values; inequalities, exponential, logarithmic and circular; radian measures; laws of sines and cosines; complex numbers; theory of equations; determinants; induction.
Prerequisite: MA 151 or 1½ years of high school algebra or Math 11. Hours of class per week: 4.

MA 155 Technical Mathematics 3 s.h.
This is an integrated course designed to provide mathematical foundations for students of technology. Topics include: slide rule; linear and quadratic solutions; graphing; approximations; trigonometry of the right and oblique triangles.
Prerequisite: High school algebra. Hours of class per week: 3.

MA 156 Technical Mathematics 3 s.h.
A continuation of MA 155. Topics include: exponentials, logarithms, and cologarithms; graphs of the transcendental functions; vectors and the J-operator.
Prerequisite: MA 155. Hours of class per week: 3.

MA 157 Analytical Geometry and Calculus 4 s.h.
Topics include: inequalities; relations and functions; limits; continuity; differentiation and integration of algebraic functions; applications with some study of real analysis.
Prerequisite: MA 154 or 3½ years of high school mathematics or 3 years of high school mathematics and permission of the instructor. Hours of class per week: 4.

MA 158 Analytical Geometry and Calculus 4 s.h.
Topics include: the definite integral; applications; analytic geometry; trigonometric, logarithmic; and exponential functions; methods of integration.
Prerequisite: MA 157. Hours of class per week: 4.

MA 159 Mathematics of Finance 3 s.h.
Open to liberal arts and selected business students. Topics include: simple interest; discounts; partial payments; compound interest; equations of value; depreciation; bonds; annuities; life insurance.
Prerequisite: MA 154 or MA 151 and permission of the instructor. Hours of class per week: 3.

MA 257 Finite Mathematics 3 s.h.
A course for students who wish to explore areas of mathematics not covered in the usual algebra-calculus sequence. Topics include: logic; sets and subsets; Boolean Algebra; permutations and combinations; introductory probability theory; vectors and matrices.
Prerequisite: MA 154. Hours of class per week: 3.

MA 255 Technical Mathematics 4 s.h.
A continuation of MA 156. Review of analytic geometry of the straight line and conic sections; differentiation of algebraic functions; logarithmic and trigonometric differentiation; curve sketching; maxima and minima; time rates, implicit functions; anti-differentiation; applications.
Prerequisite: MA 156. Hours of class per week: 4.

MA 256 Technical Mathematics 4 s.h.
A continuation of MA 255. The definite integral; integration techniques; areas volumes; moments of inertia; areas of surfaces of revolution; curve acceleration; applications.
Prerequisite: MA 255. Hours of class per week: 4.

MA 257 Analytic Geometry and Calculus 4 s.h.
Topics include: vectors in E_2 and E_3; applications; elements of solid analytic geometry; polar; infinite series, Taylor's Series with remainder; linear algebra and matrices.
Prerequisite: MA 158. Hours of class per week: 4.
MA 258 Topics in Calculus 4 s.h.
Topics include: determinants; partial differentiation; multiple integration; line and surface integrals; differential equations.
Prerequisite: MA 257. Hours of class per week: 4.

MA 250 Linear Algebra 3 s.h.
This course is designed for second-year mathematics or science majors. Topics include: systems of linear equations, vector spaces, linear dependence, basis, determinants, linear transformations, matrices, determinants, and eigen values.
Prerequisite: MA 158, but concurrent registration in MA 257 desirable. Hours of class per week: 3.

SCIENCE AND ENGINEERING

Biology

BI 171 Modern Biology 4 s.h.
A course in general biological principles relating cell structure to function. Topics discussed will include the origin and evolution of life; biochemistry, energetics; the molecular basis of cell metabolism; principles of heredity and the genetic control of cell activity; cell division; the homeostatic regulation of the cell environment. Physiological processes at the organismic level will be analyzed and correlated with the simpler manifestations at the cell level. Emphasis will be placed on modern research, the nature and philosophy of science, and the art experimentation as carried on concurrently in the laboratory portion of the course.
Hours of class per week: 3. Hours of lab per week: 3.

BI 172 Plant Biology 4 s.h.
An introduction to the structure, functions, and development of seed plants, followed by a survey of the diversity and economic significance of the plant kingdom. The organs of plants will be studied in relation to their morphogenesis, functional interaction, and special physiological roles. These plant organs will also be studied in relationship to their interaction with environmental factors such as air and soil. The major plant groups will be studied from the algae through the Angiosperms. The interactions of the plants in each of these groups will be considered with respect to such concepts as energy flow, competition, parasitism, plant succession, and biome composition. Major emphasis will be placed on basic concepts of population genetics and evolution.
Prerequisite: BI 171. Hours of class per week: 3. Hours of lab per week: 3.

BI 173 Animal Biology 4 s.h.
An evolutionary survey of the animals from Protozoa through Chordata, and their ecology. Both gross and microscopic structures of vertebrates and invertebrates will be studied in relation to their development, functional interactions, and special physiological roles. These concepts shall be related to paleontology, biogeography, and population genetics, so that the student will be aware of the evolutionary significance of the structures studied. Emphasis will be placed on vertebrate history and behavior, especially as it concerns the origin of man.
Prerequisite: BI 171 or permission of instructor. Hours of class per week: 3. Hours of lab per week: 3.

BI 181 Anatomy and Physiology 4 s.h.
The study of anatomy and physiology stressing the structure of the vertebrate body with reference to man. Emphasis is placed on the integrated development of structure and function in man with special reference to cellular, skeletal, muscular, digestive, respiratory, and endocrine function.
Prerequisite: SC 141 or BI 171. Hours of class per week: 3. Hours of lab per week: 3.

BI 182 Anatomy and Physiology 4 s.h.
The study of anatomy and physiology stressing the function of vertebrate organ systems with special reference to those of man. Emphasis is placed on the function of muscle contractions, metabolism, electrolyte balance, surface phenomena, excitation, and conduction as they are related to the function in the organ system.
Prerequisite: BI 181. Hours of class per week: 3. Hours of lab per week: 3.
MICROBIOLOGY

BI 282 Microbiology 4 s.h.

This course explores the morphology, physiology, and ecology of the major groups of microorganisms. Emphasis will be placed upon recent developments in the field of disease, immunology, and industrial applications. The laboratory will illustrate latest techniques in identification, culturing, and isolation of microbes as well as modern applications of microbiology.

Prerequisite: BI 172. Hours of class per week: 3. Hours of lab per week: 3.

CHEMISTRY

CH 173-174 Fundamentals of Chemistry 4 s.h. each semester

A course in the fundamentals of chemistry stressing basic principles in an essentially non-mathematical treatment of such topics as chemical bonding, periodicity, state of matter, solutions, atomic theory, and kinetic theory. Laboratory work involves classical experiments and open-ended problem solving situations.

Hours of class per week: 3. Hours of lab per week: 3.

CH 175-176 College Chemistry 4 s.h. each semester

A course in the fundamental principles and laws of chemistry. Topics included are: atomic theory, the Periodic Law, chemical bonding, chemical equations, and stoichiometry, states of matter, solutions, thermodynamics, kinetics, chemical equilibrium, electrochemistry, selected representative families from the Periodic classification, nuclear chemistry and selected topics from organic chemistry. Laboratory experiments illustrate the fundamental principles and provide an introduction to qualitative and quantitative analysis.

Prerequisite: 3 years of high school mathematics or college algebra, high school chemistry or physics helpful. Hours of class per week: 3. Hours of lab per week: 3.

CH 221-222 Organic Chemistry 4 s.h. each semester

An integrated course treating aliphatic and aromatic organic compounds from a structural approach. Reaction mechanisms and kinetics are stressed. The laboratory is designed to familiarize the student with basic techniques of organic chemistry. Some of the topics include: alkanes, alkenes, alkynes, cyclic aliphatic hydrocarbons, benzene, resonance, electrophilic aromatic substitution, alcohols, alkyl and aryl halides, ethers and epoxides, carboxylic acids, amines, aldehydes, ketones, carbohydrates, polynuclear aromatics, and heterocycles.

Prerequisite: CH 175-176. Hours of class per week: 3. Hours of lab per week: 4.

ELECTRICITY AND ELECTRONICS

EL 121 Electricity 4 s.h.

This first course in the Electrical Technology curriculum investigates the concepts of current, voltage, and power as applied to D.C. network analysis. The nature of resistance, inductance, and capacitance is also studied. The fundamental laws of electric circuits and the nature of magnetic circuits are also covered.

Prerequisite: High school algebra. Hours of class per week: 3. Hours of lab per week: 3.

EL 122 Electricity 4 s.h.

EL 122 is a continuation of EL 121 to which a study of A.C. circuits is incorporated. Topics covered include impedance, reactance, resonance, voltamperes, power, and vector diagrams for both single phase and three phase systems. Special attention is directed toward mesh current analysis and application of basic network theorems. The transformer is introduced and application of non-sinusoidal excitation is studied briefly.

Prerequisites: EL 121. Hours of class per week: 3. Hours of lab per week: 3.
ELECTRONIC  4 s.h.

This course introduces the student to electronics through the study of vacuum tubes and their associated circuits. The characteristics of the diode, triode, tetrode, and pentode are each discussed individually as well as the design limitations of their circuits. Specific topics investigated include: rectifiers, filters, equivalent circuits, load lines and graphical analysis, classes of operation, voltage and power amplifiers, coupling and frequency limitations, and the application of feedback.

Prerequisite: EL 122. Hours of class per week: 3. Hours of lab per week: 3.

EL 222  ELECTRONIC  4 s.h.

EL 222 develops the area of semiconductor electronics and exploits the characteristics of junctions, transistors, and their circuits. Transistor amplifiers, and their basic configurations, analytical and graphical analysis including bias stabilization, coupling and feedback principles are studied. Additional investigation includes power amplifiers, oscillators, and wave shaping circuits employing both vacuum tubes and transistors. The basics of communication electronics is introduced.

Prerequisite: EL 221. Hours of class per week: 3. Hours of lab per week: 3.

EL 223  ELECTRIC MACHINES  3 s.h.

Electric Machines 223 is concerned with the operation, construction, and characteristics of rotating machinery, including the winding geometry, armature reaction, starting methods, speed control, ratings, and operational characteristics for both motors and generators. The topics of speed control, efficiency, rotary amplifiers are also investigated. The testing, rating, connection of both current and voltage transformers, and their vector diagrams are also studied as applicable to single phase and three phase usage. Vector diagrams, short circuit tests and open circuit tests, autotransformers, and efficiencies are included.

Prerequisite: EL 131. Hours of class per week: 2. Hours of lab per week: 2.

EL 224  ELECTRIC MACHINES  3 s.h.

This course in electric machines is an extension of EL 223 dealing with the study of polyphase motors and generators including induction motors, synchronous motors, and industrial control applications of electric machines. Methods of speed control and characteristics of single phase motors are stressed. The application of these devices to the system is introduced by a brief study of control system parameters and their characteristics.

Prerequisite: EL 223. Hours of class per week: 3. Hours of lab per week: 2.

EL 225  ANALOGUE COMPUTERS  2 s.h.

Modern computing systems are approached through a survey of their evolutionary development and their basic elements. Operational principles of electronic computing devices and circuits capable of performing arithmetic operations and function generation are investigated in detail. Use of these devices is presented in the actual programming and use of analogue computing systems, including amplitude and time scaling as applicable to solution of simultaneous algebraic and time dependent equations.

Prerequisite: EL 122. Hours of class per week: 1. Hours of lab per week: 2.

EL 226  DIGITAL COMPUTERS  2 s.h.

This course is a continuation of EL 225 as related to digital computer systems. The electronic digital computer is studied by investigation of applicable number systems and related arithmetical operations, Boolean algebra, and the characteristics of digital signals. Study of circuitry and operational units includes magnetic devices, counters, adders, registers, logic circuits, memory systems, input and output sections, and computer control with brief mention of programming.

Prerequisite: EL 225. Hours of class per week: 2. Hours of lab per week: 2.

EL 227  INSTRUMENTATION  1 s.h.

Instrumentation EL 227 provides the electrical student with an appreciation for the operational principles of various measurement and laboratory devices. Study of the oscilloscope, error propagation due to uncertainties, resistor coding, meter movements, and construction of the VOM and the VTVM is included.

Prerequisite: EL 122 and PH 176. Hours of lab per week: 2.
INSTRUMENT

EL 228 Instrumentation 1 s.h.
This course is a continuation of EL 227 and concerned with the study of A.C. and D.C. bridge circuits, the operation of basic electrical sensors, and the study of various types of tube and transistor testing instruments. Other topics covered include test methods applicable to audio and radio frequency circuits.
Prerequisite: EL 227. Hours of lab per week: 2.

GRAPHICS

ENG 171 Engineering Graphics 3 s.h.
The course covers drafting work in lettering, use of drawing instruments including the drafting machine and parallel straight edge, geometrics, orthographic projection, cross sections, axonometric projection, intersections, and sketching.
Hours of class per week: 3.

ENG 172 Engineering Graphics 3 s.h.
Course covers development, detail and assembly drawings, screw thread work, production, dimensioning, charts and graphs, and gearing.
Prerequisite: ENG 171. Hours of class per week: 3.

ENG C 175 Electrical Graphics 3 s.h.
This electrical graphics course is concerned with basic drafting including orthographic projection, geometrics, cross sections, auxiliary projections, size description, and axonometric projections.
Hours of class per week: 3.

ENG C 176 Electrical Graphics 3 s.h.
This course covers fastening devices, surface development, electrical symbols, various types of wiring diagrams, circuit board layout, charts and graphs, and problems involving the development of a complete set of plans and specifications for a piece of electrical equipment.
Prerequisite: ENG C 175. Hours of class per week: 3.

NURSING

INTROD NURS
NU 100, Introduction to Nursing Science 5 s.h.
This course stresses the fundamentals of nursing. Content is based on an understanding and application of scientific principles derived from the physical, biological, and behavioral sciences. Emphasis is given to nursing problems and the development of beginning skills in nursing care.
Completion of, or concurrent registration in: BI 181, SS 291. Hours of class per week: 3. Hours of lab per week: 6.

INTROD NURS
NU 101 Nursing Science 7 s.h.
This course emphasizes the nursing care of mothers and children as part of the family unit. Topics include the physical and emotional, psychosocial problems of the mother and newborn, health problems which occur in the maternity-newborn cycle, and minor illness of children. Correlated theory and practice in classroom hospitals, and other community agencies.
Prerequisite: NU 100. Completion of, or concurrent registration in: SS 291, BI 182. Hours of class per week: 4. Hours of lab per week: 8.

NU 203–204 Nursing Science 10 s.h. each semester
This course stresses the complex health problems of children and adults who are ill. There is correlated theory and practice in nursing intervention related to physical or mental illness with emphasis given to prevention, rehabilitation, and therapy.
Prerequisite: NU 101. Hours of class per week: 4. Hours of lab per week: 12.
PH 131–132  Physics 4 s.h. each semester
A comprehensive course stressing the fundamentals of physics, designed for biology, chemistry, engineering, mathematics, and physics majors. First semester stresses the fundamentals of mechanics, heat and thermodynamics. Second semester includes the study of electricity and magnetism, sound and optics, atomic and nuclear physics.
Prerequisites: High school physics or PH 175–176, high school mathematics through trigonometry, and concurrent registration in MA 157–158. Hours of class per week: 3. Hours of lab per week: 3.

PH 175 Physics 4 s.h.
The fundamental concepts of mechanics, quantum mechanical model of atoms and molecules, velocity and acceleration, force and motion, momentum and collisions, work, power and energy, sound and wave motion are introduced and developed. Use of the slide rule is also taught.
Prerequisites: High School Algebra. Hours of class per week: 3. Hours of lab per week: 3.

PH 176 Physics 4 s.h.
Temperature, heat and thermodynamics, electrostatics, direct current, magnetic fields and forces, alternating current, geometrical optics, interference and diffraction, and modern physics are covered.
Prerequisites: PH 175. Hours of class per week: 3. Hours of lab per week: 3.

PH 231 Electromagnetic Theory 4 s.h.
An intensive course in electricity, magnetism, and electromagnetic waves. Topics studied include: electrostatics, field strength and potential, capacitors and dielectrics, current and resistance, Ohm's law, analysis of DC circuits, Kirchhoff's rules, moving charges and magnetic fields, Ampere's law, electromagnetic induction, alternating currents, electric and magnetic properties of matter, Maxwell's equations and solutions, characteristics of AC circuits, cavity resonators and waveguides, and properties of electromagnetic waves.
Prerequisite: PH 131–132 and concurrent registration in MA 257. Hours of class per week: 3. Hours of lab per week: 3.

PH 232 Modern Physics 4 s.h.
The course introduces the student to the fundamentals of quantum physics as applied to radiation, nuclei, atoms, molecules, and solids. Topics covered include: the dual nature of matter and radiation, photoelectric effect, Compton effect, X-rays, pair production and annihilation, de Broglie waves, electron diffraction, uncertainty principle, Bohr model of the atom, Schrödinger theory, nuclear structure, radioactivity, nuclear fusion and fission, quantum statistics, masers and lasers, molecular binding, and the band theory of solids.
Prerequisites: PH 131–132 and concurrent registration in MA 258. Hours of class per week: 3. Hours of lab per week: 3.

PH 235 Mechanics 3 s.h.
An intensive course in mechanics covering vector algebra, statics and dynamics of particles and systems of particles, work and energy, impulse and momentum, conservation laws, relativistic dynamics, harmonic oscillators, resonance, and coupled oscillators. Concepts of rigid body are introduced. Centroids, angular momentum, moment of inertia tensor, parallel axis theorem, kinetic energy of rotational invariance, spinning top, gyroscope, and central forces are also covered.
Prerequisites: PH 131–132 and concurrent registration in MA 257. Hours of class per week: 3.

PH 236 Mechanics 3 s.h.
A continuation of PH 236, with particular emphasis on engineering applications of mechanics in a wide range of fields. Topics studied in depth are the applications of the principles of mechanics on rigid bodies at rest and in motion, including the force and moment laws of equilibrium for various force systems, trusses, frames, beams and cables, stress tensor and strain tensor, friction, method of virtual work, kinematics and kinetics of rigid bodies, and deformable bodies.
Prerequisites: PH 235. Hours of class per week: 3.
SCIENCE

SC 141 Introductory Biology 3 s.h.

The human relevance and social implications of biology. The origin, evolution, and nature of living systems. Cellular anatomy, physiology, and energetics discussed in genetic and ecological perspective. Observation, interpretation, and library research are integrated by means of written laboratory reports. Laboratory study of behavior of living organisms, microscopy of selected native flora and fauna, elemental experiments in biochemistry, biophysics and genetics are included.

Hours of class per week: 2. Hours of lab per week: 3.

SC 142 Introductory Biology 3 s.h.

A biosystematic approach to plant and animal taxa, both living and extinct, utilizing representative fossils and live specimens when available. An understanding of man's origin and place in the biosphere is complemented by topics from comparative anatomy, physiology, and medicine as they relate to the human organism.

Observation, interpretation, and library research are integrated by means of written laboratory reports. Included are: dissection and micro-anatomy of representative invertebrates, vertebrates, and plants, field collection, identification, and study of plants and animals of biologic interest.

Hours of class per week: 2. Hours of lab per week: 3.

SC 143 Earth Science 3 s.h.

An introduction to physical geology, geomorphology, and selected topics in astronomy and meteorology. Emphasis on earth cycles and dynamics. Lab work includes minerals and rock, topographic maps, and local field trips.

For non-science majors.

Hours of class per week: 2. Hours of lab per week: 3.

SC 144 Earth Science 3 s.h.

The study of earth history, emphasizing local paleontology and paleogeography wherever relevant. A short review of the principles of stratigraphy, and an introduction to oceanography. Lab work includes fossil collecting at nearby sites. For non-science majors.

Prerequisite: SC 143. Hours of class per week: 2. Hours of lab per week: 3.

SOCIAL SCIENCES

ECONOMICS

EC 181 Micro-economic Analysis 3 s.h.

This course develops and applies the fundamental concepts of micro-economic analysis. It explains the behavior of the company as it affects the efficiency of the resource allocation and use, and it analyzes income distribution and the problem of poverty in our economy.

Hours of class per week: 3.

EC 182 Macroeconomic Analysis 3 s.h.

This course explains the behavior of Gross National Product in terms of its important parts. It analyzes how and why the government applies monetary and fiscal policies to affect the behavior of G.N.P.

Hours of class per week: 3.
History

SS 183 Modern Western Civilizations 3 s.h.
An introductory course in Western Civilization, beginning around the tenth century. The course examines the major social, political, and economic ideas, and their contributions to the Western heritage.

Hours of class per week: 3.

SS 184 Modern Western Civilizations 3 s.h.
Follows the same basic plan as SS 183 and is a continuation of that course to the present. The course enables the student to identify contributions made to the Western heritage, changing patterns of power in the Western world, and their implications for the future.

Hours of class per week: 3.

SS 263 Ancient Civilizations 3 s.h.
A study of the history and significance of the major civilizations of the ancient world from ca. 1000 B.C. until the end of the Roman Empire in the West.
Prerequisite: SS 183 and SS 184 or permission of the instructor. Hours of class per week: 3.

SS 283 Survey of American History 3 s.h.
A survey of the political, social, and intellectual development of the United States from the Colonial period to post-Reconstruction.

Hours of class per week: 3.

SS 284 Survey of American History 3 s.h.
A continuation of SS 283 from Reconstruction to the present. Emphasis is placed on the changing character of the American society and its role in international affairs.

Hours of class per week: 3.

SS 285 The Soviet Union 3 s.h.
A study is made of the social, political, and economic conditions in Czarist Russia prior to the 1917 Revolution to establish a common background. Emphasis is placed on a study of the Soviet Union since the Bolshevik Revolution with special examination of Marxism, the Soviet government, the Communist Party, and the Soviet Union in international affairs.

Prerequisite: SS 183 and SS 184. Hours of class per week: 3.

SS 286 Twentieth Century Europe 3 s.h.
The course begins with a study of the Treaty of Versailles and stresses the major political, social, economic, and intellectual movements and reactions to them in England, France, Germany, Italy, and the Soviet Union.

Prerequisite: SS 183 and SS 184. Hours of class per week: 3.

Political Science

SS 282 Introduction to American Government 3 s.h.
This introductory course supplies the factual information about the structure and procedures of American government. The course gives the student an opportunity to examine the effectiveness of the American political record as tested by democratic principles.

Hours of class per week: 3.
INTERN ORG

SS 287 International Organizations 3 s.h.
Emphasis is on an examination of international organizations with primary consideration of the United Nations. This involves a study of the major crises which have confronted the United Nations since its establishment and those which it presently faces: the use of the veto; the specialized agencies; and the constitutional and political issues involved in the question of Chinese membership. A one-day field trip to the United Nations in New York City is required.
Prerequisite: SS 183 and SS 184. Hours of class per week: 3.

SS 288 The Middle East 3 s.h.
This course surveys the political, economic, and social aspects of the Middle East beginning with the decline of the Ottoman Empire in the 19th Century and continuing to the present.
Prerequisite: SS 183 and SS 184. Hours of class per week: 3.

PSYCHOLOGY

SS 291 General Psychology 3 s.h.
A basic orientation in the psychology of human behavior is provided. A study of the aims and methods of psychological investigation, the inter-relationships of heredity and environment as determiners of behavior, and the structure and function of the human nervous system is included, as well as an investigation of learning, motivation, and the nature of emotion.
Hours of class per week: 3.

SS 297 Developmental Psychology 3 s.h.
A systematic examination of the patterns of development and behavioral changes which occur during each of the principal stages of life, i.e., childhood, adolescence, adulthood, and old age. Attention is given to cultural and social, as well as genetic forces affecting human development.
Prerequisite: SS 291. Hours of class per week: 3.

SOCIOLOGY

SS 281 Introduction to Sociology 3 s.h.
An introductory course designed to acquaint the student with the study of sociology as one of the sciences that deals with man in his relationships with the members of his society and the world in which he lives. The methods and objectives of sociological research, the varying patterns of social organization, and the study of society in relation to individual and group behavior are major areas of study.
Hours of class per week: 3.

SS 381 Social Problems 3 s.h.
An attempt to explore our rapidly changing society through the sociological analysis of significant social problems including juvenile delinquency, adult crime, organized gambling, alcoholism, drug addiction, personality disorders, suicide, marital problems, and discrimination. The course will attempt to introduce theory and methods for studying social problems and techniques for understanding and coping with these problems.
Prerequisite: SS 281 and instructor’s permission. Hours of class per week: 3.

HEALTH, PHYSICAL EDUCATION, AND RECREATION

Two semesters of Physical Education are required for the Associate Degree.

SS 380 Physical Education 1 s.h.
A variety of lifetime sports will be scheduled based on the needs and interests of the student and the facilities available. Activities include golf, bowling, volleyball, weight training, archery, paddleball, and handball.
Prerequisite: Satisfactory medical exam.
Hours of class per week: 2.
PE 132  **Physical Education**  1 s.h.\(^*\)

Badminton, tennis, archery, softball, weight training, gymnastics, and tumbling are covered in a continuation of the lifetime sports series. Methods of achieving and maintaining fitness are stressed with emphasis on circuit training.

**Prerequisite:** Satisfactory medical exam.

**Hours of class per week:** 2.

**PE 031 Intramural Sports**

A student may elect two sports in the intramural leagues. Leagues are conducted in flag football, volleyball, basketball, bowling, badminton and softball. Individuals or teams may sign up at the Physical Education Office.

**Prerequisite:** Satisfactory medical exam.

**HE 135 Personal Health**  3 s.h.

A one-semester course dealing with the application of scientific principles of effective, healthful living. Topics include critical areas of health, the cause and effects of health problems, and the practical application of this knowledge toward positive action. Tobacco as well as environmental health, family hygiene, mental health, and social diseases will be covered.

**Hours of class per week:** 3.

**HE 136 First Aid & Safety Education**  3 s.h.

A one-semester course to include accident causation and prevention in industry, recreation, home, and community. The Red Cross standard and advanced first aid certification will be granted following satisfactory completion of emergency unit as outlined by the National Association (American Red Cross).

**Hours of class per week:** 3.

**PE 141 Basic Swimming**  1 s.h.\(^*\)

This course is designed for students who are either non-swimmers or marginal swimmers as determined by preliminary screening. It becomes a required course in lieu of PE 132 when a student cannot meet the criteria established for certification as a swimmer by the Physical Education department. The course objective is to have the student acquire enough basic knowledge and skill to effectively protect themselves and assist others, when in the proximity of water, under conditions of danger and stress. This course will be offered on a non-co-ed and co-ed basis (student option).

**Prerequisite:** Satisfactory Medical examination.

**Hours of class per week:** 2.

**PE 142 Advanced Swimming and Diving**  1 s.h.\(^*\)

This course is open to all students who pass the initial aquatic screening requirement for swimmer certification.

This aquatic unit is designed to develop and perfect all swimming strokes, basic dives and endurance. This course is co-ed.

**Prerequisite:** Satisfactorily passing the aquatic screening test and satisfactory medical examination.

**Hours of class per week:** 2.

**PE 143 Lifesaving and Water Safety**  1 s.h.\(^*\)

A course structured for the highly skilled swimmer. All students who pass the initial screening criteria must also pass an additional aquatic skill test to be eligible to enroll in this course. Basically, this individual should be able to do all the basic and advanced swimming strokes and have a reasonable level of stamina and endurance.

Upon successful completion of the course, a student, based on his newly acquired skill, will be able to effectively and efficiently assist or rescue a drowning individual. This class will be co-ed.

**Prerequisite:** Satisfactorily pass the aquatic screening test, and satisfactory medical examination.

**PE 144 Skin and Scuba Diving**  1 s.h.\(^*\)

This highly specialized course is being offered to meet the ever increasing needs and demands of men and women to live and explore beneath the lakes, rivers, and oceans of the world. Upon successful completion of this course an oceanarium, or aquatic center, will have the ways and means to use their newly acquired knowledge and skill to perform
underwater: explorations, photography, studies in marine biology, oceanography, archaeology, salvage and rescue operations.

This course will be open to those who pass the basic swimming screening test and who can:
1. Tread water, feet only (3 minutes);
2. Swim 500 yards (without stopping);
3. Tow an inert swimmer 40 yards;

4. Stay afloat 15 minutes without accessories or help;
5. Swim 15 yards underwater without a push off. NOTE: Fins may not be used in any of these tests.

Prerequisites: Satisfactorily pass the aquatic screening test and satisfactory medical examination. Hours of class per week: 2.

GENERAL EDUCATION

GE 011 Seminar on College Life 1 s.h.*
A seminar which focuses on the concerns of the entering student and assists him in effectively dealing with these concerns. The group discussion technique will be utilized to explore questions identified by the class members as being of significant interest to them.

Required for the Associate Degree, but GE 021 may be substituted.

GE 021 Personal Development 3 s.h.*
A seminar designed to promote individual self-awareness and self-understanding through group discussion. Rather than receiving formal instruction in an academic discipline, students are encouraged to explore informally a wide range of topics which are of immediate personal interest to them.

Admission only by permission of the instructor. May be substituted for GE 011, Seminar on College Life.

GE 022 Educational and Vocational Exploration 3 s.h.*
A seminar designed to aid students in formulating educational and vocational goals. Group discussion includes in depth examination of various occupations and professions in terms of educational requirements, job demands, and satisfactory advancement potential, financial rewards, and other aspects of employment.

Admission only by permission of the instructor.

GE 030 Improvement of Reading and Learning Skills 3 s.h.*
This is a basic or fundamentals course designed to assist the student in developing his reading and learning skills to the level of achievement necessary for college work. The course provides specific practice required to maintain these skills at a high level. Improvement will be sought in six areas of reading: vocabulary, comprehension, rate, critical reading, learning skills, and fluency.

GE 031 Improvement of Reading and Learning Skills 3 s.h.*
A continuation of GE 030 for those students who feel the need for further instruction in the area of reading and learning skills. Improvement will be sought in six areas: vocabulary, comprehension, rate, critical reading, learning skills, and fluency. An investigation of various forms of written material and the reading method that is employed in dealing with materials is being conducted.
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State University at Buffalo
State University at Stony Brook

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Downstate Medical Center
Upstate Medical Center

Colleges of Arts and Science
College at Brockport.
College at Buffalo
College at Cortland
College at Fredonia
College at Geneseo
College at New Paltz.

To be developed: College at Purchase (to begin instruction in 1971)
College in the Rome-Utica-Herkimer area

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State University College of Forestry at Syracuse University
State University Maritime College

Agricultural and Technical Colleges
Agricultural and Technical College at Alfred.
Agricultural and Technical College at Canton
Agricultural and Technical College at Cobleskill
Agricultural and Technical College at Delhi
Agricultural and Technical College at Farmingdale
Agricultural and Technical College at Morrisville
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New York State College of Agriculture at Cornell University
New York State College of Home Economics at Cornell University
New York State School of Industrial and Labor Relations at Cornell University
New York State Veterinary College at Cornell University

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Borough of Manhattan Community College
Bronx Community College
Broome Technical Community College
Community College of the Finger Lakes
Corning Community College
Dutchess Community College
Erie County Technical Institute
Fashion Institute of Technology
Fulton-Montgomery Community College
Geneese Community College
Herkimer County Community College
Hudson Valley Community College
Jamestown Community College
Jefferson Community College
Kingsborough Community College
Mahawk Valley Community College
Marine Community College
Marine Community College
New York City Community College of Applied Arts and Science
Niagara County Community College
North Country Community College
Onondaga Community College
Orange County Community College
Queensborough Community College
Rockland Community College
Saratoga County Community College
Suffolk County Community College
Sullivan County Community College
Tompkins-Cortland Community College
Ulster County Community College
Westchester Community College

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Columbia-Greene Community College (to begin instruction in 1969)
Community College No. 7, City of New York
Community College No. 8, City of New York
Schenectady County Community College (to begin instruction in 1969)

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State University Urban Center in Brooklyn
State University Urban Center in Buffalo
State University Urban Center in the Capital District
Branches in Albany, Schenectady and Troy
State University Urban Center in Manhattan

To be developed: State University Urban Center in Rochester (to begin operation in 1969)
COLLEGE CALENDAR 1969-70

SUMMER 1969

June 9  Registration for first summer session
June 16-  First summer session
July 18  
July 7-  
Aug. 22  Counseling and advisement for new students
July 14  Registration for second summer session
July 15  Last date to apply for admission to fall semester as a matriculated student
July 15  Last date to apply for financial aid for fall semester day classes
July 21-  
Aug. 22  Second summer session

FALL 1969

Aug. 22  Last date to pay fall semester fees by mail
Sept. 2  Faculty report
Sept. 3-5  Faculty seminar
Sept. 3-5  Student orientation
Sept. 5  Registration for all students not pre-registered
Sept. 5  Last date to pay fall semester fees without penalty
Sept. 8  Classes begin
Sept. 12  End of late registration; last date to add courses
Sept. 12  Last date to pay fees for fall 1969; fees subject to late penalty
Oct. 10  Last date for dropping courses without academic penalty
Oct. 31  Mid-term grades due
Nov. 8-14  Pre-registration and advisement for spring 1970
Nov. 26  Thanksgiving recess; classes end 10 p.m.
Dec. 1  Classes resume; last date to apply for financial aid for spring semester
Dec. 19  Winter recess; classes end
Jan. 2  Last date to apply for full-time admission for spring semester
Jan. 5-9  Final examinations
Jan. 16  Last date to pay fees for spring semester by mail
SPRING 1970

Jan. 20–21  Orientation for new students
Jan. 22  Registration for all students not pre-registered
Jan. 23  Last date to pay spring semester fees without penalty
Jan. 26  Classes begin
Jan. 30  End of late registration; last date to add courses
Jan. 30  Last date to pay fees for spring 1970; fees subject to late penalty
Feb. 27  Last date for dropping courses without academic penalty
Mar. 20  Mid-term grades due
Mar. 26  Spring recess begins; classes end 10 p.m.
Apr. 6  Classes resume
Apr. 6–17  Pre-registration and advisement for fall 1970
May 22  Classes end
May 23–29  Final examinations
June 4  Commencement

SUMMER 1970

June 8  Registration for first summer session
June 15  First summer and evening summer sessions begin
July 1  Last date to apply for admission for fall 1970
July 6–  Counseling and advisement for new students
Aug. 21  Registration for second summer session
July 13  First summer session ends
July 17  Second summer session begins
July 20  Last day of classes for second and evening summer sessions
## COLLEGE CALENDAR 1970-71

### FALL 1970

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<td>Aug. 21</td>
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<td>Sept. 2-3</td>
<td>Faculty seminar</td>
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<tr>
<td>Sept. 11</td>
<td>End of late registration; last date to add courses</td>
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<tr>
<td>Oct. 2</td>
<td>Last date for dropping courses without academic penalty</td>
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<tr>
<td>Nov. 2-15</td>
<td>Pre-registration and advisement for spring 1971</td>
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<tr>
<td>Nov. 25</td>
<td>Thanksgiving recess; classes end 10 p.m.</td>
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<tr>
<td>Nov. 30</td>
<td>Classes resume; last date to apply for financial aid for spring semester</td>
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### SPRING 1971

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</tr>
<tr>
<td>Jan. 29</td>
<td>Last date to pay fees for spring 1971; fees subject to late penalty</td>
</tr>
<tr>
<td>Feb. 26</td>
<td>Last date for dropping courses without academic penalty</td>
</tr>
<tr>
<td>Mar. 19</td>
<td>Mid-term grades due</td>
</tr>
<tr>
<td>Apr. 8</td>
<td>Spring recess begins; classes end 10 p.m.</td>
</tr>
<tr>
<td>Apr. 19</td>
<td>Classes resume</td>
</tr>
<tr>
<td>Apr. 19-30</td>
<td>Pre-registration and advisement for fall 1971</td>
</tr>
</tbody>
</table>
May 21 Classes end
May 24-29 Final examinations
June 3 Commencement

SUMMER 1971

June 7 Registration for first summer session
June 14 First summer and evening summer sessions begin
July 1 Last date to apply for admission for fall 1971
July 5- Counseling and advisement for new students
Aug. 20 Registration for second summer session
July 12 First summer session ends
July 16 Second summer session classes begin
July 19 Last day of classes for second and evening summer sessions
Aug. 20