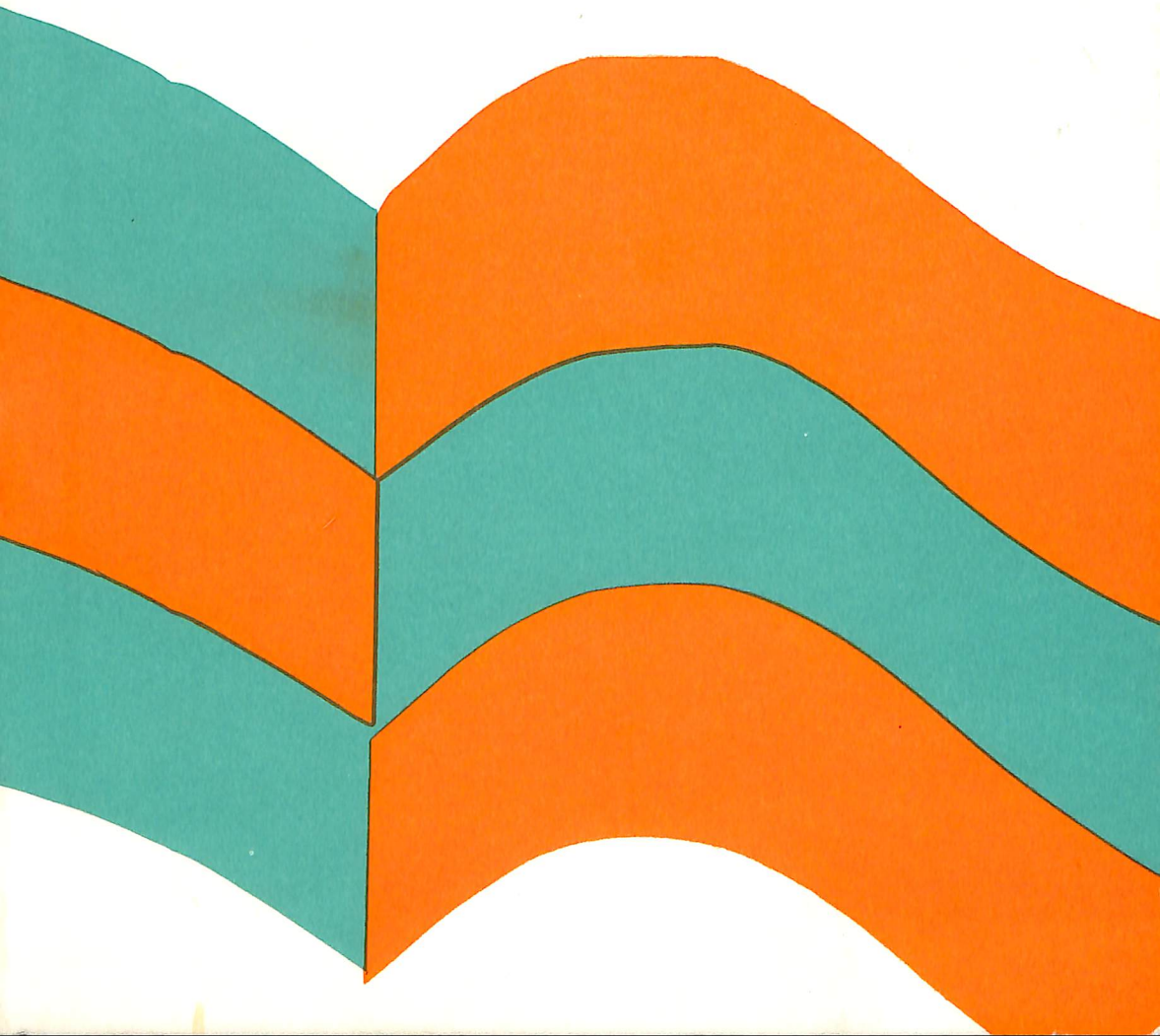


CATALOG 1977-78, 1978-79

delaware state college



CORRESPONDENCE DIRECTORY

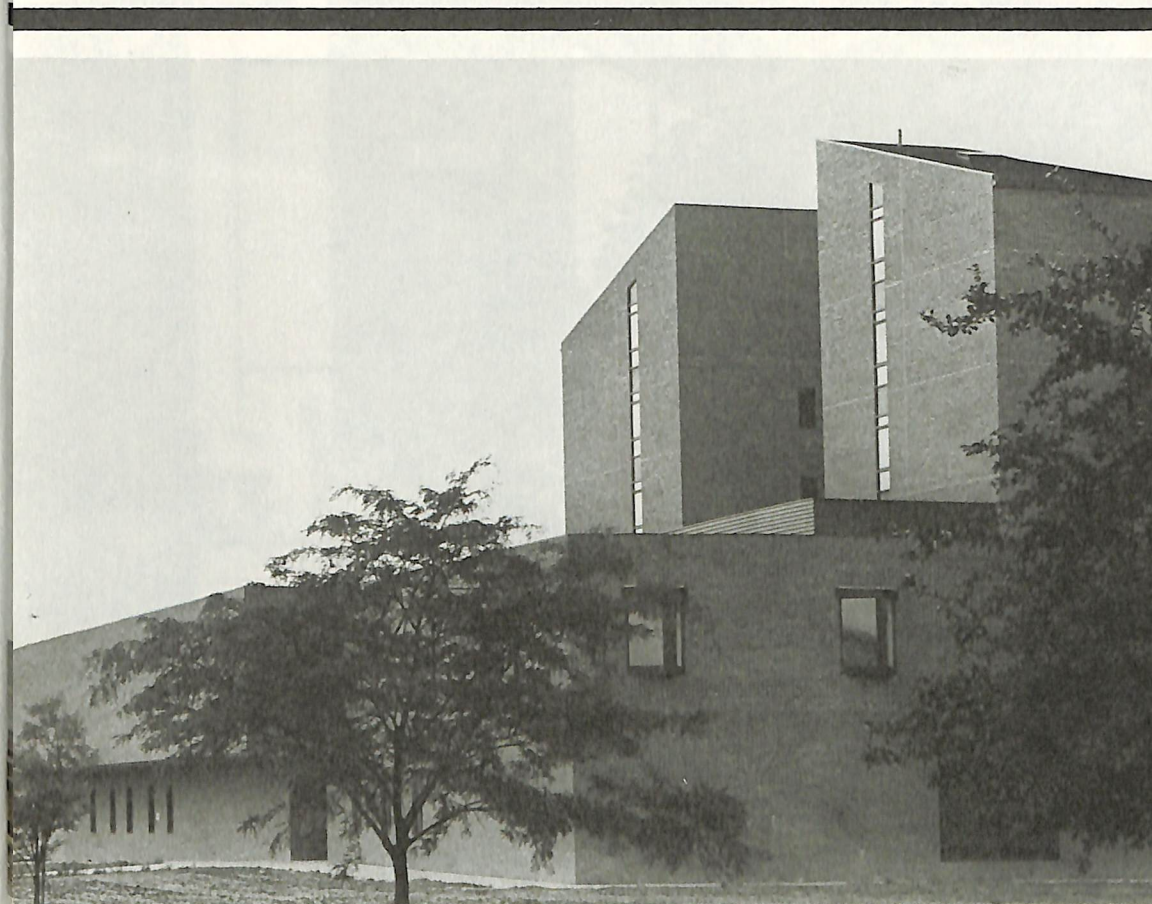
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|---|-------------------|
| OFFICE OF THE PRESIDENT | 678-4901-678-4902 |
| OFFICE OF THE ACADEMIC DEAN | 678-4904-678-4905 |
| OFFICE OF THE ASSISTANT ACADEMIC DEAN | 678-5164-678-5165 |
| Office of Continuing Education | 678-5164 |
| Office of Summer School | 678-5165 |
| OFFICE OF ADMISSIONS AND RECORDS | 678-4914 |
| Admissions | 678-4917 |
| Records | 678-4915 |
| OFFICE OF THE BUSINESS MANAGER | 678-4911-678-4912 |
| OFFICE OF THE DEAN OF STUDENTS | 678-4943-678-4944 |
| OFFICE OF THE DIRECTOR OF DEVELOPMENT | 678-4921-678-4922 |
| OFFICE OF THE DIRECTOR OF ALUMNI AFFAIRS | 678-5178-678-5179 |
| OFFICE OF THE DIRECTOR OF PUBLIC RELATIONS | 678-4924-678-4925 |
| OFFICE OF THE DIRECTOR OF COUNSELING SERVICES | 678-5106-678-5107 |
| OFFICE OF THE DIRECTOR OF CAREER PLANNING | 678-5141-678-5142 |
| OFFICE OF FINANCIAL AID | 678-4908-678-4909 |
| CONWELL HALL | 678-5144-678-4145 |
| EVERS HALL | 678-5146 |
| LAWS HALL | 678-5148-678-5149 |
| META V. JENKINS HALL | 678-5147 |
| TUBMAN HALL | 678-5150 |
| INFIRMARY | 678-5121-678-5122 |
| LIBRARY | 678-5111-678-5112 |
| MARTIN LUTHER KING JR. STUDENT CENTER | 678-5133-678-5134 |
| SECURITY | 678-5127-678-5129 |
| VETERANS' AFFAIRS | 678-5213-678-5214 |

All administrative Offices at the College are open five (5) days per week from 8:30 a.m. to 12:30 p.m. and from 1:30 p.m. until 4:30 p.m. Business may be transacted daily Monday through Friday with the exception of certain legal holidays.

The telephone Area Code for Delaware State College is 302. Interested persons should contact the College receptionist for telephone numbers not listed above. In order to reach the College receptionist dial 678-5155.

DELAWARE STATE COLLEGE

DOVER, DELAWARE 19901



Catalog Edition
1977-78, 1978-79



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The provisions of this publication are not to be regarded as an irrevocable contract between the student and Delaware State College. The college reserves the right to revise any provision or regulation at any time within the student's term of enrollment if it is deemed advisable. Advance notice of any change is given whenever possible.

The College reserves the right to refuse admission or to revoke admission to any person judged to be a danger to himself, other members of the college community, or to College property.

Academic Calendar

1977-1978

FIRST SEMESTER

| | |
|--|--|
| August 28 (Sunday) | Resident Halls Open |
| August 29-31 (Monday-Wednesday) | Freshman Orientation |
| September 2 (Friday) | Registration (Freshmen) |
| September 3-5 (Inclusive) | Labor Day Recess |
| September 6 (Tuesday) | Registration (Returning and Transfer Students) |
| September 7 (Wednesday) | Classes Begin |
| September 14 (Wednesday) | Late Registration Ends And |
| | Last Day For Adding Courses |
| September 23 (Friday) | Last Day For Grade Changes |
| October 12-14 (Wednesday-Friday) | Fifth Week Evaluations |
| October 19 (Wednesday) | Last Day to Remove Incomplete Grades |
| October 23 (Sunday) | Parents' Day |
| October 29 (Saturday) | Homecoming |
| November 16 (Wednesday) | Last Day to Drop Courses |
| November 24-27 (Inclusive) | Thanksgiving Recess |
| November 28 (Monday) | Classes Resume |
| November 28 - December 2 (Monday-Friday) | Pre-Registration |
| December 14-20 (Wednesday-Tuesday) | Final Examinations |
| December 20 (Tuesday) | First Semester Ends |
| December 21 (Wednesday) | Christmas Recess Begins |

SECOND SEMESTER

1977-78

| | |
|-----------------------------------|--------------------------------------|
| January 8 (Sunday) | Residence Halls Open |
| January 9-11 (Monday-Wednesday) | Freshman Orientation |
| January 12 (Thursday) | Registration |
| January 13 (Friday) | Late Registration Begins |
| January 16 (Monday) | Classes Begin |
| January 20 (Friday) | Late Registration Ends And |
| | Last Day For Adding Courses |
| February 3 (Friday) | Last Day For Grade Changes |
| February 5 (Sunday) | Founder's Day |
| February 20-22 (Monday-Wednesday) | Fifth Week Evaluations |
| February 24 (Friday) | Last Day to Remove Incomplete Grades |
| March 18-28 (Inclusive) | Spring Recess |
| March 29 (Wednesday) | Classes Resume |
| April 3 (Monday) | Last Day to Drop Courses |
| April 17-20 (Monday-Thursday) | Pre-Registration |
| May 8-12 (Monday-Friday) | Final Examinations |
| May 21 (Sunday) | Commencement |

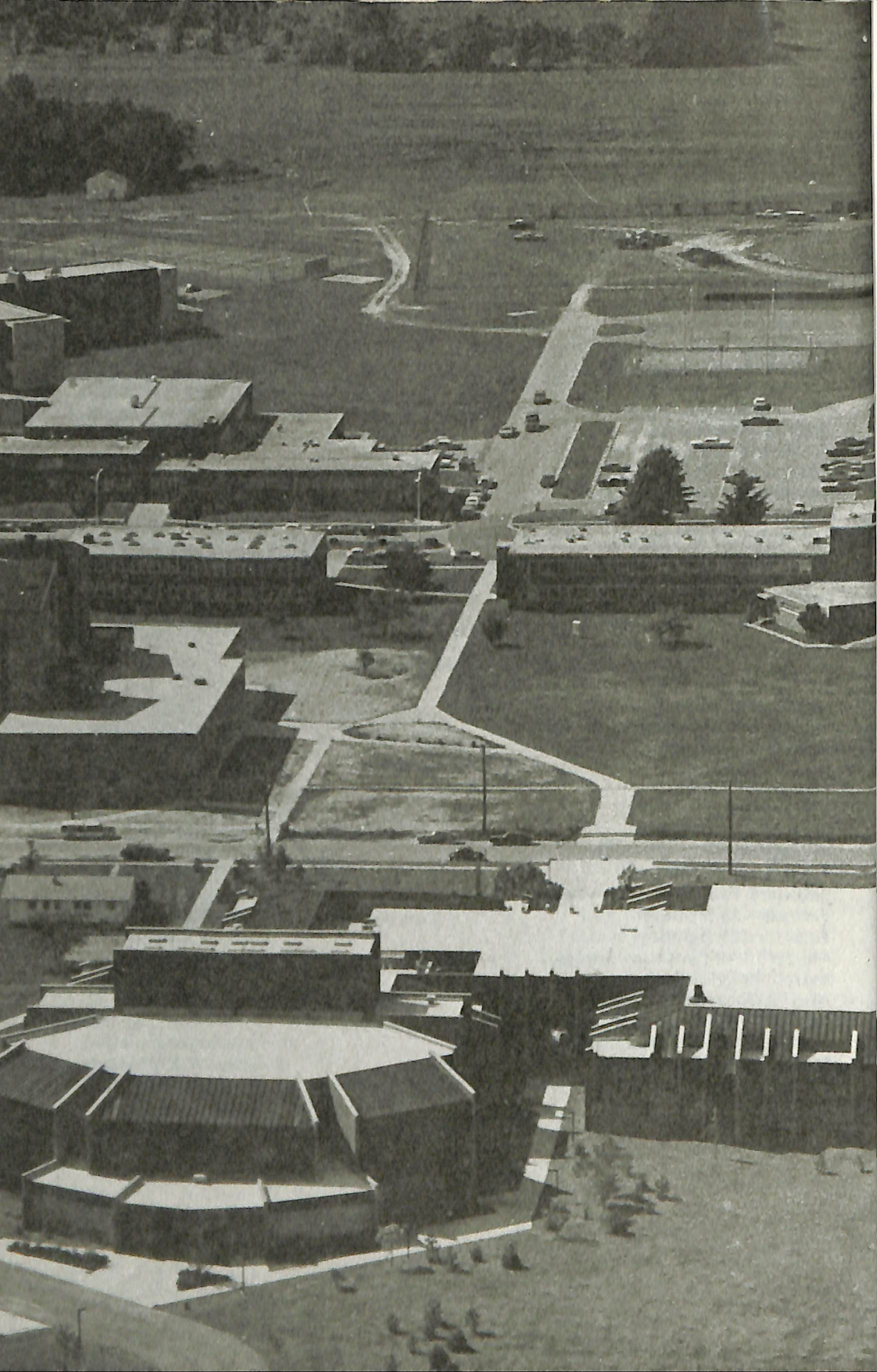
ACADEMIC CALENDAR

FIRST SEMESTER, 1978-79

| | |
|---|--------------------------------------|
| August 24 (Thursday) | Residence Halls Open |
| August 25-29 (Friday-Tuesday) | Freshman Orientation |
| August 31 - Sept. 1 (Wednesday, Thursday) | Registration |
| September 2-4 (Saturday-Monday) | Labor Day Recess |
| September 5 (Tuesday) | Classes Begin |
| September 5 (Tuesday) | Late Registration Begins |
| September 12 (Tuesday) | Last Day For Adding Classes |
| September 19 (Tuesday) | Last Day For Grade Changes |
| September 26 (Tuesday) | Opening Convocation |
| October 10 (Tuesday) | Fifth Week Evaluation |
| October 14 (Saturday) | Homecoming |
| October 17 (Tuesday) | Last Day To Remove Incomplete Grades |
| October 22 (Sunday) | Parent's Day |
| November 7 (Tuesday) | Election Day |
| November 15 (Wednesday) | Last Day To Drop Courses |
| November 23-25 (Thursday-Sunday) | Thanksgiving Recess |
| November 27 (Monday) | Classes Resume |
| November 27-30 (Monday-Thursday) | Pre-registration |
| December 15-21 (Friday, Monday-Thursday) | Final Examinations |
| December 22 (Friday) | First Semester Ends |
| December 23 (Saturday) | Christmas Recess Begins |

SECOND SEMESTER 1978-79

| | |
|-----------------------------------|--------------------------------------|
| January 7 (Sunday) | Residence Halls Open |
| January 8-10 (Monday-Tuesday) | Freshman Orientation |
| January 11 (Thursday) | Registration |
| January 12 (Friday) | Late Registration Begins |
| January 15 (Monday) | Classes Begin |
| | Martin Luther King Day |
| January 17 (Wednesday) | Late Registration Ends and |
| | Last Day For Adding Classes |
| February 2 (Friday) | Last Day for Grade Changes |
| February 19-21 (Monday-Wednesday) | Fifth Week Evaluation |
| February 23 (Friday) | Last day to Remove Incomplete Grades |
| February 25 (Sunday) | Founders' Day |
| March 10-18 (Saturday-Sunday) | Spring Recess |
| March 19 (Monday) | Classes Resume |
| April 2 (Monday) | Last Day To Drop Courses |
| April 13-17 (Friday-Monday) | Easter Recess |
| April 17-20 (Tuesday-Friday) | Pre-Registration |
| May 7-11 (Monday-Friday) | Final Examinations |
| May 20 (Sunday) | Commencement |



THE COLLEGE

PHILOSOPHY

Delaware State College is a group of scholars actively seeking the truth, creatively teaching the truth, and carefully preserving the truth. In this regard, the Faculty, Staff, Administrators, and Student Body of the College claim the right to investigate the entire province of knowledge and to communicate their findings to all who can make good use of it.

In keeping with the tradition of the College as a progressive, liberal arts institution, Delaware State College is committed, foremost, to academic excellence and intellectual competence. Freedom of expression and inquiry, the exchange of ideas, cultural activities, intensive classroom instruction, and numerous informal events of the campus community combine to ensure that each student of the College receives a thorough, marketable education.

Accordingly, teaching is also of primary importance to the Institution. Although the College affirms that the education of its student body is attained, in part, through the activities of the students themselves, it strives to provide and maintain an active corps of scholars, lecturers, and educators who are dedicated to the education and enlightenment of man.

To this end, the College strives to achieve the following Aims:

1. To provide a well-rounded liberal arts education with a concentration in either the sciences or humanities.
2. To provide service to the citizens of the state by increasing their knowledge and ability to make practical application of knowledge.
3. To develop the conceptual thinking ability and to nurture the inquiring mind of each student of the College.
4. To develop student skills in oral and written communication.
5. To encourage optimum physical development and the safeguarding of health.
6. To encourage students to serve their home, the community, the nation and the world.

HISTORY

On May 15, 1891, the Fifty-Eighth General Assembly of the State of Delaware passed "An Act to Establish and Maintain a College for the Education of Colored Students in Agriculture and the Mechanic Arts" by virtue of the Second Morrill Act of Congress approved August 30, 1890. The Morrill Act of 1890 provided a permanent annual endowment of twenty-five thousand dollars (\$25,000) for each land-grant college established under the provisions of the Morrill Act of 1862 and allowed a portion of the federal appropriation to be used for the endowment, support and maintenance of land-grant colleges for Negro youths in states which maintained separate educational facilities. This legislation provided for the establishment of Delaware State College.

Delaware State College has since developed into a 400 acre complex containing numerous modern buildings, the result of an intensive construction program inaugurated in 1960. The Student population is expected to reach 3,000 during the 1980-81 academic year and is drawn from the various sections of the United States, Africa, South America, Asia, and the Middle East. *The College provides special services to the State of Delaware and to neighboring states on an extended and increasing basis without regard to race, creed, or color.*

ACCREDITATION

Delaware State College is chartered by the State of Delaware. It is accredited by the Middle States Association of Colleges and Secondary Schools and the Delaware State Board of Education.

BOARD OF TRUSTEES

The Board of Trustees of Delaware State College is comprised of eleven members, six appointed by the Governor of Delaware and five elected by the Trustees. The Governor and the President of the College serve as ex-officio members of the Board.

THE CAMPUS AND FACILITIES

Delaware State College is located in Dover, Kent County, Delaware, 45 miles south of Wilmington on the Delmarva Peninsula. The campus is adjacent to U.S. Highway 13 which provides direct access to Norfolk, Virginia; Salisbury, Maryland; Wilmington, Delaware; Philadelphia, Pennsylvania; and Camden, New Jersey. Other connecting highways in the Dover area provide access to the Chesapeake Bay Bridge, Washington, D.C., Baltimore, Maryland, and points West. The New York Metropolitan Area can be reached via the Delaware Memorial Bridge and the New Jersey Turnpike which intersect highway 13 just south of Wilmington. Year-round regular bus service connects Dover with all these cities.

Dover, the capital of Delaware, is a community of approximately 25,000 people situated in the heart of the Eastern Shore within easy reach of the resort cities of Rehoboth Beach, Delaware; Ocean City, Maryland; and Cape May, New Jersey. The founding of Dover dates back to 1703. The city contains many colonial buildings and several historical sites, including the home of John Dickinson, signer of the Declaration of Independence and the Constitution of the United States.

The modern physical facilities of Delaware State College give excellent support to the various college programs. The following are of particular interest.

GROSSLEY HALL—This two story structure houses the majority of the College's Administrative Offices, as well as the new college Computer Center.

MEMORIAL HALL—Among the largest of the College's structures is this modern, well equipped center for health, physical education, and recreation where an indoor swimming pool, a gymnasium, faculty offices, and classrooms are maintained for the use of the Department of Health, Physical Education and Recreation.

WILLIAM C. JASON LIBRARY-LEARNING CENTER — This ultra modern, functional building serves as the academic hub of the campus. Utilizing the latest learning theories, the 60,000 square feet, six story building contains the main library, a considerable amount of audio-visual equipment and materials, and the Center for Communications Skills. An expanding collection of books, magazines, journals and other periodicals is being developed to meet the instructional, research, and recreational needs of the college and the community. In addition to its collection of traditional types of materials, the Library-Learning Center also contains extensive microfilm, microfiche and audio and video tape collections as well as large and small group instructional facilities with provision for individualized learning. Conference rooms serve to provide a meeting place for student organizations, faculty committees and community groups.



DELAWARE HALL—The Departments of Psychology and Sociology and Urban Affairs are located in this building. A small auditorium, the reading clinic, and psychology laboratories are located here.

LYDIA P. LAWS HALL—This residence hall houses freshman and sophomore women. Completed in 1963, it has a living capacity for 95 female students, an attractive and spacious lounge with patio, a recreation room, a completely equipped beauty parlor, a smaller lounge, a study room and a utility room on each floor, a modern furnished kitchen, and a laundry room with washers and dryers.

HARRIET TUBMAN HALL—This residence hall houses 106 freshmen women. It has an attractive lounge, beauty parlor, and recreation room.

META V. JENKINS HALL—This residence hall houses 221 sophomore, junior and senior women. It contains a lounge, kitchen, sewing room, and a staff apartment on each floor, a study room on each wing, a completely modern beauty parlor, a canteen, a recreation room, and a laundry room with washers and dryers.

SAMUEL L. CONWELL HALL—This residence hall is available for participants in special activity programs, i.e., athletics. It houses 194 male students. Included in this building are a student lounge, a canteen and a recreation room.

MEDGAR EVERS HALL—This residence facility houses 225 male students. It contains a lounge and a staff apartment on each floor, a barber shop, a canteen, and a recreation room.

CONRAD HALL—This building serves as the major dining facility on the campus. Open to students and faculty members, it has recently been expanded to a seating capacity of four hundred. History Department classrooms and offices are on the second floor of this building.

BUSINESS ADMINISTRATION AND HOME ECONOMICS BUILDING—This modern building is one of the newer instructional facility on the campus. It houses the Department of Economics and Business Administration and the Department of Home Economics. It contains highly specialized laboratories for instruction and research, reading rooms, quarters for data processing and computer equipment, a home management apartment, offices, and an auditorium.

HOME MANAGEMENT HOUSE—This is a residential facility of contemporary ranch design. It is fully equipped and furnished to house students and a home management instructor for alternating periods as required by the curriculum.

MARTIN LUTHER KING JR. STUDENT CENTER—This ultra-modern building was completed in 1967 and is the hub of student life on the campus of Delaware State College. It houses offices for student organizations, and several units for student personnel services, a post office, bookstore, canteen, bowling alley, exhibition room, recreation and entertainment rooms, meeting rooms, lounges and a large auditorium ballroom.

SCIENCE CENTER—This is a \$1,500,000 structure comprised of an astronomical observatory, vivarium laboratories, and classrooms for the biological sciences, chemistry, mathematics, physics, and science education. Also included are a radiation laboratory, offices, a research laboratory, a library, and an amphitheatre.

THE HEALTH CENTER — This modern health facility is adequately equipped and operated for the students by the College to provide primary health care.

CENTER FOR AGRICULTURAL AND NATURAL RESOURCES—This new and modern structure houses classrooms, laboratories, a farm mechanics workshop, and faculty offices for the Department of Agriculture and Natural Resources. Located adjacent to this structure is a greenhouse.

THE EDUCATION AND HUMANITIES CENTER—This modern facility accommodates the departments of art, music, English, foreign languages, philosophy, education, counseling, the Child Development Laboratory and the offices of the Dean of Student Affairs.

The new Education-Humanities Center includes an ultra modern theatre/auditorium with the capacity to seat 1,200 persons and is available for community use. The auditorium is designed to accommodate instruction, drama, recitals, ballet, lectures, panel discussions, and other community-college activities.

The basic stage configuration is proscenium form. However, the stage and seating arrangements are flexible enough to accommodate thrust stage activities. The auditorium is adaptable to intimate theater activities and large group instruction requirements. The seating space is designed to accommodate the varied opportunities that the College will have to relate to the Greater Dover Area.

FUTURE DEVELOPMENTS

Located in one of the fastest growing areas of the country, the enrollment of Delaware State College is increasing rapidly. To accommodate this dramatic increase, several new facilities have been projected.

Several new facilities have been completed recently. Other building projects are scheduled to begin in the immediate future. Included in these projects is the restoration of Loockerman House which is a fine example of a colonial Georgian mansion and is widely reputed to have been an underground railway refuge during the pre-Civil War Period.

The College is also participating in the Federal Government's Title III Program, which is provided for the Higher Education Act of 1965. Under the terms of this program, the College received a total of \$1,066,495 in federal funds for the academic years 1968-69 through 1973-74.

In 1976 the College received a \$2.5 million grant from the United States Office of Education to plan and develop programs over the next five years. These funds will enable the College to expand student services, upgrade faculty, and enrich curricula through introduction of computer-assisted instruction and expansion of computerized administrative services.



STUDENT AFFAIRS PROGRAM

The student personnel program is designed to provide services and programs that promote the kind of environment in which college students may develop into self disciplined, mature, and well balanced citizens. This service is intended to supplement the basic academic program of the College by generating opportunities for student involvement, creativity, achievement, and by fostering a positive climate for intellectual stimulation and growth.

Included in the student personnel program are opportunities for student interaction with the trustees, administration, and faculty on all matters concerning student life at the College. The program fosters student responsibility, student initiative, and the right of students to plan and execute. Additionally, the program is geared toward helping students resolve difficult personal and/or academic problems which may confront them, and toward encouraging students to make effective use of their time and the resources of the College.

STUDENT COUNSELING SERVICES

The College Counseling Center is designed and functions to offer any enrolled student the opportunity to work with a professional counselor in exploring and hopefully resolving problems and situations that may tend to impede his academic, personal, social, or vocational adjustment.

Individual and group counseling are the basic approaches or media employed by this staff in an effort to resolve student problems.

The Counseling Center functions on the basis of a "Student Development" concept which offers any student the opportunity to engage in emotional and maturational growth experiences, such as, human awareness groups, creativity groups, growth groups, communications skills groups, assertion training, etc.

Vocational interest inventory testing and other skills testing are offered for those students desiring this kind of service. This service is without charge.

Counseling services are offered in privacy and the information discussed therein is held in strict confidence.

FRESHMEN ORIENTATION — The few days prior to registration are used to orient new students to the campus, to interpret to them the goals and purposes of the college, to administer to them a battery of placement tests, and to enhance their adjustment as efficient college students.

During this period upper classmen serve as advisors to freshmen. Personal interviews and group meetings are provided to promote a better understanding between upper classmen, faculty, staff, and the administration. The freshmen orientation program also provides guidance to students in the selection of appropriate courses and with opportunities to discuss problems with their advisors.

ADVISEMENT—Faculty members act as advisors for all students. After official registration, each freshman is assigned an advisor in the department to which he has been admitted. If a student later changes the department to which he has been admitted, he is assigned to a different advisor who is familiar with courses and requirements in the new field of concentration.

Students are encouraged to consult their advisors for assistance in planning their registration for academic work and are urged to keep their advisors

informed of their academic progress through periodic conferences. When necessary, advisors will refer students to other offices.

STUDENT TUTORIAL PROGRAM—Under the direction of the College Counseling Center, the Student Tutorial Program is designed to provide tutorial service for all enrolled students who require such assistance.

Participation in the program is voluntary and is extended to individual students upon request. Students who request academic assistance through the Program are provided service through both individualized and group approaches.

The main thrust of these tutorial activities addresses the areas of the students' greatest scholastic weaknesses. Careful attention is given to the adjustment of first and second year students.

FINANCIAL AID

Delaware State College participates in the College Scholarship Service (CSS) of the College Entrance Examination Board. Participants in CSS subscribe to the principle that the amount of financial aid granted a student should be based upon financial need. The CSS assists colleges, universities, and other agencies in determining student need for financial assistance. Students who are enrolled for not less than twelve (12) credit hours in degree programs are eligible for special scholarships, grants, and loans if they meet all other criteria specified by the form of aid sought.

Financial assistance at the College is made available through scholarships, grants, loans, and part-time employment opportunities. All funds are administered by the Office of Financial Aid.

In order to meet the students' financial need, the College may offer a "package of aid" which includes a scholarship or grant, a loan, and a job, in various combinations. The use of such a "package" enables the College to provide aid, within the limits of available funds, to more students than could be helped through scholarships alone.

FEDERAL GRANTS AND LOANS

BASIC EDUCATIONAL OPPORTUNITY GRANTS—Undergraduate students attending an institution of higher education including nursing schools and proprietary schools, are eligible for a basic grant of \$1,400 a year minus the amount of expected family contribution. Part-time students are also eligible to receive basic grants according to a schedule of reduced amounts set forth by the commissioner. The grants are payable through the institution.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS—It is the purpose of this program to provide, through institutions of higher education, federal funds to assist in making available a higher education to qualified high school graduates of exceptional financial need, who for lack of financial means of their own or their families are unable to obtain a higher education without such aid.

Grants range from \$200 to \$1,000 based upon financial need. A student cannot receive a total grant award in excess of \$1,000 or one-half of the total student aid that he receives from all sources, whichever is less.

NATIONAL DIRECT STUDENT LOAN PROGRAM—The National Direct Student Loan Program was established to provide students with an opportunity to assist themselves. Funds are made available with extremely liberal repayment privileges to students who find it difficult to finance their college education. Repayment on loans does not begin until after graduation. The total amount of the loan does not have to be repaid until 10 years thereafter.

GUARANTEED STUDENT LOAN PROGRAM (GSLP) — makes funds available through a student's home town bank. In Delaware UNDERGRADUATES may borrow up to \$2,000 and GRADUATES up to \$2,500 for each academic year. Repayment of the loan is on a monthly basis beginning the first day of the eleventh month after the student leaves college. Interest is charged at 7 percent simple interest per year.

A student is eligible if his adjusted family income is less than \$15,000. If your adjusted family income is \$15,000 or more, you may be eligible if you submit to the lender a RECOMMENDATION from the post high school institution, based on an analysis of your need. For further information and appropriate forms, contact your Financial Aid Officer or your home town bank.

COLLEGE WORK-STUDY PROGRAM—The College Work-Study Program was established to stimulate and promote the part-time employment of students in need of the earnings from such employment to continue their education.

The College Work-Study Program thus provides additional financial assistance which can be combined, as far as feasible, with a loan or scholarship to the extent necessary to enable the student to meet his educational expenses.

STATE AND COLLEGE SCHOLARSHIPS, GRANTS AND LOANS

ATHLETIC GRANTS (up to full expenses)—Recipient must participate in varsity football, basketball, baseball, tennis, swimming, golf, wrestling, or track and be selected by a coach. Apply to the coach of a particular sport.

DEPARTMENTAL SCHOLARS (6/\$500)—Junior or senior standing; at least one full year of study at Delaware State College; 3.25 minimum cumulative grade point average; possess scholarly qualities of excellence in major field; intend to continue study beyond college; perform approved special supervised project in major field. Apply through major department chairman in spring of year prior to award.

EMERGENCY LOANS (up to \$25)—Students who need funds in the event of illness or death in the family may apply to the Office of the Dean of Students.

MUSIC SCHOLARSHIPS (\$100 to \$1000)—Must participate in College Band, Choir or other approved musical organization under the supervision of the Music Education Department. Apply through Department of Music Education in spring of year prior to award.

STATE SCHOLARSHIPS (Amount varies for 4 years)—Must be a Delaware Resident and meet the following requirements:

1. A candidate must have no less than a 3.0 average as computed on a 4.0 scale; no less than 85% when based on 100%; on no less than "B" when letter grades are used. Averages computed by the high school and confirmed by the Admissions Office are accepted.
2. A candidate must rank within the top 25% of his class based on academic courses in the areas of English, mathematics, science and social studies.
3. A candidate with a business background may be considered if he or she has taken academic English and has a "B" or better average in at least three (3) business courses.
4. A candidate must submit his scores made on national examinations such as SAT (CEE), OR ACT.

ACADEMIC SCHOLARSHIPS (unspecified)—Initial awards open to entering freshmen who rank in upper quartile (top ¼) by national norms of STEP entrance examinations; or exceed local norms on all STEP examinations; and possess a high school average of "B" or above. Awards are renewable. No application necessary. Selections are made by Scholarship Committee after examinations are

administered during Freshman Orientation Week each semester.

STATE STUDENT INCENTIVE GRANTS (SSIG) – are available to residents of the State of Delaware who are attending colleges and universities within the state. Students must be enrolled in an eligible institution and with demonstrated financial need the student may receive a maximum of \$1,500 per academic year.

PRIVATE SCHOLARSHIPS

ALLIED CHEMICAL FOUNDATION SCHOLARSHIP IN CHEMISTRY (1/\$1000) – Apply to the Department of Chemistry.

DELAWARE STATE COLLEGE ALUMNI ASSOCIATION SCHOLARSHIPS (4/\$250) – Awarded to students who have shown outstanding ability in the area of Fine Arts.

DIAMOND SHAMROCK CORPORATION SCHOLARSHIP IN CHEMISTRY (1/\$1000) – Apply to the Department of Chemistry.

DELAWARE STATE COLLEGE STAFF SCHOLARSHIPS (5/\$75)

DIAMOND SHAMROCK CORPORATION SCHOLARSHIP for Economics and Business Administration (1/\$500).

E. I. DuPONT de NEMOURS AND COMPANY SCHOLARSHIPS IN CHEMISTRY (2/\$750) – Apply to the Department of Chemistry.

EPSILON IOTA OMEGA CHAPTER, ALPHA KAPPA ALPHA SORORITY SCHOLARSHIP (1/\$150; 1/\$50)—First award is granted to the member of Delta Lambda Chapter at Delaware State College with highest cumulative grade point average. Second award to Chapter member earning the highest or next highest average in previous spring semester. Selection by Scholarship Committee is automatic if funds are made available to the College by the Sorority.

FOOD FAIR STORES SCHOLARSHIPS (5-6/\$250)—Initial awards are made to freshmen students from an accredited high school who have a scholastic average of 3.0 or above, show evidence of civic interest and leadership ability, and who are residents of Connecticut, Delaware, Florida, Georgia, Maryland, New Jersey, New York, Pennsylvania, Rhode Island or Virginia. Renewable with a minimum 2.75 grade point average. Apply to Scholarship Committee by June 15.

HERCULES INCORPORATED SCHOLARSHIPS (Amount Varies)—Awarded to upperclassmen who are majoring in accounting with a scholastic average of 3.0 or above. Apply to the Department of Economics and Business Administration.

INTERNATIONAL PLAYTEX AWARDS (2/\$500)—Recipients must be entering freshmen who are ranked in the upper half of their senior high school class, are residents of Kent County, Delaware and are recommended by their high school principal or guidance counselor. Apply to Scholarship Committee by June 15.

CHARLES JACOBS SCHOLARSHIP (1/\$100)—An award for foreign students who are enrolled at Delaware State College. Each year this scholarship will be awarded to one foreign student.

META V. JENKINS SCHOLARSHIP (1/\$200) – Awarded to a junior student from Philadelphia, Pennsylvania who is entering his senior year with a satisfactory record of conduct and scholarship. Student must need financial aid.

MOBIL OIL CORPORATION SCHOLARSHIP IN CHEMISTRY / CHEMICAL ENGINEERING (6/\$500) – Applications are available in the department of Chemistry.

RALSTON PURINA COMPANY SCHOLARSHIP (1/\$500)—Awarded to junior or senior students majoring in Agriculture who have demonstrated extraordinary potential and need financial assistance.

SICO FOUNDATION SCHOLARSHIP (\$2,000 for 4 years)—Open to entering freshmen from Delaware who are committed to majoring in elementary education and two years of elementary school teaching in Delaware upon graduation. Apply by March 1 to SICO Foundation on forms secured from high school counselor. Notify, Director of Financial Aid, Delaware State College, Dover, Delaware 19901.

MICHAEL A. R. WALSH SCHOLARSHIP IN CHEMISTRY (1/\$600) – Applications are available in the Department of Chemistry.

PROCEDURE FOR APPLYING FOR FINANCIAL AID

Candidates for admission to the College who wish to apply for financial aid should do so on Delaware State College Financial Aid Forms not later than February 15. Application forms may be obtained from the: Office of Financial Aid, Delaware State College, Dover, Delaware.

Students currently enrolled should apply on or before March 15 for assistance during the succeeding year.

All entering students are required to submit a copy of the Parents' Confidential Statement (PCS) to the College Scholarship Service, designating Delaware State College as a recipient of the PCS Evaluation not later than March 15. This material may be obtained from any secondary school or from the College Scholarship Service, P.O. Box 175, Princeton, New Jersey 08540.

APPLICATIONS FILED LATER THAN THE DEADLINE INDICATED ABOVE WILL RECEIVE CONSIDERATION PROVIDED FUNDS ARE AVAILABLE.

Financial Aid applicants should note that the aid application cannot be processed until the student has been approved for admission. Announcements of awards are made during the month of May in the case of new students, and during the month of July in the case of students currently enrolled.

RESIDENCE PROGRAM

Each residence hall has a director or staff assistant who is responsible for allocation of space, room assignments, coordination of maintenance, health, safety, custodial activities, and other administrative functions of the residence hall. The director, assisted by staff and student advisors, aids students in developing individual responsibility and advises the hall government in programming social, recreational, and cultural activities.

All rooms are rented for double occupancy, except those specifically exempted for Student Counselors or restricted due to size. A student may request assignments with a specific roommate. Written mutual requests are honored whenever possible. When assigning rooms, preference is given to *full-time day* students.

Residence halls registration periods will be based on the Academic Calendar. Specific dates and hours will be included in information forwarded to prospective students by the Director of Residence Halls. Rooms are furnished by the College with beds, study desks and chairs; clean sheets and pillow cases are furnished weekly. Students must provide bedspreads and blankets, if desired. Rooms are inspected periodically in accordance with the health and safety standards of the College.

Students are held responsible for the conduct that occurs in their room. Damage done to a room or its furnishings through carelessness or neglect is charged to the occupants.

THE STUDENT HEALTH SERVICES

The College maintains a Health Service which provides modern and excellent medical services to the student body. In addition to medical services rendered at the Health Center, the staff maintains a referral service to hospitals, medical consultants, X-Rays, laboratories and limited clinics available in the area.

The facilities of the Student Health Services are available to all full-time students without charge. Medical expenses beyond that, including referrals by the Health Services, are the personal responsibility of the student if he/she does not have adequate insurance coverage.

The Student Health Service furnishes medical care to full-time students only under certain conditions. The following are applicable:

1. A pre-admission history, health and physical examination form is on file at the Student Health Service completed by the student, his family, and a licensed physician, preferably the family physician.
2. A validated Delaware State College Student Identification Card must be presented in order to receive treatment. Lost I. D. Cards should be reported to the Dean of Student Affairs' Office and a note obtained from that office in order to be treated at the Health Service.
3. All referral services, consultants, laboratories, X-Rays, hospital emergency room services, clinics, etc., are made through the Student Health Service.
4. The College Insurance Program can only be utilized through the Student Health Service by full-time students. Students who carry other insurance should Xerox the insurance card and carry it with them at all times.
5. The College Health Service does not perform special physical examinations: pre-entrance, fraternity or sorority physical examinations.
6. All student medical records are confidential and the medical records nor any information therefrom shall only be released upon the written consent of the student.

The Health Service Staff consists of the following: two part-time physicians, three full-time registered nurses, six part-time registered nurses and one secretary. The objective of this staff is to provide the best in medical services to the College student body.

The Health Service Building contains six beds for in-patient care, two modern examining rooms and offices.

Student Health Service Hours

Regular session — 24 hours per day, seven days per week

Summer Session — 8:30 a.m.-4:30 p.m., Monday through Friday

CAREER PLANNING AND PLACEMENT

A staff of professional placement counselors is available for consultation concerning specific employment opportunities as well as more general counseling to assist students in the formulation of career plans. This service is available to all regularly enrolled students, evening school students, and alumni. Included in the service is the on-campus interview program, vocational interest testing, and individual counseling for all students.

More than 300 representatives of industry, business, government agencies, service organizations and school systems interview seniors in the Placement Center. Additionally, the Placement Center assists students in communicating with employers who do not conduct campus interviews.

The Career Planning and Placement Center maintains a reference library of over 400 volumes of occupational literature for use by all students. The Center also encourages them to explore career planning, personal and educational requirements for jobs, and employment trends early in their college lives. This is an attempt to integrate students' academic pursuits with their career objective.

THE STUDENT CENTER

The Martin Luther King, Jr. Student Center is a community center for students, faculty, staff, and alumni on the college campus. A program board sponsors a wide variety of educational, social, and recreational activities for the entire student body. This board, composed of appointed students and an advisor, serves to assist other organizations and the faculty in planning programs and entertainment for the student body.

In addition to the meeting rooms available to campus groups and college guests, other services offered by the Center include an all-campus information desk, and an on-campus reservationist for the Center. Two student lounges, an auditorium for large gatherings such as dances, banquets, etc. are also available to Campus groups. The canteen is also located in the Center where light snacks can be obtained. Other facilities in the Center include a game room which provides facilities for cards, billiards, and bowling, a post-office and a College Bookstore.

VETERANS' AFFAIRS

This program is designed to assist the veteran-student with the varied problems that are unique to the ex-serviceman and the serviceman who is attempting to achieve higher education.

Staffed with a full-time counselor and part-time workers, this office offers the following services: outreach, recruitment, and tutorial assistance.

All veterans and/or servicemen must contact this office when registering at Delaware State College if they wish to draw assistance under the G.I. Bill.

RELIGIOUS ACTIVITIES

Through its religious activities, the College seeks to provide opportunities for students to develop understandings of and appreciations for the place of religion in life, to deepen spiritual insights, and to make the practice of principles a vital part of the life of the well-educated citizen.

Religious activities are sponsored by the students in association with the Coordinator of Religious Activities. An annual feature of the religious life of the students at Delaware State College is observance of Religious Emphasis Week. All religious activities are voluntary and no religious groups are discriminated against at the College.

ATHLETIC ACTIVITIES

Delaware State College is currently a member of the Mid-Eastern Athletic Conference, District 19 of the National Association of Intercollegiate Athletics, and the National Collegiate Athletic Association.

The College fosters the idea that intercollegiate sports programs are of considerable significance in the total development of students for responsibility, leadership, and general effective citizenship.

Baseball, basketball, football, cross-country, track and field, tennis, swimming, wrestling, and golf are the intercollegiate sports in which the College participates.

The College also provides a comprehensive intramural sports program. A broad range of activities are planned for all students.

CULTURAL ACTIVITIES

The College offers a wide range of cultural activities throughout the Academic year. One of the most popular types of activities is the art exhibit. Each year there are several exhibitions in addition to the annual exhibition of student art work. Displayed are original works from various fields of art; painting, sculpture, drawing, print making, interior design, textiles and crafts.

STUDENT ORGANIZATIONS AND ACTIVITIES

The College recognizes the fundamental worth of co-curricular activities and encourages students to participate in activities designed to develop the knowledge and skills necessary to function effectively within organized groups.

A representative list of organizations and activities at Delaware State College is outlined below. More recent and detailed information concerning officers, membership and purposes of the different student organizations can be obtained from the Office of Student Affairs, Education and Humanities Building, Room 100.

STUDENT GOVERNMENT (SGA)—The self-governing body of all students. Provides leadership in student affairs, supervisors and coordinates student activities, represents the students in dealings with the faculty and the administration and is the official voice of student opinion. The following organizations and activities are under the leadership of the SGA:

Mens' Council—The governing body within the Residence Halls.

Womens' Senate — The governing body within the Residence Halls for Women.

STUDENT PUBLICATIONS

The Hornet — A bi-monthly student newspaper which attempts to cover all newsworthy campus events. Offers students practical experience in news reporting, feature writing, copy and proofreading, business management, and circulation.

The Statesman — An annual yearbook, containing broad coverage of the academic, social, and co-curricular aspects of student life during each academic year.

CLASS ORGANIZATIONS—Foster class activities, increase class effectiveness, and promote a feeling of unity between the class members.

| | |
|-----------------|--------------|
| Freshman Class | Junior Class |
| Sophomore Class | Senior Class |

DEPARTMENTAL ORGANIZATIONS—Foster a professional spirit among the members and deepen professional interest in major fields of study. Activities include, but are not limited to, lectures, talks, discussions, seminars, tours, and social functions. The following is a list of active departmental organizations:

American Chemical Society — Student Affiliate
 Biology Club
 Business Club
 Distributive Education Club
 Fine Arts Club
 Health and Physical Education Club
 History and Political Science Club
 Home Economics Club
 Los Conquistadores
 Mathematics Club

Music Club
 National Student Education Association
 Nursing Club
 Psychology Club
 Sociology Club
 VICA (Vocational Industrial Clubs of America)

HONOR SOCIETIES—Promote academic excellence in various major fields of study.

Alpha Kappa Mu
 Delta Mu Delta
 Epsilon Delta Epsilon
 Phi Alpha Theta

MUSICAL GROUPS—Provide opportunities for students to perform at various College Programs, including convocations and concerts.

College Concert Choir
 College Gospel Choir
 College Band

PROFESSIONAL SOCIETIES—Stimulate and foster interest in specific careers and related occupations. Activities include lectures, talks, discussions, films, and tours.

Phi Beta Lambda, Inc.
 Pre-Medical Society
 Student Music Educators National
 Conference, Student Chapter No. 369

RELIGIOUS ORGANIZATIONS—Students and Faculty members represent a variety of religious traditions. The programs of religious organizations are non-denominational and designed to stimulate the development of student life. The college provides opportunities for Worship, Group Interaction, Discussions and Services supervised by a Coordinator of Religious Affairs.

Newman Club
 Richard Allen Foundation
 Student Christian Association
 Wesley Foundation

GREEK LETTER ORGANIZATION—The Pan-Hellenic Council serves as the coordinating and governing body of all Greek letter organizations. It seeks to maintain a spirit of cooperation and unity among fraternities and sororities. Further, the Council helps each organization realize its goals and unites them under the Greek tradition.

FRATERNITIES

Alpha Phi Alpha
 Omega Psi Phi
 Kappa Alpha Psi
 Phi Beta Sigma

SORORITIES

Alpha Kappa Alpha
 Delta Sigma Theta
 Zeta Phi Beta
 Sigma Gamma Rho

SOCIAL ORGANIZATIONS—The Council on Independent Organizations (CIO) serves as the coordinating and governing body of all social fraternities and social organizations. These organizations are dedicated to promoting excellence in social activities on the campus, in the community, and the State.

Alpha Phi Omega
 Beta Phi Burgundy

Crescent Club
 Gamma Phi Omega
 Groove Phi Groove Social Club
 Esquire Club
 Iota Phi Theta
 Kappa Phi Omega
 Progressive Social Club LTD
 Sigma Gamma Rho
 Swing Phi Swing
 Vogue
 Wine Psi Phi

SPECIAL INTEREST GROUPS—Promote interests in various types of activities.

Black Student Union
 Commuter's Club
 Dramatic Guild
 Jazz Club Unlimited
 Karate Club
 Lyceum Committee
 Peripatetics
 Photography Club
 Student Center Program Board
 Writer's Club
 Veteran's Club

STUDENT RESPONSIBILITIES

Concurrent with student rights and privileges are certain student responsibilities. A student should use his time effectively in pursuit of his educational goals, maintain high standards of scholastic achievement, conduct himself with propriety, respect the rights and opinions of others, preserve healthful and wholesome physical and hygienic conditions, and actively participate in student life at the College.

Students are expected to observe the College regulations, uphold the reputation of the College, and devote themselves earnestly to their studies. They are expected to take pride in and to assist in the maintenance and preservation of college property.

Students should take courses for the purpose of learning and for their own personal growth and development. Except for cases of unusual circumstances, all students are expected to attend classes regularly and punctually. They should develop a wider understanding of themselves and their society. They should adopt the kinds of patterns and values which will be beneficial to them throughout their entire lives. It is important that each student conduct himself in such a manner as to be a credit to himself and to the College.

Students who lack integrity, are out for some selfish objective at the expense of others, who do things halfway and take shortcuts; or have any form of dishonesty—small or large, either to themselves or to others—are not the type of students who belong in this academic community.

Students should use their varied abilities to the fullest extent and make their years at Delaware State College a meaningful and profitable experience.

IDENTIFICATION CARDS

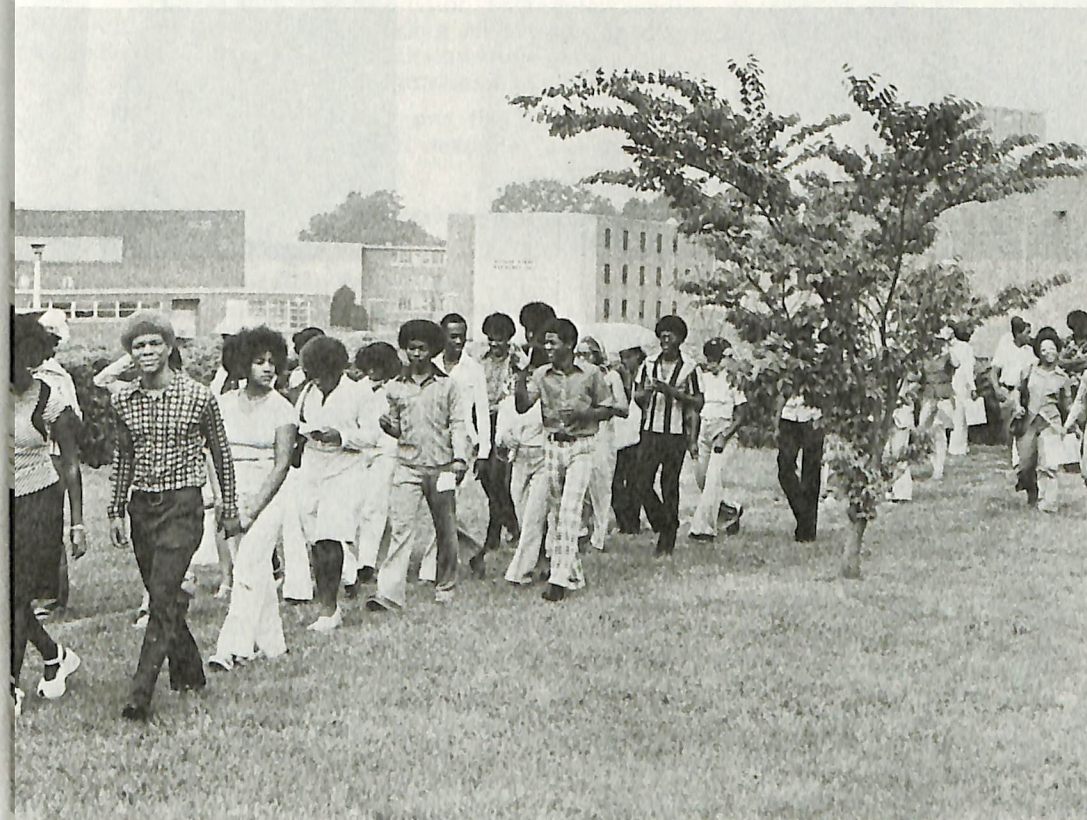
Permanent ID cards are issued to full-time students upon matriculation. This card is the student's official College identification and must be in his possession at all times. It is validated each semester upon payment of the

semester bill. The ID card is property of the College and must be surrendered upon request. It becomes void upon withdrawal and must be returned to the Office of Student Affairs. Loss of an ID card should be reported promptly to the Dean of Student Affairs so that a new card may be prepared. A charge is made for the replacement of an ID card.

AUTOMOBILES ON CAMPUS

Students may have automobiles on campus. Parking spaces are provided in designated areas for resident and commuter students.

Students with automobiles must register them promptly with the Campus Security Office. Official car registration must be presented when registering a car on campus. At that time, students will receive a bumper sticker that must be displayed as directed at all times. There is a small fee of one dollar (\$1.00) for this service.





ADMISSIONS

Admission to Delaware State College is granted all applicants whose academic and personal qualifications give promise of success in the College. Because of limited facilities, the College reserves the right to close admissions when no further space remains. It is therefore advisable for a high school student to make his college choice at the close of his junior year or early in his senior year.

All persons seeking admission to regular school sessions must apply formally through the Office of Admissions. An official and prompt notice of eligibility for admission will be sent to each applicant after his credentials have been evaluated. At the proper time after acceptance, an individual must follow the official registration procedure applicable to his academic status.

A person seeking admission to regular sessions should complete and submit his application, including all supporting documents, by the following deadline: First Semester Admission—June 1st

Second Semester Admission—December 1st

For certain special programs, the Summer and Evening Schools, and short course admissions, application deadlines are announced through other means appropriate to the situations.

Following are the admission requirements established by the Board of Trustees of the College:

Admissions: Application Procedures

1. An applicant may secure an application form from the guidance office of his secondary school or from the Admissions Office of the College. A letter of instructions is included.
2. The applicant should complete the personal part of the form and forward it with the application fee of ten dollars to the Office of Admissions. The Evaluation Sheet should be given to the high school counselor immediately upon submitting the application to the College. The high school counselor will complete this record and forward it to the Office of Admissions. The transfer applicant, in addition, should arrange to have forwarded official transcripts of all his previous college work.
3. Prior to enrollment, each new student is required to complete and submit the Health Form which includes health history a recent physical examination including an S.T.S. signed by a qualified physician. When the health form is completed, it should be mailed to Student Health Services, Delaware State College, Dover, Delaware 19901. The correct form for this is provided by the College. Each prospective student is advised to have his eyes and teeth examined and all defects corrected before entering the College.
It is recognized that in rare instances students may not be able to submit health forms prior to entering the school. However, students not submitting health forms by the end of the first two weeks of the semester during which they were admitted will be dismissed from the College.
4. **Applicants are advised that failure to give complete and accurate information will be grounds for cancellation of registration and dismissal from the College.**

Admission: High School Graduates

1. Admission to Delaware State College is granted all applicants without regard to race, creed, national or ethnic origin whose academic and personal qualifications give promise of success in college.
2. Admission is granted on the basis of grades, class rank, test scores, and such other evidence, including the recommendations of appropriate high school officials, as may be deemed indicative of the ability of the applicant to complete a course of study in the College leading to a degree of certificate.
3. Applicants from schools operating under experimental programs and applicants from unapproved high schools with 15 units of acceptable grades will be considered in the light of these, depending upon their performance on the battery of tests administered to all freshman. A satisfactory record normally includes completion of 15 acceptable units distributed as follows:

| | |
|--------------------------|---|
| English | 4 units |
| Mathematics | 2 units |
| History & Social Studies | 2 units |
| Science | 2 units (must include one Laboratory Sci) |
| Electives | 6 or 7 units |
4. Applicants with a required unit deficiency may be admitted. This deficiency must be made up before the first 30 hours of college work are completed. Make-up may be accomplished at any Delaware State High School Extension Center at the student's expense.
Affected persons should contact:
Supervisor, High School Extension Programs
State Department of Public Instruction
State House Annex
P.O. Box 697
Dover, Delaware 19901
5. The tests to be used for admission purposes shall be the Scholastic Aptitude Test (SAT) or the American College Test (ACT). The absolute minimum total varies with the strength of other criteria stated.
6. Those scores of tests taken in December or January of the senior year of secondary school are preferred. Results of tests completed during the junior year will be accepted.

Admission: Non-Graduates of High School

In lieu of a high school diploma, the College will accept high school equivalency certification from the State of Delaware or from the Armed Forces, confirming the fact that the applicant has earned scores on a High School Equivalency Examination (GED) with scores not less than forty (40) on each one of the five (5) tests, resulting in an average score not less than forty-five (45). Applicants with certification from other states who meet this requirement and who have become bona fide residents of the State of Delaware are eligible.

Admission: Out-of-State and Foreign Students

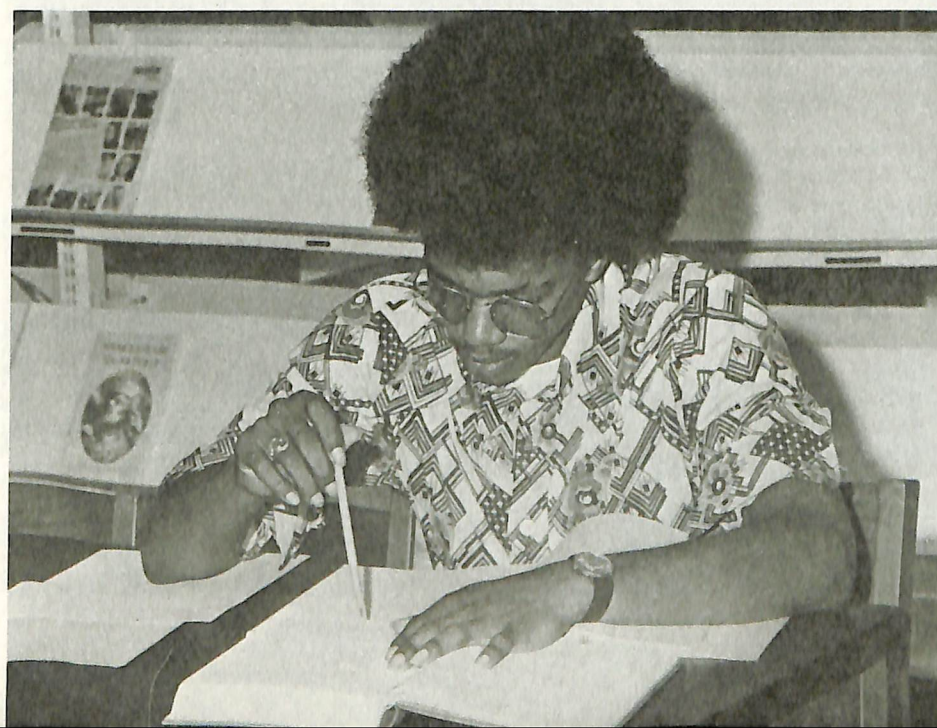
1. Out-of-state and foreign students are accepted according to a percentage. This percentage is based on the total full-time enrollment. The College is required to meet its obligations to qualified Delaware students before reaching its maximum enrollment of out-of-state and foreign students.
2. The College considers for admission foreign students whose transcripts are cleared as satisfactory by the Office of Admissions. Students desiring to enter college should forward their transcripts early in the year preceding the semester in which they desire to enter. Furthermore, foreign students are advised to be well aware of their financial obligations.

Admission: State Residency Requirements

- The residency status of all students is determined during the time of their first registration at the College.
2. Students who are minors are considered to be resident students if their parents or legal guardians have been residents of Delaware for at least one year.
 3. Adult students (at least 18 years of age) are considered to be residents of Delaware if they have been residents of the state for at least one year prior to the date of the first enrollment.
 4. A student may not change his residential status during the academic year. He may, however, apply for a change in status for subsequent years by making a written request to the Admissions Office. This application must be accompanied by documentary evidence that confirms legal residency in Delaware.

Admission: Transfer Students for Advanced Standing

1. The Admissions Office will consider applications from students seeking to transfer from other four-year colleges, universities, and junior colleges. A transfer student must complete a minimum of 30 hours of academic work at Delaware State College.
2. Transfer students who seek a degree must satisfy all entrance requirements. A statement of honorable withdrawal from his former institution must be provided for each applicant. All transfer applicants must provide complete official transcripts covering all high school and college work completed.
3. The transcripts of each individual accepted for transfer will be evaluated in relation to the requirements of the specific academic program for which the student is accepted. Courses to be transferred must be substantially equivalent to respective courses in the degree program of Delaware State College. Credit will not be granted for correspondence courses. In instances where courses from other colleges only partially fulfill general education requirements, students will be required to make up the shortage in credit hours in the same or other (elective) courses.



4. Course grades less than "C" will not be accepted as transfer credit, except for continuing one-year courses (e.g., first year English, French, Mathematics, etc.). The first semester grade may be "D", but the second semester grade must be "C" or better.
5. Students who have been placed on academic probation at other institutions and who are eligible to return to those institutions may be accepted with the same status at Delaware State College. **Students who have been dismissed, suspended, or placed on probation for disciplinary reasons are not permitted to matriculate for a degree at Delaware State College.**
6. A \$10 non-refundable transcript evaluation fee is charged to all transfer applicants. Once the applicant is enrolled, the fee is credited to his account.

Admission: Special Provisional Students

1. *Students Still in High School*—In order to qualify for early admission to college courses, high school seniors from the State of Delaware must be recommended by their high school principal, and approved by their parents and the College, and obtain a satisfactory score on the tests administered by the College. All applications should be directed to the Office of Admissions.
2. *Students Seeking Credit But Not a Degree*—Mature high school graduates who seek college credit but have no degree aspirations must, when applying to the Admissions Office, present a letter from their former high school or college academic dean certifying that they have graduated from high school or attended college as a regular enrolled student. Special students are not required to file a transcript of their high school or college work and are not permitted to take more than twelve credit hours per semester. These students must abide by all rules and regulations of the College. If such students wish to transfer to a degree program they must apply to the Office of Admissions and fulfill all requirements for admissions to the College in a degree program. A special student is a person who has not been admitted for a degree.

Admission: Reinstatement of Former Students

Students wishing to return to the College after voluntary or involuntary absence of one semester or more must make written application to the Admissions Officer not later than August 1st for the first semester of the academic year in which they plan to enroll.

Admission: Advanced Placement and Advanced Credit

1. Entering freshmen who have had the opportunity to do advanced work may receive advanced placement.
2. During the summer prior to registration or during the opening week, (Freshmen Orientation Week) freshmen take placement tests in various fields. Registration and Placement are based on the results of these tests. At the present time, however, no advanced credit is awarded to students for this work.

Admission: Summer School and Evening Program

For information concerning these programs, interested persons should refer to the special brochures released by the Office of Continuing Education.

Admissions Procedure: Bachelor of Technology Degree Program

1. An applicant may secure an application form from the Student Services Office of any campus of Delaware Technical and Community College or from the Admissions Office of Delaware State College. A statement of instructions is included with the form.
2. The applicant should complete the personal part of the form and forward it with the application fee of ten dollars to the Office of Admissions at Delaware State College, Dover, Delaware 19901. The transfer applicant should arrange to have official transcripts of all previous college work forwarded to the Office of Admissions.

Admission: Veterans in Continuing Education Programs

All eligible persons desiring to receive educational assistance through the Veterans Administration are required to apply for admission to the College as degree candidates. That is, persons who take courses at Delaware State College who have not been formally admitted to the institution are not eligible to receive financial assistance from the Veterans Administration.





FINANCIAL REGULATIONS AND STUDENT EXPENSES

GENERAL COLLEGE FEES

The charges listed below are paid to the College. They do not include such items as transportation, textbooks, personal items, social affairs, etc. Students are advised to estimate approximately \$350 to \$450 per school year as additional expense to cover such items. This estimated range, is of course, entirely dependent upon individual circumstances and the student's tastes.

| | <i>First Semester</i> | <i>Second Semester</i> | <i>Total For Year</i> |
|--|---------------------------|----------------------------|---------------------------|
| 1. Comprehensive College Fee | \$204.00 | \$204.00 | \$408.00 |
| Student Activities Fee* | 16.00 | 16.00 | 32.00 |
| TOTAL (All Full Time Students) | \$220.00 | \$220.00 | \$440.00 |
| 2. Tuition (Out-of-State Students) | \$330.00 | \$330.00 | \$660.00 |
| 3. Medical Insurance Fee** | 52.00 | -0- | 52.00 |
| 4. Room | 275.00 | 275.00 | 550.00 |
| 5. Board | 300.00 | 300.00 | 600.00 |
| 6. Special Fees | | | |
| Application Fee | | | 10.00 |
| Student Teaching Fee*** | | | 75.00 |
| Social Work Urban Affairs Internship Fee*** | | | 75.00 |
| Graduation Fee | | | 20.00 |
| Late Pre-Registration Fee | | | 15.00 |
| Late Registration Fee | | | 5.00 |
| Processing Fee For Status Changes | | | 10.00 |
| Transcript Fee | | | 1.00 |
| Transcript Evaluation Fee | | | 10.00 |
| Residence Damage Deposit | | | 20.00 |
| 7. Special Student Fees | | | |
| Registration as a part-time or special student | | | 10.00 |
| In-State (Per Credit Hour) | | | 22.00 |
| Out-of-State (Per Credit Hour) | | | 33.00 |

*The Student Activities Fee is used to support the SGA, Student Newspaper, Lyceum Program, Yearbook and Program Board Activities in accordance with priorities recommended by the Student Government Association and approved by the Dean of Student Affairs.

**Hospital & Medical Insurance is available to all full-time students at a rate of premium established by the insurance company. The rate shown is an estimate for 1977-78. Students residing in dormitories are required to participate in this program unless they are covered by Medicaid, Family Blue Cross under parents' contract, Federal Employees or Champus. To obtain this exemption, a resident student must provide satisfactory evidence of other coverage.

***Student Teaching and Social Work-Internship fees are to cover the costs of special supervision. Students participating in these programs are required to provide their own transportation. Boarding students who have no means of transportation will be assisted by the College for an additional fee of \$45 per 12 week period.

The fees in this section of the catalog are those in effect during the 1977-78 academic year and are subject to change without notice.

SPECIAL AND PART-TIME STUDENTS

Special and part-time day students are required to pay a registration fee of \$10.00 per semester. Course fees are based on the number of credit hours for the course taken at the rate of \$22.00 per credit hour for students who are residents of Delaware and \$33.00 per credit hour for students who are not residents of Delaware. Fees for special courses not a part of the regular offering may be higher depending upon circumstances.

SCHEDULE OF PAYMENTS REQUIRED

All fees, tuition and room and board charges must be paid at the time of registration. Credits for scholarships and grants-in-aid will only be considered when the scholarship or grant-in-aid has been approved by the Financial Aid Officer in advance of registration.

FIRST SEMESTER 1977-78

| | Advance Deposit | Due On or Before Registration | Total For Semester |
|-----------------------|--------------------|-------------------------------------|-----------------------|
| In-State Students | | | |
| Commuter | \$25.00 | \$195.00 | \$220.00 |
| Resident only | 25.00 | 522.00 | 547.00 |
| Boarding | 25.00 | 822.00 | 847.00 |
| Out-of-State Students | | | |
| Commuter | 50.00 | 500.00 | 550.00 |
| Resident only | 50.00 | 827.00 | \$877.00 |
| Boarding | 50.00 | 1127.00 | 1,177.00 |

SECOND SEMESTER 1977-78

| | Advance Deposit | Due On or Before Registration | Total For Semester |
|-----------------------|--------------------|-------------------------------------|-----------------------|
| IN-State Students | | | |
| Commuter | \$25.00 | \$195.00 | \$220.00 |
| Resident only | 25.00 | 470.00 | 495.00 |
| Boarding | 25.00 | 770.00 | 795.00 |
| Out-of-State Students | | | |
| Commuter | 50.00 | \$500.00 | 550.00 |
| Resident only | 50.00 | 775.00 | 825.00 |
| Boarding | 50.00 | 1,075.00 | 1,125.00 |

All Students in Residence are required to pay an additional \$30.00 room deposit fee. For purpose and special conditions, See Room Deposit Fee on page 34.

Fees shown are those in effect at the time of publication and are subject to change without notice.

LABORATORY FEES

These fees are paid for certain courses to cover the cost of supplies and special facilities. Charges per semester are as follows:

| | |
|----------------------|--------|
| Agriculture 201..... | \$8.00 |
| Agriculture 202..... | 8.00 |
| Agriculture 308..... | 8.00 |
| Agriculture 416..... | 8.00 |

| | |
|-----------------------------|-------|
| Art 201 | 8.00 |
| Art 301 | 25.00 |
| Art 302 | 20.00 |
| Art 304 | 5.00 |
| Art 306 | 10.00 |
| Art 401 | 10.00 |
| Art 403 | 5.00 |
| Art 404 | 5.00 |
| Art 406 | 10.00 |
| Art 408 | 5.00 |
| Biology | 12.50 |
| Business Machines..... | 8.00 |
| Chemistry..... | 15.00 |
| Home Economics 102..... | 8.00 |
| Home Economics 104..... | 8.00 |
| Home Economics 106..... | 8.00 |
| Home Economics 203..... | 8.00 |
| Home Economics 204..... | 8.00 |
| Home Economics 302..... | 8.00 |
| Home Economics 303..... | 8.00 |
| Home Economics 304..... | 8.00 |
| Home Economics 310..... | 8.00 |
| Home Economics 318..... | 8.00 |
| Home Economics 320..... | 8.00 |
| Home Economics 405..... | 8.00 |
| Home Economics 407..... | 8.00 |
| Home Economics 409..... | 8.00 |
| Nursing 202..... | 8.00 |
| Nursing 203..... | 8.00 |
| Nursing 301..... | 8.00 |
| Nursing 302..... | 8.00 |
| Nursing 401..... | 8.00 |
| Nursing 402..... | 8.00 |
| Nursing 403..... | 8.00 |
| Physical Education 118..... | 8.00 |
| Physical Education 112..... | 8.00 |
| Physical Science | 12.50 |
| Physics..... | 12.50 |
| Typing..... | 8.00 |

The College reserves the right to assess a special fee to cover the cost of using off-campus facilities when required in connection with any course offering. Over-night accommodations for nursing students are available at the Wilmington Campus. Rates are \$70.00 per semester for two nights per week. This applies to commuting students only.

PAYMENT OF FEES

All fees are payable either by mail or in person at the Business Office on the dates indicated. Payments should be made by cashier's check, certified check or money order. Personal checks are accepted as a convenience subject to their collection. Receipts issued are void if the check is returned unpaid regardless of reason and registration will be cancelled when checks taken in payment of the college charges are dishonored by the bank. Checks should be made payable to *Delaware State College*.

All charges must be paid at time of registration. Special credit against the

amount due at registration will be given in those cases where students are receiving Federal or State Aid in the form of scholarships, grants, or loans upon written confirmation received from the granting Federal or State Agency.

Failure to have paid in full any amount due the College prior to the end of a semester for whatever reason will cause all grades and credits to be withheld until payment is made in full. Official academic transcripts will not be issued for any student or former student who is delinquent in paying any loans or charges owed to the College.

ADVANCE DEPOSIT

An advance deposit of \$50.00 for out-of-state students and \$25.00 for Delaware residents must be paid at the time accepted by the College for admission but in any event not later than June 30 (July 15 for returning students) for the fall semester and December 15 for the spring semester. This deposit is refundable anytime *before* the due dates shown. It will be credited against fees due as shown by the *Schedule of Payments*. If the advance deposit is not paid when due by returning students who have preregistered, the student will be required to register on a first-come, first-served basis at the beginning of the semester and the availability of courses and dormitory accommodations cannot be guaranteed by the College.

CONTRACTUAL OBLIGATION OF BOARDING STUDENTS

In order to provide a boarding service for all students at the lowest possible cost, certain rules of conduct must be followed and will be strictly enforced. Those who wish to live at Delaware State College as resident students must contract with the Business Office to pay for room and board for the full semester and agree to abide by the rules of conduct as established for the dining room. All meals served in the dining room will be cafeteria style and students will be required to remove their own soiled dishes from the dining tables. Students will not be permitted to eat in the dining room without showing an identifying meal ticket issued by the Food Service Department. Students are expected to respect the rights of others at all times. Should any student be found guilty of breaking these rules, his or her privilege to room and board on campus will be terminated by the action of the Dean of Students and charges paid in advance will be refunded on a prorated daily basis. No credit is given for meals which a student fails to take while he is in a boarding status.

A boarding student who wishes to change his status to that of a commuting student may do so during the first half of the semester. Applicants for change of status will be given a pro rata credit for the remaining days in the semester from the date they leave the residence hall. Any difference between the charges and credit given must be settled immediately in cash.

ROOM DEPOSIT FEE

Persons who have applied and have been accepted by the Admissions Office will receive an application for a Residence Hall Permit. In addition to the Advance Deposit, prospective students who wish to live in a residence hall must also send a room deposit of \$30.00. Included in the room deposit fee is a key deposit of \$7.00, Residence Hall Fee of \$1.50 and \$1.50 dues for Men's Council and/or Women's Senate activities, and a Residence Hall Damage Deposit of \$20.00. The key deposit is refunded at time of checkout. Keys presented for refund later than three days following: (1) residence hall termination for any reason; or, (2) established checkout periods preceding school recesses are ineligible for refund and will not be accepted. Failure to checkout through the office will result in forfeiture of the damage deposit. Any balance of the damage deposit remaining after deducting for damages will be refunded at the end of

the school year. The room deposit should be made payable to Delaware State College in a separate check or money order properly identified as the room deposit and sent at the same time as the advance deposit for registration.

The room deposit does not guarantee the assignment of a room, but, it must accompany the application for assignment. The Room deposit is refundable to persons who decide not to enroll.

All continuing students should indicate their intention to reside on campus for the next year by obtaining an application and paying the Room Deposit Fee of \$30.00 (as specified above) at the time of preregistration or payment of Advance Deposit.

WITHDRAWAL REFUNDS

Students withdrawing from College after the beginning of classes are entitled to refunds only if the withdrawal is officially acknowledged by the Registrar within the period indicated. Refunds will be made on the following basis:

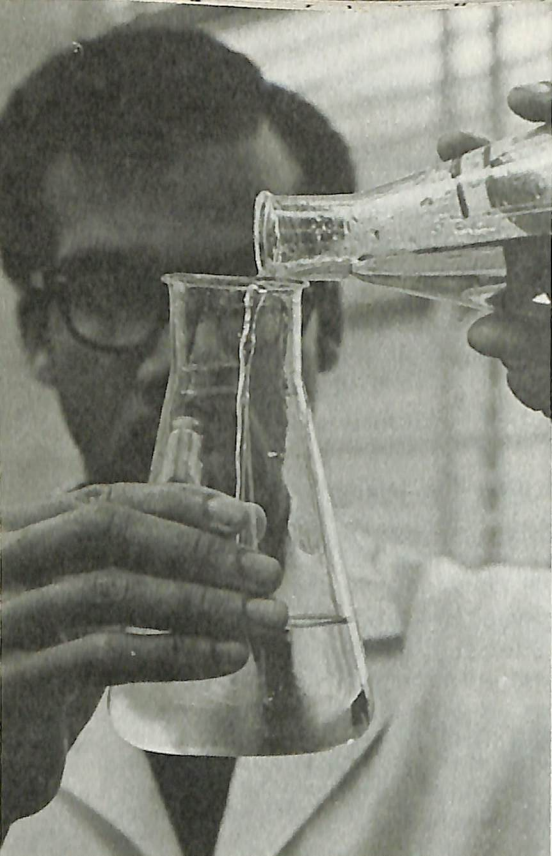
WITHIN TEN DAYS—The Comprehensive College Fee less a registration charge of \$25 plus the Medical Insurance Fee, the Student Activities Fee and Tuition (if any) will be refunded. Boarding charges are refunded on a pro-rated daily basis.

FROM ELEVEN TO THIRTY DAYS INCLUSIVE—Two-thirds of the Comprehensive College Fee after deducting a registration charge of \$25, plus two-thirds of the Student Activities Fee and two-thirds of any tuition paid will be refunded. Boarding charges are refunded on a pro-rated basis. All other fees and charges are non-refundable.

TEXTBOOKS

Textbooks are sold in the College Bookstore. All sales are for cash. Checks are accepted only for the exact amount of the purchase from the maker of the check with acceptable identification. Arrangements may be made with the Business Office to charge the purchase of books only if the student has an existing credit balance on his or her account.





ACADEMIC REGULATIONS

Delaware State College is a fully-accredited, four-year, liberal arts institution that grants the Bachelor of Arts (B.A.) degree, the Bachelor of Science (B.S.) degree and the Bachelor of Technology (B.Tech.) degree. The requirements for the three degrees insure that each student develops skills in the broad fields of human knowledge and in a major field. The General Education Program has been planned to provide the student with a sound foundation in the liberal arts and sciences.

There is a wide selection of major fields and a variety of courses in other disciplines offered at the College. The College provides major study in the areas listed below:

Agriculture and Natural Resources

- Agricultural Education*
- General Agriculture
- Plant Sciences
- Park Administration and Natural Resources
- Wildlife Management
- Fisheries Management
- Soil and Water Management
- Vegetation Management
- Environmental Health

Art Education*

Biology

- General Biology*
- Biology with emphasis in Botany

Chemistry*

- Chemical Engineering

Education

- Early Childhood Education*
- Elementary Education*
- Occupational Teacher Education

Engineering

- Chemical Engineering
- Chemistry/Chemical Engineering
- Civil Engineering
- Physics/Civil Engineering
- Electrical Engineering
- Physics/Electrical Engineering
- Mechanical-Aerospace Engineering
- Mathematics/Mechanical Engineering
- Physics/Mechanical-Aerospace Engineering

English*

Foreign Languages

- French*
- Spanish*

Economics and Business Administration

Accounting
Economics
General Business Administration
Certificate I Curriculum in Business Education*
Certificate II Curriculum in Business Education*
Certificate III Curriculum in Business Education*
Secretarial Science
Distributive Education*

Health, Physical Education and Recreation

Health and Physical Education*
Health Education*
Recreation

History***Home Economics**

Home Economics Education*
Child Development and Family Relations
Foods and Nutrition
General Home Economics
Clothing, Textiles, and Related Arts

Mathematics*

Mathematics/Mechanical Engineering**

Music Education***Nursing****Physics***

Civil Engineering**
Electrical Engineering**
Mechanical Engineering**

Psychology**Sociology, Urban Affairs and Social Work****Technology (Bachelor of)**

Agri-Business Technology
Natural Resources Technology
All Business and Secretarial Technologies (Except Data Processing Option)
All Data Processing
Food Service Management Technology
All Engineering Technologies (Except Chemical Laboratory Technology and Environmental Technology)
Chemical Laboratory Technology and Environmental Technology
Criminal Justice Technology
Dental Assisting Technology
Fire Protection
Human Services Technology
Journalism
Library Technology
Medical Laboratory Technology
Science Education Technology

To obtain information concerning the Delaware Technical and Community College campuses that offer the above curricula, interested students should contact their local Delaware Technical and Community College Admission Office.

* Teaching Major Available

** Engineering Program

Students interested in pre-medicine should major in one of the Natural Sciences.

NOTE: For each curriculum option, departmental advisors will furnish a detailed four year curriculum guide.

REGISTRATION

Students failing to register prior to the date that classes begin are charged a late registration fee of five dollars. Continuing students must pre-register on the prescribed dates of each semester or pay an assessed fee of \$15.00.

Students who register for courses with Incomplete ("I") grades for previous courses taken are cautioned that they do so at their own risk. Upon the assignment of final grades for such courses proper adjustments are made in accordance with regulations regarding course load and probation.

Students cannot receive credit for a course in which they are not officially registered.

CHANGE IN STATUS

Students having a change in major, change in name because of marriage, change in address or telephone number, must fill out the proper form procured in the Records Office.

CREDIT HOURS

Academic work in the College courses is measured in semester hours of credit. A semester hour is equal to fifty minutes of recitation or lecture work per week for one semester. A minimum of two hours of laboratory work yields one semester hour.

Credit will not be granted for correspondence courses. In addition, credit will not be granted for the same course twice.

CLASSIFICATION OF STUDENTS

| | |
|--------------------|-----------|
| 0-29 Hours | Freshman |
| 30-59 Hours | Sophomore |
| 60-89 Hours | Junior |
| 90 Hours and Above | Senior |

GRADING SYSTEM

A grade is reported to each student for each course in which he is enrolled. That grade is an indication of the quality of the student's performance in the course.

Mid-Semester grades will not be issued. Instead, instructors will deliver to the Records Office the names of students who are performing at the "D" or "F" level at the end of the fifth week of the semester.

Students will be notified immediately by the instructors of their conditional grade standing.

Final grades become a part of the student's permanent record and are also used in computing his grade point average. Students who earn poor grades in certain courses can retake them. If a higher grade is achieved, the higher grade will replace the lower as the grade of record for the course. The grade point average (GPA) is computed by dividing the total number of quality points received by the total number of hours attempted.

Grade Changes are to be approved by the Department Chairman and forwarded to the Records Office. No grades will be changed after the first three (3) weeks of the beginning of instruction of the semester after the grade was issued.

The Grading System used at Delaware State College is shown below:

| GRADE | EXPLANATION | QUALITY POINTS |
|-------|-----------------------------|--------------------------------------|
| A | Excellent | 4 |
| B | Good | 3 |
| C | Fair | 2 |
| D | Poor | 1 |
| F | Failure | 0 |
| I | Incomplete | Not Computed for Grade Point Average |
| W | Withdrew | Not Computed for Grade Point Average |
| Audit | Course Not Taken for Credit | Not Computed for Grade Point Average |
| S | Satisfactory | Not Computed for Grade Point Average |
| U | Unsatisfactory | Not Computed for Grade Point Average |
| P | Satisfactory | Not Computed for Grade Point Average |
| F | Unsatisfactory | Not Computed for Grade Point Average |

REMOVAL OF INCOMPLETES

Incomplete course work due to reasons clearly beyond the control of the student will yield the grade "I". This grade must be removed by the end of the first six weeks of the student's next semester in attendance, otherwise the grade "I" becomes an "F".

CLASS ATTENDANCE

No student may attend class unless he is officially registered.

All students are expected to attend punctually every scheduled meeting of each class in which they are registered except when serious illness or some other emergency prevents them. Absence from class for any reason does not excuse the student from responsibility for any work performed or assigned. No student's grade may be reduced solely because of absences as the grade assessed in any course must reflect the student's academic performance.



ACADEMIC LOAD

The normal minimum load of a full-time matriculated student is twelve credit hours and the maximum is eighteen except where the curriculum of a department specifically calls for more than eighteen hours. Students wishing to take more than eighteen hours must get approval from the chairman of their major department.

AUDITING

Persons who wish to attend a course without receiving credit for it may audit the course with the consent of the instructor and the academic dean. As auditors, they are entitled to the advisory services of the instructor. Persons with a full-time load pay no additional fees for auditing. Persons carrying less than a twelve (12) credit-hour load are charged as explained in the Financial Regulations printed elsewhere in this catalog.

MAJOR ADVISORS

A student may be assigned to a faculty advisor in his major department. The advisor will meet with him each semester prior to registration and must officially approve his program before he can complete registration.

STATEMENT OF SATISFACTORY PROGRESS

In addition to other academic regulations stated elsewhere in this section, each full-time student is expected to successfully complete at least nine credits during each semester with a minimum grade point average of 1.70. Students who (at least) satisfy these two conditions have met the minimum standards for satisfactory academic progress.

PROBATION, RETENTION, AND REINSTATEMENT

A student whose grade point average is below 1.70 during any one semester of work shall be automatically placed on academic probation for the succeeding semester with a reduced load of not more than twelve semester hours. A student on academic probation the second semester, who attends summer school, will have his summer school grades computed along with the grades he receives the second semester. If this average is 1.70 or above, the student will not be placed on academic probation.

In order to be removed from academic probation, a student must earn a grade point average of 2.00 or better the next semester in residence. A student who is on academic probation the first semester and does not earn the necessary 2.00 by the end of the second semester, may attend summer school to attempt to bring his average up to the required 2.00 in order to continue his studies at the College. If a student on probation fails to attain this average, he shall be suspended for the following semester. At the expiration of this period, he may apply for readmission on probation. The student must earn a grade point average of 2.00 (C) during the semester of his re-instatement. If he fails to do this, he may be re-instated if he successfully completes 24 hours with a grade average of "C" or better at another accredited institution or 12 hours with an average of 2.00 (C) in the evening or summer school at the College. A student who has not earned a minimum cumulative average of 1.70 by the end of the sophomore year will be permanently dismissed from the College.

ACADEMIC HONORS

DEAN'S LIST—The Dean's list includes those students who earned a scholastic average of 3.25 or above and who carried fourteen or more semester hours during the preceding semester.

GRADUATION WITH HONORS—Honors are awarded at graduation under the following conditions:

- WITH HIGHEST HONOR for a scholastic average of 3.75, or above.
- WITH HIGH HONOR for a scholastic average of 3.50 to 3.74.
- WITH HONOR for a scholastic average of 3.25 to 3.49.

No honor is awarded unless the candidate has attended the College for at least three years (90 semester hours).

HONORS FOR TRANSFER STUDENTS—Transfer students, being considered for academic honors, have a second index computed that is based on all work taken at the College and elsewhere (including failures and grades of first passing level that are not transferable). The lower of these two indexes is considered the official scholastic index for purposes of academic honors and election to honor societies.

Honorable mention is awarded transfer students if they completed the last two years of academic work toward graduation (60 semester hours) at Delaware State College with a scholastic average of 3.50.

FINAL EXAMINATIONS

Final examinations shall be required of all students in all courses.

TRANSCRIPT OF RECORDS

The first transcript of a student's academic work is issued without charge. For each additional transcript, a fee of one dollar (\$1.00) is charged.

WITHDRAWAL FROM COURSES OR FROM THE COLLEGE

Students who wish to withdraw from a course must obtain the appropriate withdrawal forms from their Department Chairman.

Students who wish to withdraw from the College must obtain the appropriate withdrawal forms in the Counseling Office.

A student who withdraws officially from a course or from the College will be reported to the Office of Records as "Withdrew".

If for any reason a student unofficially withdraws from a course/s or from the College, the letter grade assigned will be "F" for those courses involved.

SPECIFIC DEGREE REQUIREMENTS

COURSE AND CREDITS—The minimum number of semester hours required for graduation is one hundred and twenty-one (121). This number varies with many of the major programs. The candidate must satisfactorily complete the requirements of his major study area in which he is enrolled to be eligible for graduation.

Of the minimum total of 121 semester hours, forty-one (41) hours of general education courses must be completed by the candidate. General education requirements are distributed as follows: ten (10) hours of basic intellectual skills, twelve (12) hours of humanities, six (6) hours of mathematics, six (6) hours of natural science and eight (8) hours of social science. (For further details see General Education Requirements located elsewhere in this catalog.)

GRADES AND GRADE POINT AVERAGE—The following grades and grade point average must be earned by the candidate:

1. A minimum overall grade point average of 2.00 (C).
2. A grade of "C" in each course in his field of specialization.
3. A minimum of 2.00 (C) grade point average for the last thirty (30) semester hours of work at this College. Except in computing honors, transfer grades are not included in computing a student's average at Delaware State College.



STUDENT TEACHING—A student may not do student teaching unless he has fulfilled all student teaching requirements as required by the College.

Students transferring from other institutions with the intent to register at Delaware State College for student teaching must have a formal agreement initiated between Delaware State College and their respective institutions.

All candidates are assigned to student teaching on a full-time basis for one semester. In most cases students will live on campus or at home during their student teaching period. However, in some instances it may be necessary for students to maintain living quarters in the community in which they are assigned to student teach.

During the time of student teaching, students are actually engaged in teaching assigned classes and are under the supervision of the Delaware State College Education Department and a cooperating teacher in the school in which they teach. In addition, the respective departments may assign supervisors or coordinators.

WRITING PROFICIENCY EXAMINATION—All students who do not make a minimum grade of "C" in English 101 or 102 or English 103 or 104 will be required to take and pass a writing proficiency examination as a part of their graduation requirements. Students will become eligible to take this test at the end of the sophomore year. The test will be administered by the English Department.

FOREIGN LANGUAGE—Unless 12 semester hours of foreign language are required within a specific curriculum, a student may elect to take 6 hours of a foreign language toward the 12 hours of Humanities to satisfy the General Education Requirement.

Students presenting 3 or more high school units of work in a single foreign language may be exempted from the First and Second years of language courses on the basis of satisfactory performance in the Modern Language Association Cooperative Language Test — Level I and Level II. However, this exemption does not replace the total credit hours needed to satisfy the foreign language or humanities requirement.

PHYSICAL EDUCATION—Two (2) semester hours in physical education must be earned by the candidate. Students who are certified by their physician as being unable to participate in the regular physical education program must enroll in modified physical education classes.

Normally, students must complete P.E. 100 before electing an additional semester hour from the other 100 level courses. Students twenty-seven (27) years of age and over are exempted from the P.E. 100 requirement. These students must elect two (2) hours from the 100 level courses to complete their requirement. Veterans are not required to enroll in P.E. 100.

ELECTIVES—A student may select at least the minimum designated number of electives in accordance with his interests and major departmental requirements. He should do this in consultation with his faculty advisor.

APPLICATION FOR GRADUATION—Students who intend to graduate should complete an application for graduation in the Office of Records by October 15 of the year preceding graduation.

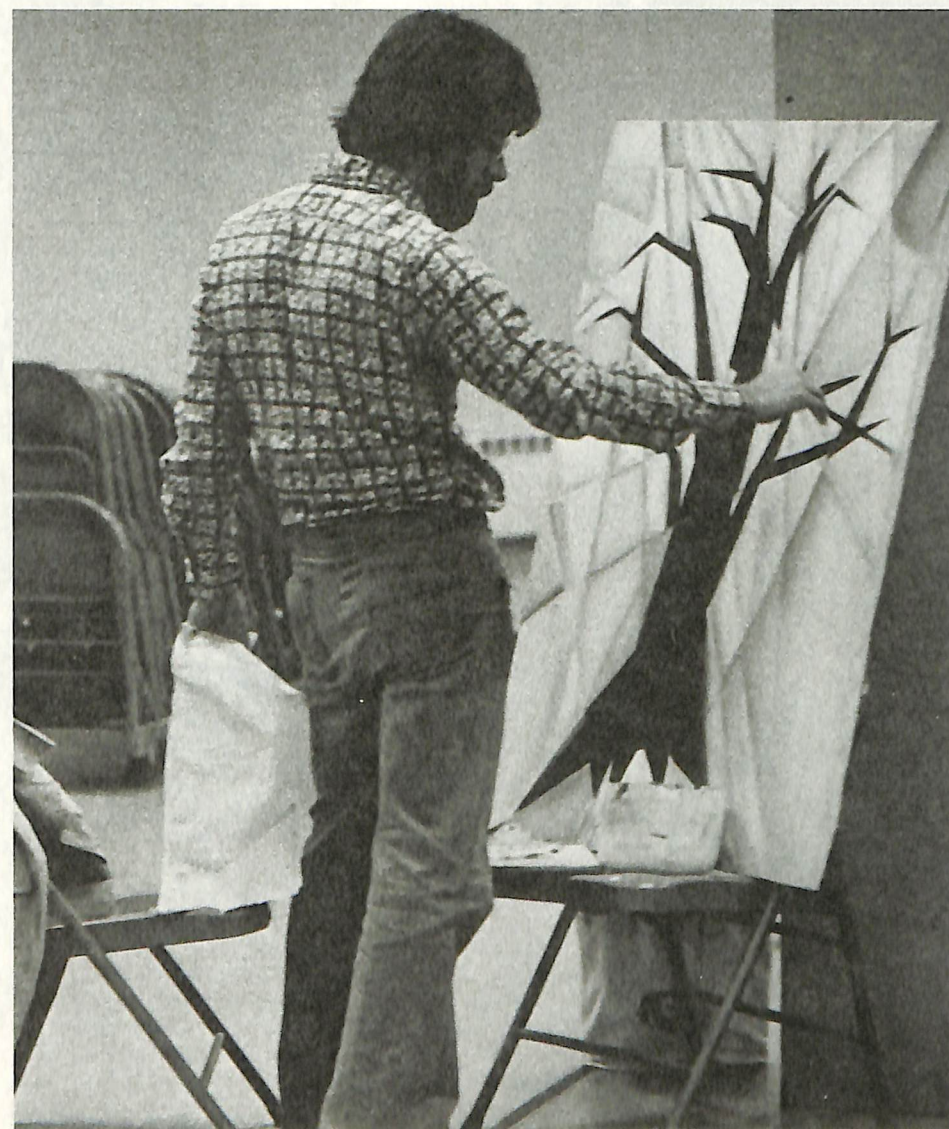
NOTE: Students who have met the requirements are eligible for graduation at the close of any semester. Degrees, however, are conferred only at the end of the second semester.

RESIDENCY—Students who transfer from other institutions must earn a minimum of 30 semester hours at Delaware State College.

Waiver of Student Teaching Requirements—A person requesting to have student teaching waived must meet the following requirements:

1. The teaching experience must have occurred within the last six 6 years.
2. The teaching experience to be substituted for student teaching must have been gained in a public or recognized private or parochial school on the elementary or secondary level.
3. A senior seeking a waiver of student teaching, must have had not less than three 3 years of successful teaching experience in the area of specialization in which certification is requested. This experience should have been gained over three 3 nine months contracts of service within the last six 6 years. Substitute teaching will not be accepted.
4. That all teaching experience to be considered must be documented by former principals and/or supervisors acquainted with the quality of teaching done by the student while there. Forms will be supplied for this purpose along with supporting letters received from school personnel involved will become a part of the student's file. All of the information received from the school will be evaluated by the departments concerned and the Director of Student Teaching. The experience documented must meet the standards maintained for all student teachers at Delaware State College.
5. Each person requesting a waiver of student teaching must take six 6 additional semester hours of professional courses. These six 6 hours are in addition to regular course requirements.

6. An eligible person wishing to take advantage of this new policy must sign a waiver form before or by the beginning of his senior year in college and be prepared to furnish all the necessary supporting documents as may be required by Delaware State College personnel to properly evaluate the student's request.
7. Where possible, an on-site visitation will be made by Delaware State College officials to the school where the student is employed to evaluate the student's performance in an actual classroom situation.
8. The student meeting all of the requirements in this proposal will receive an institutional recommendation from Delaware State College.
9. All persons eligible for a waiver, will be exempted from taking Education 411, Student Teaching Seminar.



A course in Medicinal and Edible Wild Plants



GENERAL EDUCATION REQUIREMENTS

All students pursuing a course of study leading to the bachelor's degree are required to earn a minimum of forty-one (41) semester hours of general education, distributed as delineated below:

All freshmen are expected to complete the general education courses listed below in accordance with the advice of their departmental advisors.

| | Hours | |
|---|--|---|
| BASIC SKILLS | 10 | |
| Required of all: | | |
| Eng. 101 | English Composition or | |
| Eng. 103 | Black Rhetoric | 3 |
| Eng. 102 | Basic Study in Literature or | |
| Eng. 104 | Black Prose and Poetry | 3 |
| Eng. 200 | Speech | 2 |
| P.Ed. 100 | Physical Education Orientation | 1 |
| P.Ed | A Physical Education Course on the 100 level | 1 |
| HUMANITIES | 12 | |
| Required of all: | | |
| Eng. 201-202 | World Literature or | |
| Eng. 205-206 | Afro-American Literature I and II | 6 |
| Six additional hours to be selected from: | | |
| Art 101 | Art Appreciation | 3 |
| Art 311 | Art History I | 3 |
| Art 312 | Art History II | 3 |
| Art 313 | Art History III | 3 |
| Fr. 101-102 | Elementary French | 6 |
| Fr. 201-202 | Intermediate French | 6 |
| Ger. 101-102 | Elementary German | 6 |
| Ger. 201-202 | Intermediate German | 6 |
| *Hons. 511 | Freshman Colloquium | 2 |
| *Hons. 512 | Freshman Colloquium | 2 |
| *Hons. 521 | Sophomore Colloquium | 2 |
| *Hons. 522 | Sophomore Colloquium | 2 |
| Mus. 100 | Afro-American Music | 2 |
| Mus. 101 | Introduction To Music | 3 |
| | Any Two Philosophy Courses | 6 |
| Span. 101-102 | Elementary Spanish | 6 |
| Span. 201-202 | Intermediate Spanish | 6 |

MATHEMATICS Required of all: Six hours. **6**

A minimum of six hours to be selected from course offerings in mathematics excluding mathematics 105-106. Only a student who is majoring in elementary education may take mathematics 105-106 to satisfy the mathematics requirements. A student who selects Business Education as a major may take Business 211 to satisfy three hours of the mathematics requirements.

* Courses also satisfy the social science requirements in General Education.

NATURAL SCIENCES

6

Required of all: A minimum of six hours selected from:

| | | |
|-----------|--|-----|
| Biol. 100 | Introduction to Biology and one of the following: | 3 |
| | An agriculture course with lecture and laboratory | 3 |
| | **A biology course above the 100 level with a laboratory | 3-4 |

A natural resources course with lecture and laboratory

| | | |
|---------------|---|---|
| Sci. 201 | Physical Science Survey | 4 |
| | or | |
| Biol. 101-102 | General Biology | 8 |
| Chem. 101-102 | General and Elementary Analytical Chemistry | 8 |
| Astr. 101-102 | Descriptive Astronomy | 6 |

| | | |
|---------------|---------------------------------------|---|
| Phys. 101-102 | and 101L-102L Introduction to Physics | 8 |
| Phys. 121-122 | Concepts of Physics | 6 |
| Phys. 123 | Concepts of Modern Physics | 3 |
| Physics 131 | Energy | 3 |
| Phys. 201-202 | and 201L-202L General Physics | 8 |

SOCIAL SCIENCES

8

Required of all:

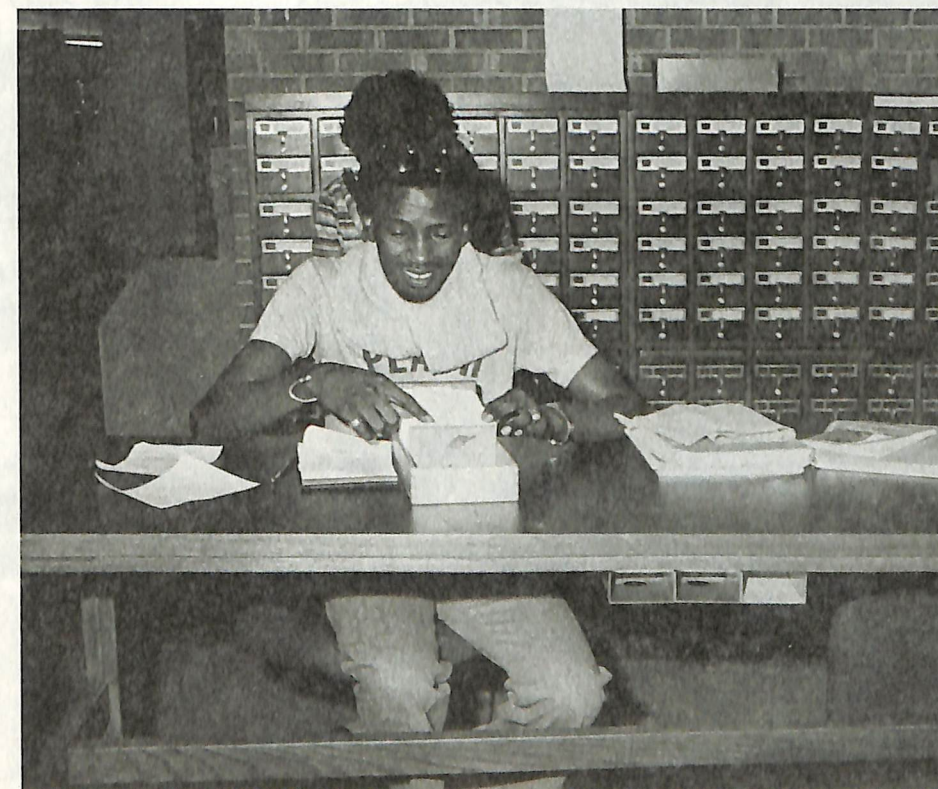
| | | |
|-----------|----------------------|---|
| Educ. 101 | Freshman Orientation | 1 |
|-----------|----------------------|---|

Six hours to be selected from the following,
three hours of which must be in history:

| | | |
|--------------|---|---|
| Econ. 201 | Principles of Economics | 3 |
| Hist. 101 | World Civilization To Eighteenth Century | 3 |
| Hist. 102 | World Civilization Since Eighteenth Century | 3 |
| Hist. 107 | Afro-American Experience | 3 |
| Hist. 108 | Recent Black Experience | 3 |
| Hist. 201 | American Civilization to 1865 | 3 |
| Hist. 202 | American Civilization Since 1865 | 3 |
| P.Sci. 103 | Introduction to Government | 3 |
| ***Hons. 531 | Junior Colloquium | 2 |
| ***Hons. 532 | Junior Colloquium | 2 |
| ***Hons. 541 | Senior Colloquium | 2 |
| ***Hons. 542 | Senior Colloquium | 2 |
| Psy. 201 | Introduction to General Psychology | 3 |
| Soc. 201 | Introduction to Sociology | 3 |
| Soc. 205 | Anthropology | 3 |
| Soc. 201 | Cultural Anthropology | 3 |

**Students who wish to select a biology course above the 100 level to fulfill the natural science requirement must have a grade of "C" or above in Biology 100 and obtain the consent of the instructor of the course.

***Courses also satisfy the Humanities requirements in General Education.





SPECIAL PROGRAMS

A growing institution of higher learning, Delaware State College is vitally concerned about its relationship with the City of Dover and the State of Delaware. Accordingly, the College generally opens its facilities to the community, and it is becoming a focal point for cultural, educational, and social affairs in the Dover area. In addition, it participates in several programs with objectives that aim for the continued development and improvement of the social and natural environment of the surrounding community.

MAINTENANCE TRAINING PROGRAM—The College Maintenance Department directs formal classes in the maintenance of buildings and grounds. These classes are open to interested persons from the Dover community and surrounding areas and are designed to provide basic job training for persons seeking employment as institutional maintenance workers.

UNIVERSITY CITY SCIENCE CENTER—Delaware State College is currently affiliated with the University City Science Center of Philadelphia, Pennsylvania. The Science Center is a non-profit corporation owned by several Delaware Valley universities, colleges, medical schools, and hospitals. Its purpose is to increase the capacity of the participating institutions to carry out research and development projects that seek to solve problems of industry, government, and academic institutions with the aid of the latest scientific knowledge, equipment, and techniques.

As a participating institution, Delaware State College is acquiring access to the facilities at the Center through instantaneous communication devices located on campus. At present, the University City Science Center has completed or is in the process of completing several million dollars worth of research contracts with industrial organizations, governmental agencies, and academic institutions.

LEARNING SKILLS CENTER—The College has professionally trained faculty and staff members who are available to assist students in developing and improving their skills in reading, writing, speech and mathematics.

While the Learning Skills Center is designed to meet the needs of incoming freshmen, its services are available to all students. Any student who wants to use the services of the Learning Skills Center is free to do so on a voluntary basis.

CHILD DEVELOPMENT LABORATORY—The Department of Education operates a nursery and kindergarten for three, four, and five-year old children. The laboratory school is fully staffed by personnel qualified to give the children a fulfilling learning experience. The school is used as a laboratory in conjunction with the major in early childhood education and home economics. The well-equipped facility has an observation room for use by students of the College and parents of the children.

MILITARY SCIENCE PROGRAM—The College provides a limited voluntary, two-semester program in military science for those students desiring some military experience at the college level. Participation in this program does not obligate

students to military service of any nature. Military Science and Tactics is an orientation program covering the activities of the Armed Forces, primarily the Army. Areas that are considered in the program include organization, supply procedures, leadership, guided missile studies, and military justice. Guest speakers from the Navy, Air Force, and Marines are presented in addition to Army personnel during the second semester.

CONTINUING EDUCATION PROGRAM—The evening component of the Continuing Education Program is designed to meet the needs of persons who wish to further their education, but because of work or certain other special problems cannot enroll for a full load of day courses. Teachers in service may take advantage of this program to meet city and state certification requirements, or to improve their educational background. Others may use the evening program for the purpose of broadening and enriching their cultural or intellectual interests. Classes are planned to meet the educational needs of mature adults. A separate bulletin on evening programs is issued by the College and can be obtained by writing to the Director of Continuing Education. Students with degree aspirations must matriculate into a regular degree program through the Admissions Office.

A summer session is offered for students who wish to take additional courses or to make up unsatisfactory grades. The regular summer session is six weeks long. However, a variety of special offerings are scheduled for the weeks between May and August. Course offerings are announced in the Spring. The normal load is six to nine semester hours. The students who were enrolled at DSC during the second semester and attend summer school at Delaware State College or any other accredited college (with proper approval) will have their summer school grades computed along with their second semester grades to determine their grade point average. Students currently enrolled at other colleges who wish to attend the Summer Session at Delaware State must present written approval from the Dean or Registrar of their home campus. Further information may be obtained by writing to the Center for Continuing Education, Delaware State College, Dover, Delaware. 19901.

SUMMER SCIENCE INSTITUTE—A summer Science Institute for Delaware High School students is sponsored by Delaware State College in cooperation with the State Department of Public Instruction and scientific industries of Delaware. The primary objective of the Institute is to strengthen the mathematical and scientific background of science-oriented high school students who plan to pursue a higher education. The Institute is conducted by faculty members of the Biology, Chemistry, Mathematics, Physics and Astronomy Departments. Participants in the Institute have an opportunity to use the facilities, instruments, and equipment in these departments and to participate in all areas of campus life. Inquiries should be directed to: Director, Summer Science Institute, Delaware State College, Dover, Delaware 19901.

SUMMER ENGINEERING INSTITUTE—A summer Institute for potential engineers and science oriented high school students is organized to identify, encourage and educate students so that they may enter the engineering profession. The program is designed to strengthen the mathematical and scientific background of the students and to develop skill and competence in writing and communication, which are the essential elements for the success of an engineer. Seminars are held in which qualified engineers and other professional personnel participate. The prime objectives of these seminars are to broaden the horizon of the students and to give them a good understanding of the impact of

engineering on society. Field trips and visits to different industrial plants and other places are arranged to give the participants a chance to visualize the myriad of activities in which a professional engineer is involved. All areas of campus life are made available to the participants in the Institute. Inquiries should be directed to Director: Summer Engineering Institute, Delaware State College, Dover, Delaware 19901.

ENVIRONMENTAL EDUCATION—College students, in-service teachers, and others interested in environmental education have the opportunity to develop and test curriculum materials on a continuing basis. Using the State Plan for Environmental Education as a basis for organization, the workshop is preparing materials which fit into the conceptual scheme developed by the Population-Environment Curriculum Project in the College of Education at the University of Delaware. Activities are coordinated through the office of the Supervisor of Science and Environmental Education, State Department of Public Instruction.

Opportunities to enroll for credit are provided by three multidisciplinary courses (see catalogue descriptions):

1. Environmental Education Workshop
2. Population-Environment Curriculum, K-12
3. Man and His Planet (Lecture-Seminar Series)

HONORS PROGRAM

Director: Eric Frankl

The Honors Program is conducted under the supervision of the Honors Council and the Director of the Program. The purposes of the program are to realize the potential of the students, liberate them from requirements which limit their best development, and stimulate them to creative and critical thinking.

The program combines three elements; colloquia, seminars, and field trips.

HONORS COURSES

511-512. FRESHMAN COLLOQUIA. Interdisciplinary study and discussion based upon required reading in primary sources. Specific content determined periodically by the Honors Council. Each colloquium has one two-hour meeting per week for a semester. Credit, two hours each semester.

521-522. SOPHOMORE COLLOQUIA. See Honors 511-512.

531-532. JUNIOR COLLOQUIA. See Honors 511-512.

541-542. SENIOR COLLOQUIA. See Honors 511-512.

Colloquia offered recently include: The New Equality: How Much and for Whom; Life Crises: Birth and Adolescence, Old Age and Death; Ascent of Man; Man, Art and Machine: Interrelationships; Impact of Computers on Human Society; Futuristics; and History of Jazz. Credit, four hours.

551-559. HONORS SEMINAR. In-depth study in selected topics offered within individual departments for honor students who are not majors in the particular field. Prerequisite: Sophomore standing and above or written permission of advisor. Credit, three hours each.

BLACK STUDIES PROGRAM

Director: Gemuh E. Akuchu

A primary purpose of the Black Studies Program is to broaden the educational experience of the student at Delaware State College. DSC recognizes that the student gains in developing a clear sense of identity by learning about the heritage and contributions of black people and by achieving a realistic understanding of present social problems.

Further, the program seeks to develop an awareness of the need for commitment to serve the black community by those who can intelligently interpret the black experience. There is a need, too, for all students, regardless of race, to deal effectively with the causes and solutions of racial conflict and move toward the elimination of racism through positive thought and action.

Thus, the Black Studies Program is directed toward accomplishing the following specific aims:

1. to increase the relevancy of college education including the realities of life for black students;
2. to enrich the experiences of non-blacks by clarifying—through teaching, research, and community involvement—the interdependence of all people;
3. to develop an awareness of the status of black people and of their contributions to America and other countries;
4. to place the histories of black people in proper perspective vis-a-vis the histories of other peoples;
5. to reorient and develop the black student's mind to enable his ideas and actions to be positive and functional for the black community.

BLACK STUDIES MINOR For a minor in Black Studies, seventeen (17) hours are required as follows: History 315 or 316 (African history); History 107 or 108 (Afro-American history); English 205 or 206 (Afro-American Literature); and Music 100 (Afro-American Music). The remaining six (6) hours must be selected from the courses listed under Black Studies Program in the catalog.

Departmental, interdepartmental and innovative special activities make up the Black Studies Program. Courses currently offered in the program are part of the participating academic departments.

ENGLISH

103. **Black Rhetoric.** Credit, three hours.
104. **Black Prose and Poetry.** Credit, three hours.
205. **Afro-American Literature I.** Credit, three hours.
206. **Afro-American Literature II.** Credit, three hours.
214. **The Black American Novel.** Credit, three hours.
217. **Black Drama.** Credit, three hours.
316. **American Literature of Afro-American Life.** Credit, three hours.
321. **Seminar in Hughes, Wright and Baldwin.** Credit, three hours.

HISTORY

107. **Afro-American Experience To 1860.** Credit, three hours.
108. **Recent Black Experience.** Credit, three hours.
315. **African Survey To 1884.** Credit, three hours.
316. **African Survey Since 1884.** Credit, three hours.
318. **Seminar in Black Studies.** Topic varies. Credit, three hours.
344. **Independent Study.** Credit, three hours.
403. **Civil War and Emergence of Modern America.** Credit, three hours.

MUSIC

100. **Afro-American Music.** Credit, two hours.

POLITICAL SCIENCE

328. **Black Politics in America.** Credit, three hours.

PSYCHOLOGY

206. **Applied Psychology.** Credit, three hours.
308. **Personality.** Credit, three hours.
430. **Independent Reading and Conference.** Credit, two hours.

SOCIOLOGY

250. **Black Power in the 60's.** Credit, three hours.
304. **Racial and Ethnic Stratification.** Credit, three hours.
399. **Independent Study.** Credit, one, two or three hours.

PROGRAM IN ENVIRONMENTAL STUDIES

In recognition of the growing general interest in environmental topics and the newly recognized importance of environmental information to citizens in general, an Environmental Minor has been established. *The minor is available to students of any major* and consists of 15 credit hours of study as outlined below:

THREE CREDITS FROM THE FOLLOWING GROUP:

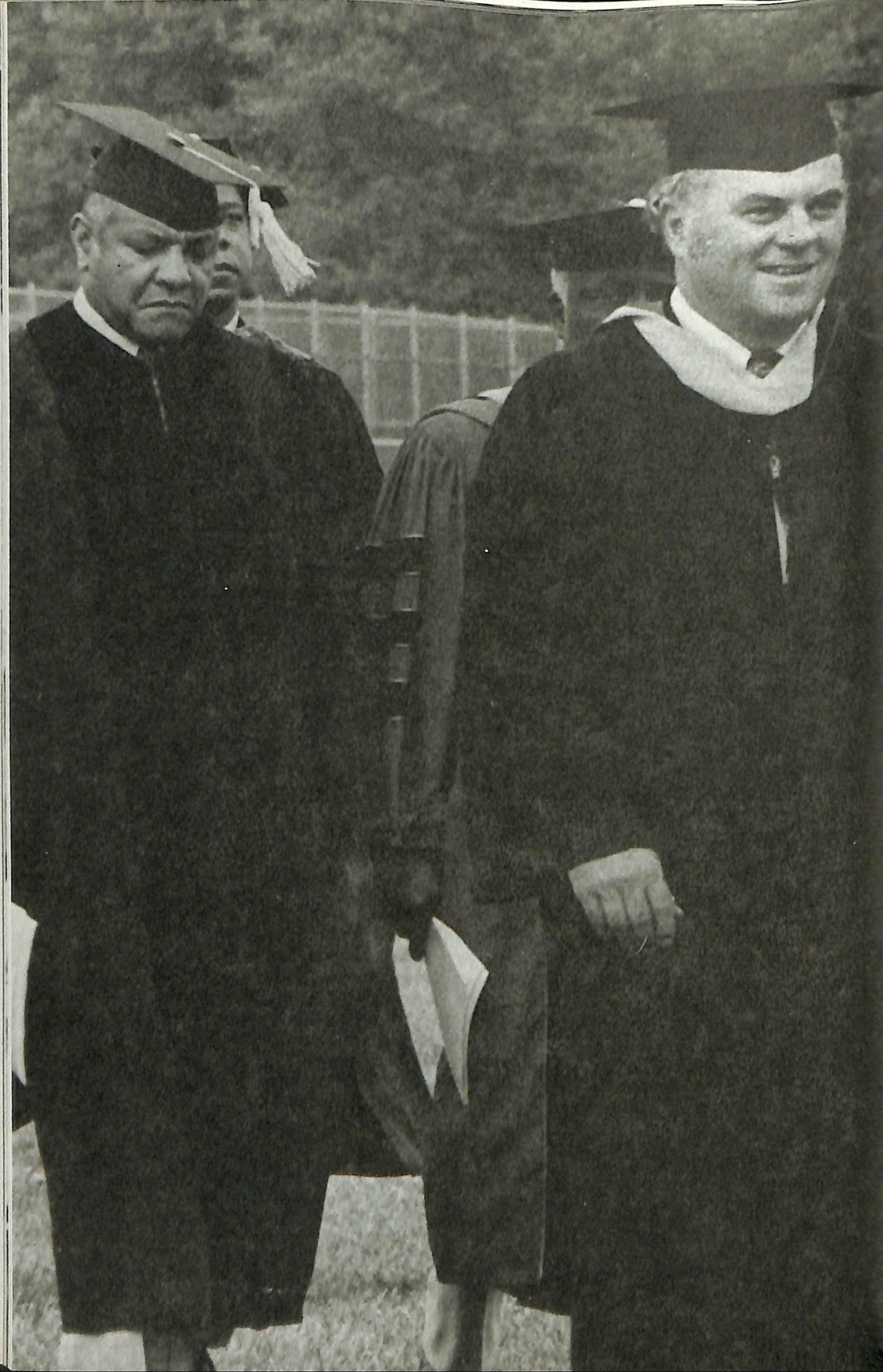
Basic Ecology (Biology 105 and Natural Resources 105)
 Ecology (Biology 205 and Natural Resources 205)
 Stream Ecology (Natural Resources 309)
 Urban Ecology (Natural Resources 106)

TWELVE CREDITS FROM THE FOLLOWING GROUP:

Soil Science (Ag. 208)
 Human Ecology (Soc. 330 and N.R. 330)
 Limnology (Biology 313 and N.R. 313)
 Water Chemistry-Basic Principles (Chemistry 203)
 Water Chemistry-Advanced Techniques (Chemistry 409-410)
 Interpreting the Natural Environment (N.R. 400)
 Human Geography (Geo. 101)
 Economic Geography (Geo. 102)
 Contemporary Economic Problems (Economics 314)
 Anthropology (Soc. 205)
 Soil and Water Management (n.R. 401)
 Vegetation Management (n.R. 402)
 Wildlife Management (N.R. 403)
 Principles of Fisheries Management (N.R. 405)
 People and the Planet (N.R. 453-454)
 Population-Environment Curriculum, K-12 (Natural Resources 455)
 Environmental Education Workshop (Natural Resources 452)

SPECIAL WORKSHOPS

The numbers 460-469 have been designated to be used by each academic department for special programs or for workshops within the department. The description of these workshops will be furnished to the Records Office and the Academic Dean's Office at the beginning of each program.



ACADEMIC DEPARTMENTS AND COURSE DESCRIPTIONS

The academic program of the College is composed of eighteen departments: Agriculture and Natural Resources, Art Education, Biology, Chemistry, Economics and Business Administration, Education, English, Foreign Languages, Health and Physical Education, History and Political Science, Home Economics, Mathematics, Music Education, Nursing, Philosophy, Physics and Astronomy, Psychology, and Sociology and Anthropology.

This section includes specific requirements for the various academic programs and descriptions of courses offered by each department at the College.

COURSE NUMBERING SYSTEM

In numbering courses in the curricula, a three-digit number is used. The first digit of a course number indicates the level of the course. Courses beginning with "1" are primarily freshman level; those beginning with "2" sophomore level; those beginning with "3" junior level; those beginning with "4" senior level. The last digit in the course number generally refers to the semester that the course is offered. If the last digit is an odd number, the course is usually offered in the first semester; if it is an even number, the course is usually offered in the second semester. Hyphenated course numbers (e.g., English 101-102) represent two semester (year) courses.

THE DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES

Professors: *Drill, *Bodola, Jones
Associate Professor: Washington (Chairman)
Assistant Professors: **Howell, Tucker
Instructors: Bell, *Ferrier

The Department of Agriculture and Natural Resources offers professional courses designed to prepare students for educational service and technical courses designed to develop production and management skills. The agriculture curriculum offers career options in Agriculture Education, General Agriculture, Plant Sciences, and Agri-Business. The natural resources curriculum offers career options in Fisheries Management, Environmental Health, General Resource Management, Park Management and Recreation, Soil and Water Management, Vegetation Management, and Wildlife Management. In addition, a student may elect options in both agriculture and natural resources which will prepare him for graduate study.

All students who select a major within the Department of Agriculture and Natural Resources must complete the general education program as required of all students (See General Education Requirements). Students planning to attend a graduate school should elect a language to meet graduate school language requirements.

*Joint Appointment
**Sick Leave

CURRICULUM OPTIONS IN AGRICULTURE

A major in agriculture requires a minimum of thirty hours of work selected from agriculture, natural resources, and biology. Students majoring in Agricultural Education must take all courses listed in the schedule of requirements, which may be obtained from the head of the department. In the Agri-Business curriculum, required business courses are part of the thirty-hour minimum requirement.

AGRICULTURE EDUCATION: In addition to general education requirements for an option in Agriculture Education, the following courses are required: Agriculture 206, 208, 219, 317, 304 or 309, 301 or 313, 210 or 310, 323 and 324; Agriculture and Natural Resources 101, 102; Natural Resources 205; Education 405, 411, 412 and 415; Psychology 201 and 204. To meet the minimum of thirty semester hours of credit of technical Agriculture one must select courses from at least three of the following areas: Agriculture Economics, Poultry Science, Animal Science, Horticulture, Agricultural Mechanics and Agronomy.

GENERAL AGRICULTURE In addition to general education requirements, for an option in General Agriculture these courses are required: Agriculture 206, 208, 219, 317, 301, 313, 304, or 309, 311 or 416; Agriculture and Natural Resources 101, 102, 321 and 350. To meet the thirty-hour minimum requirement of this major and fulfill the elective hours, these courses are suggested: Any Agriculture course; Biology 303, 306; Natural Resources 201; Sociology 305; Chemistry 301, 302; Economics 201; Geography 101.

AGRI-BUSINESS In addition to general education requirements, for an option in Agri-Business, these courses are required: Business 108, 205-206, 303, 310, 401; Agriculture 207, 208, 301, 304, 309, 313, 317, 420; Economics 201, 307, 414; and Natural Resources 205.

PLANT SCIENCE In addition to general education requirements, for an option in Plant Science these courses are required: Agriculture 206, 208, 210, 219, 308, 310, 317, 319, 419; Agriculture and Natural Resources 101, 102, 321, 350 and Biology 202. To meet the thirty-hour minimum requirement of this major and fulfill the elective hours, these courses are suggested: Any Agriculture course; Natural Resources 201, 202, 401; Biology 303, 306; Economics 201; Geography 101.

PRE-VETERINARY MEDICINE In addition to general education requirements for an option in Pre-Veterinary Medicine, the required courses are: Agriculture 206, 207, 301, 302, 313; Natural Resources 205; Biology 201, 303, 305, 307; Chemistry 301, 302; Mathematics 201, 202; Physics 201, 202; Agriculture-Natural Resources 450. To meet the minimum requirement of this option and fulfill the elective hours, these courses are suggested: Agriculture 308, 309, and 317; Natural Resources 311, 312, and 403; Economics 201; Geography 101.

COURSE DESCRIPTIONS

AGRICULTURE (29)

204. FRUIT PRODUCTION. Orchard management and fruit production. A general course covering tree and bush groups, their production and harvesting, packing, and marketing. Planning the young orchard, selecting varieties, putting out trees, developing the necessary skills for good orchard management. Two lectures and one laboratory period per week. Credit, three hours.

206. INTRODUCTION TO ANIMAL SCIENCE. A study of the market classes and grades of livestock and their production on the farm. A study of breed characteristics as they relate to market production with the chief objectives of the course centering on economy and production efficiency as they relate to selection, feeding, care, management, disease control, and marketing. One lecture and two laboratory periods per week. Credit, three hours.

207. FEED AND CARE OF FARM LIVESTOCK. Farm animal feeds, their source, composition, characteristics, and feeding value. Recommended care and feeding practice for dairy and beef cattle, swine, sheep, and workstock. The course also explores the balancing of rations. Two lectures and one laboratory period per week. Prerequisite: Agriculture 206. Credit, three hours.

208. SOIL SCIENCE. A study of soils, their physical and chemical characteristics, with special emphasis on those factors which affect plant growth. Soil formation, the use of fertilizers, and soil and water conservation are considered. Special emphasis is placed on the soils of Delaware and their management. Two lectures and one laboratory period per week. Prerequisite: College Chemistry or consent of instructor. Credit, three hours.

210. LANDSCAPING. Theory and practice of landscape design with special application to the home grounds. Practice in drawing and estimating planting plans and differential leveling will also be emphasized. Grading, propagations, plant combinations and uses in association with structures and gardens will be studied. Two lectures and one laboratory period per week. Credit, three hours.

219. GENERAL HORTICULTURE. A study of fruit, vegetable, and ornamental plants; the factors which influence their culture, value, and importance, with particular reference to the Delmarva Peninsula. Lectures and laboratory. Credit, three hours.

301. FARM POULTRY. The practical applications of poultry husbandry are stressed in this course with particular reference to farm conditions. Breeds, selection, feeding, incubation, brooding, management, and marketing poultry and poultry products are included in this course. Two lectures and one laboratory period per week. Credit, three hours.

302. FARM POULTRY. A continuation of Farm Poultry, Agriculture 301. Special problems in the poultry industry including broiler production, developing breeding and laying flocks, maintaining accredited flocks, sanitation and health problems, marketing, butchering, poultry disease, and parasites are covered in this course. Two lectures and one laboratory period per week. Prerequisite: Agriculture 301. Credit, three hours.

304. MARKETING AGRICULTURAL PRODUCTS. A study of the principles of marketing as they relate to the farmer. The organization and financial structure of farmers' cooperatives and related organizations. Market types, methods, and usage. Credit, three hours.

306. PRUNING AND SPRAYING. Pruning as a factor in orchard and fruit production. Methods and systems used. Use and care of pruning equipment. A study of spray materials and spray equipment. The control measures used for various orchard insects and diseases. One lecture and two laboratory periods per week. Credit, three hours.

308. PLANT PATHOLOGY. A study of parasitic and nonparasitic diseases. Fungal, bacteria, and virus diseases will be considered. Damage due to nutrient deficiencies, air pollutants, and other environmental causes will be studied. Economically important insects will be evaluated for plant damage. Two lectures and one laboratory period per week. Offered in alternate years. Credit, three hours.

309. FARM MANAGEMENT. The problem of organizing, coordinating, and managing farm enterprises. A study of the methods used in farm business analysis together with farm accounting and bookkeeping. Offered in alternate years. Credit, three hours.

310. VEGETABLE GARDENING. Fundamentals in the production of vegetable crops including varieties and types and preparation for market. Also insect and disease control measures. Two lectures and one laboratory period per week. Credit, three hours.

313. DAIRYING. Methods of testing and analyzing dairy products. Creamery methods and practices. The care of dairy products on the farm; their manufacture and use. Care, management and feeding of the dairy herd; care and use of the dairy equipment; meeting standards of sanitation and health. Two lectures and one laboratory period per week. Credit, three hours.

315. FARM MECHANICS. This course is planned for beginners and presents applied information in the use of tools, equipment, and materials commonly used in repair, maintenance, and upkeep about the farm, farmstead, and home. Tool recognition, repair and adjustment, together with activities in woodworking, small construction, cold metal work, painting, glazing, leather work, and pipefitting are included. Two laboratory periods per week. Credit, two hours.

316. FARM MECHANICS. A continuation of Agriculture 315 covering brick and cement work, plastering, electrical wiring, motors, forging, soldering, sheet metal work, and elementary welding and cutting. Two laboratory periods per week. Credit, two hours.

317. FUNDAMENTALS OF CROP PRODUCTION. An introduction to the fundamentals of crop science and the study of the more important field crops. Emphasis will be placed on the affects of various cultural practices on plant growth. Crop distribution, culture, and breeding will be considered. Cropping systems will be developed and analyzed. Two lectures and one laboratory period per week. Credit, three hours.

319. HORTICULTURAL PLANT MATERIALS. Ecology, taxonomy, and landscape uses of herbaceous and wood plant materials. Lectures, laboratories, and field trips. Credit, three hours.

407. METHODS OF TEACHING AGRICULTURE. This course, through numerous demonstrations, indicates how basic educational principles and techniques may be applied in the teaching of agriculture in the secondary school. The importance of demonstration as a method is given special consideration. Problems or organization, management, and evaluation in department of agriculture in secondary schools are explored. Credit, three hours.

419. PLANT PROPAGATION AND GREENHOUSE MANAGEMENT. Techniques and principles of plant propagation by seeds, grafts, buds, cuttings, layers and division. Fundamentals of greenhouse management and construction. Lectures, laboratories, and field trips. Credit, three hours.

420. FOOD DISTRIBUTION MANAGEMENT. A study of the application of administrative management principles relative to firms engaged in food distribution with emphasis on food retailing organizations. Credit, three hours.

CURRICULUM OPTIONS IN NATURAL RESOURCES

All majors in natural resources must complete the general education program as required of all students (See General Education Requirements). In addition, this major requires a minimum of thirty hours of work selected from natural resources, agriculture, and biology. In the case of Park Management and Recreation, physical education is required.

GENERAL RESOURCE MANAGEMENT In addition to general education course requirements, for an option in General Resource Management, these courses are required: Natural Resources 205, 321, 450, 451. To meet the 30-hour minimum requirement of this major and to fulfill the elective hours, these courses are suggested: Natural Resources 201, 202, 311, 312, 401, 402, 403; Agriculture 210; Biology 202, 303, 306, 308; Geography 101; Economics 201.

FISHERIES MANAGEMENT In addition to general education courses requirements, for an option in Fisheries Management, these courses are required: Natural Resources 205, 314, 321, 404, 405, 450, 451. To meet the 30-hour minimum requirement of this major and fulfill the elective hours, these courses are suggested: Biology 200, 201, 204, 303, 307, 308; Natural Resources 201, 202, 309, 313, 403; Geography 101; Economics 201.

WILDLIFE MANAGEMENT In addition to general education course requirements, for an option in Wildlife Management, these courses are required: Natural Resources 205, 311, 321, 403, 450, 451. To meet the 30-hour minimum requirement of this major and fulfill the

elective hours, these courses are suggested: Agriculture 210; Biology 200, 201, 202, 303, 308; Natural Resources 201, 202, 312, 313, 314, 400, 401, 402, 404, 405; Geography 101; Economics 201.

SOIL AND WATER MANAGEMENT In addition to general education course requirements, for an option in Soil and Water Management, these courses are required: Agriculture 208; Natural Resources 205, 313, 321, 401, 402, 450. To meet the 30-hour minimum requirement of this major and fulfill the elective hours, these courses are suggested: Biology 202, 204, 303, 308; Natural Resources 201, 202, 400; Geography 101; Economics 201.

VEGETATION MANAGEMENT In addition to general education course requirements, for an option in Vegetation Management, these courses are required: Natural Resources 205, 321, 402, 450, 451; Biology 202, and 306. To meet the 30-hour minimum requirement of this major and fulfill the electives hours, these courses are suggested: Agriculture 208, 210, 308; Biology 303, 308; Natural Resources 201, 202, 401, 403; Geography 101; Economics 201.

PARK MANAGEMENT AND RECREATION In addition to general education course requirements, for an option in Park Management and Recreation, these courses are required: Natural Resources 205, 301, 400, 450, 451; Physical Education 204, 309, 407. To meet the 30-hour minimum requirement of this major and fulfill the elective hours, these courses are suggested: Agriculture 210; Biology 202, 308; Natural Resources 201, 202, 321, 401, 402, 403; Geography 101; Economics 201.

ENVIRONMENTAL HEALTH In addition to general education course requirements, for an option in Environmental Health, these courses are required: Natural Resources 202, 205, 313, 321, 451; Biology 305, 402. To meet the 30-hour minimum requirement of this major and to fulfill the elective hours, these courses are suggested: Natural Resources 201, 401; Biology 200, 204, 303, 307; Chemistry 203, 301, 302; Geography 101; Economics 201.

NATURAL RESOURCES (30)

105. BASIC ECOLOGY. The study of the fundamental relationships between the living and non-living worlds, with special emphasis on man's place in nature. Prerequisites: Biology 100, 101-102, or consent of instructor. Not offered for credit to majors in Biology, Agriculture, and Natural Resources. Lectures, laboratory, and field trips. Credit, three hours.

106. URBAN ECOLOGY. Ecological relationships of the urban environment, with special emphasis on the biological effects of domestic and industrial pollution, population density and urban resources. Prerequisite: Biology 100 or 101-102. Credit, three hours.

202. MICROCLIMATOLOGY. A study of the climate near the ground. Influence of vegetation, snow, fog, and topography on microclimates. Agricultural and medical implications. Microclimate of cities. Offered in alternate spring semesters. Credit, three hours.

205. ECOLOGY. The study of organisms in relation to their environment. Two lectures and one 150-minute laboratory period per week. The course includes 3 week-end field trips. Offered in fall semesters. Prerequisites: Biology 101-102, or consent of instructor. Credit, four hours.

301. NATURAL RESOURCES AND PARK MANAGEMENT. Practical and theoretical procedures employed in administering natural resources and parks, including design of public parks. Credit, three hours.

309. AQUATIC ECOLOGY. The study of aquatic organisms in relation to their environment. Two lectures and one 150-minute laboratory period per week. Prerequisites: Biology 100, 101-102, or consent of the instructor. Credit, three hours.

311. MAMMALOGY. The identification, classification, distribution, evolution, and life history of mammals. Prerequisites: Biology 100, 101-102, or consent of the instructor. Credit, three hours.

312. ORNITHOLOGY. A study of the field identification, ecology, and biology of the birds of the Delaware-Maryland-Virginia area. The course includes weekly field trips. Prerequisites: Biology 100, 101-102, or consent of the instructor. Credit, three hours.

313. LIMNOLOGY. A study of the biological, chemical, and physical factors in streams and lakes, and the effects of these factors upon water and upon aquatic organisms. Prerequisites: Biology 101-102 and Chemistry 101-102, or consent of the instructor. Credit, three hours.

314. ICHTHYOLOGY. The identification, classification, distribution, evolution, and life history of fishes. Prerequisite: Biology 201 or consent of the instructor. Credit, three hours.

330. HUMAN ECOLOGY. The social biology of man. A study of the inter-relationships of man and his environment and the implications of the growth of human populations. Jointly offered by the Departments of Sociology and Agriculture and Natural Resources. Prerequisite: Consent of the instructors. Credit, three hours.

400. INTERPRETING THE NATURAL ENVIRONMENT. An introduction to interpretive natural history, including the design and preparation of trails, exhibits, and interpretive literature. One lecture and one 3-hour seminar-laboratory period per week. Credit, three hours.

401. SOIL AND WATER MANAGEMENT. A study of the theories and practices employed in managing soil and water. Coordination of soil and water uses to improve productivity and to prevent erosion depletion. Effects of pesticides, pollution and drought. Two one-hour lectures and one two-hour laboratory per week and an all-day field trip. Prerequisites: Natural Resources 205 and Agriculture 209 or the consent of the instructor. Credit, three hours.

402. VEGETATION MANAGEMENT. A study of the theories and applications of plant ecology pertaining to the management of natural or semi-natural vegetation. Effects on vegetation of pesticides, fire, and mechanical manipulation. Consideration is given to management of right-of-way vegetation. Two 3-hour seminar-laboratories. Offered in alternate fall semesters. Prerequisite: Natural Resources 205 or consent of the instructor. Credit, three hours.

403. WILDLIFE MANAGEMENT. A study of the theories and applications of animal ecology pertaining to the management of natural populations and communities. Life history studies of selected wildlife species. Relationships of wildlife to ecosystems, including effects of pollution, pesticides, and habitat conditions. Two 3-hour seminar-laboratories. Offered in alternate spring semesters. Prerequisites: Natural Resources 205 or consent of the instructor. Credit, three hours.

404. FISHERIES SCIENCE. A study of the environmental and biological factors related to the physiology and behavior of fishes. Prerequisites: Natural Resources 205, 321, or consent of the instructor. Credit, three hours.

405. PRINCIPLES OF FISHERIES MANAGEMENT. A study of the capacities of aquatic environments required by fishes with emphasis on management problems typical of selected environments. Prerequisites: Natural Resources 205, 314, and 404 or consent of the instructor. Credit, three hours.

452. ENVIRONMENTAL EDUCATION WORKSHOP. Opportunity for practical experience in development and implementation of environmental education concepts from pre-school to adult. May be elected whenever offered. Prerequisite: Consent of instructor. Credit, one to three hours per semester.

453-454. PEOPLE AND THE PLANET. A series of lectures and seminars designed to help the general student to understand the relationships between man and his environment with emphasis on planning for the future through democratic decision making processes. Credit, three hours per semester.

455. POPULATION-ENVIRONMENT CURRICULUM, K-12. The integration of a conceptual framework for population-environmental studies in school curriculum as a part of a program in environmental studies. Prerequisite: consent of instructor. Credit, three to six hours.

AGRICULTURE AND NATURAL RESOURCES

101-102. AGRICULTURE AND NATURAL RESOURCES SCIENCE. The role of Agriculture and Natural Resources in man's past, present, and future. Discussion of current topics in applied biology. Lectures, laboratories, and field trips. Credit, two hours.

321. BIOMETRICS. A study of the application of statistics to life sciences. Three one-hour lectures per week. Prerequisites: Biology 101-102 and one year of college mathematics or consent of the instructor. Credit, three hours.

322. BIOMETRICAL APPLICATIONS. Practical work in the use of statistics in the life sciences. To be taken concurrently with Psychology 322. Credit, one hour.

323. AGRICULTURAL AND NATURAL RESOURCES MACHINERY. A study of the design, construction, and maintenance of machinery used in agriculture and natural resources. Emphasis will be placed on mechanical principles, such as simple machines, mechanical advantage, and machine efficiency. Equipment selection will be considered from an economic and mechanical viewpoint. Two lectures and one laboratory period per week. Credit, three hours.

324. AGRICULTURAL AND NATURAL RESOURCES POWER. A study of the types of power available to operate agricultural and natural resources equipment. Combustion engines, electric motors and other power sources will be explored. Design, operating principles and maintenance will be emphasized. Measurements of power and power source selection will be considered. Two lectures and one laboratory period per week. Credit, three hours.

350. PROBLEMS IN AGRICULTURE AND NATURAL RESOURCES. An opportunity to pursue independent study and research. May be elected in any semester. Credit, one to three hours per semester.

441-442. SENIOR RESEARCH PROJECT. An opportunity to undertake a research project in Agriculture and Natural Resources. Prerequisite: Open to students with a 3.125 cumulative average in Agriculture and Natural Resources, and overall cumulative average of 2.75, and senior standing in Agriculture and Natural Resources. Credit, six hours.

450. SEMINAR IN AGRICULTURE AND NATURAL RESOURCES. Discussion of topics of current interest. Presentation of student papers. Lecturers, discussions, films, field trips. Credit, one hour per semester.

451. AGRICULTURE AND NATURAL RESOURCES ECOSYSTEMS. A senior level philosophical course, integrating concepts in social, physical, and biological sciences with an introduction to the quantitative synthesis of ecological systems. The course is designed to provide the specialist with a total view of resource use and management. Prerequisites: Biology 205 and Natural Resources 321 or consent of the instructor. Offered in spring semesters. Credit, three hours.

THE DEPARTMENT OF ART EDUCATION

Associate Professor: Berhalter (Chairman)

Assistant Professor: Duff

Instructors: Satchell, Bassols

CURRICULUM IN ART EDUCATION

ART EDUCATION MAJOR — All students who select a major in Art Education must complete the general education program as required of all students (See General Education Requirements). In addition, the following courses are required: Psychology 201, 302, 316; Education 204, 411, 400 or 412; seven hours of free electives: Art Education 202, 203, 204, 301, 302, 303, 304, 306, 311, 312, 313, 341, 342, 401, 402, 403, 408, and 410. Five hours of art electives are also required.

Art Education Minor – The following five areas must be completed for a total of 18 hours:

1. Six hours to be selected from Art 101, 311, 312, 313, and 314.
2. Two hours to be selected from Art 102, 201, 202, 341, and 342.
3. Five hours to be selected from Art 203, 204, 303, 305, and 401.
4. Three hours to be selected from Art 304, 402, 403, and 408.
5. Two hours to be selected from Art 301, 302, 306, and 413.

COURSE DESCRIPTIONS

ART EDUCATION (05)

101. ART APPRECIATION. An introduction to analysis and evaluation of the visual arts with emphasis on the relationship of end product to design, technique and cultural background. Lectures are presented with the use of slides and other visual aids. Credit, three hours.

102. ART IN ELEMENTARY EDUCATION I. Designed to orient the prospective nursery, kindergarten, and elementary teacher to art through creative experiences in media suited to the particular age level. The philosophy and appropriate goals of art instruction are considered along with practice. Credit, two hours.

201. ART IN ELEMENTARY EDUCATION II (Crafts). Introductory laboratory experiences in construction processes with various art media. Particular reference is given to their appropriateness for teaching in the nursery, kindergarten, and elementary school. Credit, two hours.

202. ELEMENTARY ART EDUCATION FOR ART MAJORS. Designed to meet the needs of prospective elementary art teachers. This course deals with the theoretical basis of Art Education and practical methods of teaching art through studio experiences. Credit, three hours.

203. ELEMENTS OF DESIGN. Integration of the structural elements of two and three dimensional design as a basis for creative work in the visual arts. Credit, two hours.

204. DRAWING AND COMPOSITION. Offers experiences in organizing visual forms through the use of varied art media. Credit, two hours.

301. MODELING AND SCULPTURE. Emphasis is placed on design in three-dimensional sculpture, utilizing clay, plaster, wood and other materials. Credit, three hours.

302. CERAMICS AND POTTERY. Various pottery processes are covered including throwing on the wheel, hand built pottery, and kiln firing techniques. Credit, three hours.

303. LETTERING AND COMMERCIAL ART. Instruction given in lettering skills with pen and brush, black and white illustration techniques, color theory and layout design. Credit, two hours.

304. DRAWING AND PAINTING. Planned to develop the ability of the student in creative expression using various media. Art 203 and 204 are prerequisites for Art Education majors. Credit, three hours.

305. INTERIOR DESIGN. A study in the problems of furnishing and decorating interiors with relationship to function and environment. Emphasis is placed on the studio skills required for an interior design presentation in both two and three dimensions. Credit, three hours.

306. JEWELRY DESIGN. Introduction to basic jewelry techniques and related metal work. Credit, three hours.

311. ART HISTORY I. Ancient Art. A study of the development of visual art forms from Prehistoric Cave Art through Mesopotamian, Egyptian, Aegean, Greek and Roman civilizations.

Painting, sculpture, architecture, and crafts are considered. Credit, three hours.

312. ART HISTORY II. Medieval and Renaissance Art. A study of the development of the visual arts forms of the Early Christian, Byzantine, Medieval, Gothic, Renaissance, and Baroque periods. Emphasis is on the role of religion and the development of the humanist traditions as it affects the development of art. Credit, three hours.

313. ART HISTORY III. Modern Art. The development of the visual arts from 1750 to the present day. Emphasis will be on the many styles and objectives of contemporary artists and the antecedents. Credit, three hours.

314. ART HISTORY IV. Non-Western Art. The development of the visual art forms of Africa (excluding Egypt), Ancient North, Central and South America, Oceania, and Asia will be considered. Credit, three hours.

341. METHODS AND MATERIALS FOR ELEMENTARY ART TEACHERS. This course is designed to give prospective elementary art teachers current methods and practices in Art Education through discussions, readings, field trips, and visual media. Credit, three hours.

342. METHODS AND MATERIALS FOR SECONDARY ART TEACHERS. This course is designed to give prospective secondary art teachers current methods and practices in Art Education through discussions, readings, field trips, and visual media. Credit, three hours.

401. PRINTMAKING. Introduces students to various fine arts methods of the graphic arts. Monoprinting, intaglio, relief, planographic and stencil processes will be explored. Emphasis on techniques and processes. Credit, three hours.

402. WATER COLOR PAINTING. Introduces various methods of handling water color. Experimentation with techniques, development of skills, discussion of methods and styles of water colorists. Credit, two hours.

403. FIGURE DRAWING AND PAINTING. Designed to help the student develop an ability in drawing the human figure and in understanding the structure of the human body. Prerequisites: Art 204 and 304 for Art Education majors. Credit, two hours.

406. PHOTOGRAPHY. Designed to give the student an introduction to camera and darkroom techniques. (Limited enrollment with permission of instructor. Prerequisites: course work in composition and design). Credit, two hours.

408. ADVANCED PAINTING TECHNIQUES. Emphasizes oil painting and newer media such as acrylics. This course will give further experience in painting as a means of expression, encouraging a variety of modes of expression. Prerequisites: Art 204, 304, 403. Credit, three hours.

409. INDEPENDENT STUDY. This course is designed to allow the qualified student, under the guidance of a faculty member, to pursue in depth a selected area of interest in art or Art Education. Prerequisite: Departmental approval. Credit, 1-4 hours.

410. SEMINAR IN ART EDUCATION. This course will enable students to discuss situations and problems encountered in their student teaching in the context of current concepts and philosophy in Art Education. Prerequisite: Education 412. Credit, one hour.

411. SCULPTURE II. Designed to offer extensive use of building methods and metal techniques. Credit, three hours.

412. CERAMICS II. Course emphasizes use of the potter's wheel as well as glazing techniques and glaze formulation. Credit, three hours.

413. FIBERS. Studio experience in fiber art forms including weaving, macrame, fiber sculpture, various loom and off loom procedures, warp design, basic weaves and knots and designing woven textiles. Credit, one-four hours.

THE DEPARTMENT OF BIOLOGY

Professors: Ferguson (Chairman), *Dill
Associate Professors: Helmy Ofosu

Assistant Professors: Sandridge, *Tucker
Instructors: Driskill, Petrosky

The department aims to furnish those students desiring to major or minor in biology with the background necessary to become successful secondary school teachers and/or to develop within them an educational background for later specialized work in graduate and professional schools.

The objectives of the Biology Department are as follows:

1. To develop in the student a respect for and the ability of a clear and unbiased method of thinking to apply the same.
2. To develop in the student an appreciation for and some understanding of the organic world.
3. To familiarize the student with biological principles that a modern citizen needs if he is to make an intelligent and effective adjustment to the demands of life.

CURRICULUM OPTIONS IN BIOLOGY**

BIOLOGY MAJOR (NON-TEACHING) This program provides an adequate background for students planning to pursue studies in medicine, dentistry, graduate biology, laboratory technology, and related areas.

All students who select this major must complete the general education program as required of all students (See General Education Requirements). In addition thirty to thirty-three hours of credits are required in the major areas as follows: Biology 101-102, 200, 201, 204, 303, 304, 305, 401. In addition, the biology major must complete Chemistry 101-102, 301-302; Physics 101, 102.

BIOLOGY MAJOR (TEACHING) This program is designed for students who plan to teach biology on the secondary level.

Students who select this major must complete the general education program as required of all students (See General Education Requirements). In addition, thirty to thirty-three hours are required in the major areas as follows: Biology 101-102, 200, 204, 205, 303, 400 401, and two of the following three—202, 305, 306; Chemistry 101 or 103, 205, 206; Physics 101-102; Geology 101; Education 204, 405, 411, 412; Psychology 204, 302, and 316.

BIOLOGY MAJOR (EMPHASIS IN BOTANY) This program is structured for students who wish to major in biology with emphasis in botany.

All students who select this major must complete the general education program as required of all students (See General Education Requirements). In addition, the following courses are required in the major area: Biology 101-102, 202, 205, 301, 303, 306, 321; Chemistry 101-102, 301-302; Physics 101-102. Several electives are suggested (9 or more additional hours are required): Agriculture 308; Biology 301, 305, 308, 313, 402, 451, 452; Natural Resources 202, 402, 450.

*Also listed in the Department of Agriculture and Natural Resources

**With the consent of his advisor, any biology major may substitute one biology elective for one required course in biology except for Biology 101-102 and 303. However, for a teaching major, two of the following courses must be taken: Biology 202, 305, and 306.

MINOR

BIOLOGY MINOR For a minor in biology, eighteen hours distributed as follows are required: Biology 101, 102, 303, and seven hours of electives in biology.

COURSE DESCRIPTIONS

BIOLOGY (23)

100. INTRODUCTION TO BIOLOGY. A one-semester course dealing with biological principles and designed primarily for the non-major. Topics include organization of living matter, metabolism, reproduction, genetics, evolution and ecology. Two fifty-minute class periods and one two-hour laboratory per week. Offered in both fall and spring semesters. Credit, three hours.

101-102. GENERAL BIOLOGY. An introduction to the study of life with emphasis on basic concepts: energy relationships, cell biology, physiology, genetics, developmenecology, and evolution. Also, some attention is given to taxonomy and morphology of organisms. Two lectures and one 2-hour laboratory period each week with a 1-hour recitation period each week. Must be taken in sequence. Credit four hours each.

105. BASIC ECOLOGY. The study of the fundamental relationships between the living and non-living worlds, with special emphasis on man's place in nature. Prerequisites: Biology 100, 101-102, or consent of the instructor. Not offered for credit to majors in biology, agriculture, and natural resources. Lectures, laboratory, and field trips. Credit, three hours.

200. INVERTEBRATE ZOOLOGY. A course designed to introduce the student to the major invertebrate phyla. Attention is given to taxonomy, morphology, physiology, ecology and evolution. Two lectures and one two-hour laboratory period per week. Prerequisite: Biology 101-102. Credit, three hours.

201. COMPARATIVE VERTEBRATE ANATOMY. A comparative study of the vertebrate classes with emphasis upon structure development, and evolution of the organs and organ systems. Two lectures and two laboratory periods per week. Prerequisite: Biology 101. Credit, four hours.

202. SYSTEMATIC BOTANY. The study of plant taxonomy with emphasis on vascular plants of the Del-Mar-Va peninsula. Two three-hour seminar laboratories. Offered in alternate spring semesters. Prerequisites: Biology 101-102. Credit, four hours.

204. HUMAN PHYSIOLOGY. Elementary principles of physiology with emphasis upon the function of the human organs and organ systems. Two lectures and one 100-minute laboratory period per week. Offered in alternate fall semesters. Prerequisites: Biology 101-102 or consent of the instructor. Credit, three hours.

205. ECOLOGY. A study of organisms in relation to their environment. Two lectures and one 150-minute laboratory period per week. Offered in alternate fall semesters. Prerequisites: Biology 101-102 or consent of the instructor. Credit, four hours.

207. ANATOMY AND PHYSIOLOGY. A course designed to provide nursing students with basic knowledge of the structure and function of the human body. Two fifty-minute lectures and two 100-minute laboratory periods per week. Prerequisite: Biology 101, 4 credits.

301. PROBLEMS IN BIOLOGY. An opportunity to pursue independent study and research. May be elected in any semester with consent of the instructor. Credit, one to three hours per semester.

303. GENETICS. A study of the fundamental principles of inheritance and their application to plants and animals. Two lectures and one laboratory period per week. Prerequisites: Biology 101-102. Credit, three hours.

304. HISTOLOGY AND MICROTECHNIQUES. A detailed study of the microscopic anatomy of vertebrate tissues and organs including laboratory practice in the preparation of histological slides. Two lectures and two laboratory periods per week. Prerequisites: Biology 201 and 204. Credit, four hours.

305. BACTERIOLOGY. A study of the taxonomy, physiology, morphology and cultivation of bacteria with special emphasis on the relation of bacteria to the health of man, animals and plants. Two lectures and two laboratory periods per week. Prerequisites: Biology 101-102. Credit, three hours.

306. PLANT PHYSIOLOGY. A survey of modern plant physiology, including the study of photosynthesis, metabolism of organic materials, water relations, inorganic nutrition, plant growth regulators, and plant movements. Two lectures and one 150-minute laboratory period per week. Offered in alternate spring semesters. Prerequisites: Biology 101-102. Credit, three hours.

307. PARASITOLOGY. An introduction to the general principles of animal parasitism with emphasis upon pathogenic parasites especially those found in association with man. Two lectures and one 2-hour laboratory period per week. Credit, three hours.

308. BIOGEOGRAPHY. A study of the spatial distribution of organisms and the factors responsible for their distribution, including genetic, anthropologic and social implications. Two 3-hour seminar laboratories. Offered in alternate fall semesters. Prerequisites: Biology 101-102 or consent of the instructor. Credit, three hours.

311. MAMMALOLOGY. A study of the identification, classification, distribution, evolution, and life history of mammals. Prerequisite: Biology 201 or consent of instructor. Credit, three hours.

312. ORNITHOLOGY. A study of the field identification, ecology, and biology of the birds of Delaware-Maryland-Virginia. The course includes weekly field trips. Credit, three hours.

313. LIMNOLOGY. A study of the biological, chemical, and physical factors in streams and lakes and the effects of these factors upon water and aquatic organisms. Prerequisites: Biology 101-102 and Chemistry 101-102. Credit, three hours.

314. ICHTHYOLOGY. A course in the identification, classification, distribution, evolution, and life history of fishes. Prerequisite: Biology 201 or consent of the instructor. Credit, three hours.

321. BIOMETRICS. A study of the application of mathematics and statistics to the life sciences. One 3-hour seminar per week. Offered in alternate fall semesters. Prerequisites: Biology 101-102 and one year of college mathematics. Credit, three hours.

400. METHODS AND MATERIALS FOR BIOLOGY TEACHERS. A survey of the methods, materials, and laboratory skills used in teaching biology. Emphasis is placed on teaching units produced by national curriculum study groups. One lecture and one 3-hour laboratory period per week. Offered in fall semesters. Prerequisite: Junior standing in biology. Credit, three hours.

401. EMBRYOLOGY. A study of embryonic development of the frog, chick, pig and man. Two lectures and two laboratory periods per week. Prerequisite: Biology 201. Credit, four hours.

402. RADIATION BIOLOGY. An introduction to the physical basis of radioactivity and its effects on biological matter. Special emphasis is given to genetic effects of radiation. Two lectures and one laboratory period per week. Prerequisites: Biology 101-102 and Chemistry 101-102. Credit, three hours.

404. INTRODUCTION TO CELL BIOLOGY. An introduction to the study of the cellular ultra-structure and the form-function relationship. Methods for studying cells will be considered; however, emphasis will be placed on the use of the electron microscope as it applies to the investigation of cellular processes. Two lecture periods and one 2-hour

laboratory period per week. Prerequisites: Biology 101-102 and 304 and one semester of organic chemistry or biochemistry. Credit, three hours.

451-452. SENIOR RESEARCH PROJECT. An opportunity to undertake a research project in biology. A thesis is required. Open to students with a 3.25 cumulative average in biology and an overall cumulative average of 2.75. Offered in fall semesters. Prerequisite: Junior standing in biology. Credit, three hours.

499. BIOLOGICAL SEMINAR. Selected topics on the history and development of biological concepts treated by oral reports and discussions. Special attention is given to topics of current interest. One hour per week. Prerequisites: Biology 101-102. Credit, one hour per semester.

THE DEPARTMENT OF CHEMISTRY

Professors: Williams (Chairman), Larson, Machen, Wilkinson
Assistant Professor: Davis

The Department of Chemistry strives to provide a sound foundation in chemistry for students wishing to concentrate in chemistry and/or chemical engineering; to prepare students for professional careers in chemistry and for graduate study; to provide a proper sequence of courses for those students preparing to teach chemistry in the secondary school or preparing to enter dental, medical, or other health professional schools; and to meet the needs of students wishing to secure a knowledge of the fundamental principles of chemistry.

All majors in chemistry and chemical engineering are expected to affiliate with the Delaware State College Chapter of American Chemical Society Student Affiliates during their freshman year and to maintain their affiliation as long as they are registered in the department.

All students who select a major within the Department of Chemistry must complete the general education program as required of all students. (See General Education Requirements). Specific courses required for the various curriculum options are indicated below.

CURRICULUM OPTIONS IN CHEMISTRY

CHEMISTRY MAJOR (NON-TEACHING) For students who desire to prepare for professional careers in chemistry and for graduate study, the Department offers a curriculum which meets the standards adopted by the American Chemical Society for undergraduate professional education in chemistry. The requirements for a major in chemistry in this ACS approved program are forty-two (42) hours, distributed as follows: Chemistry 101-102, 301-302, 303-304, 306, 308, 407-408, and six hours of electives, three in chemistry and three in advanced mathematics or physics; or six in advanced chemistry. In addition, a chemistry major must take *German 101-102 and 201-202; Mathematics 221-222; and Physics 201-202. Chemistry majors with a biochemical interest are also required to take Biology 101-102. Those students satisfactorily completing this curriculum will be certified by the department chairman as having fulfilled the minimum requirements for undergraduate professional training in Chemistry adopted by the American Chemical Society.

CHEMISTRY MAJOR (TEACHING) For students preparing to teach chemistry in the secondary school, the Department offers a curriculum in chemistry education which meets the standards adopted by the Delaware Board of Education for state certification. The requirements for a teaching major in chemistry are thirty-

three (33) hours, distributed as follows: Chemistry 101-102, 301-302, 303-304; 306 or 308, and 417. In addition, a chemistry teaching major must take Biology 100; Education 204, 312, 405, 411, and 412; *French, German, or Spanish 101-102, and 201-202; Geology 101; Mathematics 221-222; Natural Resources 205; Physics 201-202; and Psychology 201, 204, 302, and 316. Those students satisfactorily completing this curriculum are eligible for state certification to teach chemistry in the secondary school.

CHEMISTRY MAJOR (PRE-PROFESSIONAL) For students preparing to enter dental, medical, or other health professional schools and who desire minimal professional training in chemistry, the Department offers a pre-professional curriculum in chemistry. The requirements for a pre-professional major in chemistry are thirty-four (34) hours, distributed as follows: Chemistry 101-102, 301-302, 303-304, 306, and 308. In addition, a pre-professional major in chemistry must take Biology 101-102; *French, German, or Spanish 101-102 and 201-202; Mathematics 221-222; Physics 201-202. Students who successfully complete this curriculum will have satisfied the requirements for admission to dental, medical or other health professional schools.

CHEMISTRY MINOR A student who desires a minor in chemistry must complete eighteen (18) hours in chemistry, distributed as follows: Chemistry 101-102, 301-302.

*A chemistry major who makes a score of 560 or higher on the CEEB Achievement Test in a foreign language prescribed in the Curriculum option, either prior to entering Delaware State College or during the freshman or sophomore year of residence at the College, will be considered to have satisfied the foreign language requirement for the baccalaureate degree in chemistry.

CURRICULUM OPTIONS IN CHEMICAL ENGINEERING

CHEMICAL ENGINEERING MAJOR (See Chemical Engineering Option under Cooperative Program in Engineering for specific requirements.)

CHEMISTRY/CHEMICAL ENGINEERING MAJOR (See Chemistry/Chemical Engineering Option under Cooperative Program in Engineering for specific requirements.)

COURSE DESCRIPTIONS

CHEMISTRY (24)

101-102. GENERAL AND ELEMENTARY ANALYTICAL CHEMISTRY. A course covering the basic principles, laws and theories of chemistry including the fundamental theory of analytical chemistry and laboratory practice in the basic methods of quantitative analytical separations. Three lectures and one 150-minute laboratory period per week. Corequisites: Mathematics 101-102 or 103-104. Credit, four hours each.

105. INTRODUCTION TO CHEMISTRY. A course covering chemical symbols, formulas and equations, the states of matter, atomic structures and bonding, solutions, acids and bases, pH, chemical equilibrium, rates of chemical reactions, oxidation and reduction. (Not recommended for majors in the natural sciences or for premedical students.) Three lectures and one 150-minute laboratory period per week. Corequisite: Mathematics 101 or 103. Credit, four hours.

106. ELEMENTARY ORGANIC AND BIOCHEMISTRY. A course covering the nomenclature, methods of preparation, and properties of the principal classes of organic compounds; and the role and transformations of carbohydrates, fats, and proteins in living systems. (Not recommended for majors in the biological sciences or for premedical students.) Three

lectures and one 150-minute laboratory period per week. Prerequisite: Chemistry 101 or 105. Corequisite: Mathematics 102 or 104. Credit, four hours.

201. ELEMENTARY QUANTITATIVE ANALYSIS. A course covering the essentials of volumetric and gravimetric analysis; theory and practice of analytical separation; chemical equilibrium, and a survey of analytical instrumentation. Two lectures and two 150-minute laboratory periods per week. Prerequisites: General Chemistry (8 hours), Mathematics 101-102 or 103-104. Credit, four hours. (This course is only offered when it is needed by chemistry majors, who are transfer students, to satisfy the analytical chemistry course content of Chemistry 101-102.)

202. FORENSIC CHEMISTRY. Theory and practice in the isolation and identification of drugs using thin-layer chromatography, ultraviolet and infrared spectrophotometry, gas chromatography and liquid chromatography. Three lectures and one 150-minute laboratory period per week. Prerequisites: Chemistry 101-102 or 105 and 106. Credit, four hours.

203. WATER CHEMISTRY—BASIC PRINCIPLES. An introduction to the basic principles of water chemistry with particular emphasis on the principal physical and chemical methods of testing water and waste water and the mathematical treatment employed in the interpretation of the analytical data. Three lectures and one 150-minute laboratory period per week. Prerequisites: Chemistry 101-102; Mathematics 101-102 or 103-104. Credit, four hours.

206. ELEMENTARY BIOCHEMISTRY. A study of the chemical behavior and biological function of fats, carbohydrates, and proteins in life processes. (Not recommended for premedical students.) Three lectures and one 150-minute laboratory period per week. Prerequisite: Elementary Organic Chemistry (4 hours). Credit, four hours. (This course will not be offered after the Fall Term, 1977)

301-302. ORGANIC CHEMISTRY. A study of functional group characteristics, preparations, reactions and interrelationships of the various classes of organic compounds; theory and mechanism associated with organic reactions; heterocyclic compounds; complex substances; and problems in synthesis. Laboratory practice in the synthesis of typical aliphatic and aromatic compounds, their purification and a study of their properties. Three lectures and two 150-minute laboratory periods per week. Prerequisites: Chemistry 101-102. Credit, five hours each.

303-304. PHYSICAL CHEMISTRY. A mathematical treatment of the fundamentals of theoretical chemistry with emphasis on thermochemistry and thermodynamics; chemical equilibrium; chemical kinetics; electrochemistry; atomic and molecular structure; surface and photochemistry. Quantitative measurements of phenomena of chemical interest and the application of chemical principles to their interpretation. Three lectures and one 150-minute laboratory period per week. Prerequisites: Chemistry 301-302; Mathematics 221-222; Physics 201-202. Credit, four hours each.

306. INSTRUMENTAL METHODS OF ANALYSIS. An introduction to instrumentation in analytical chemistry with theoretical and practical application to spectrophotometry; spectrography; nephelometry; potentiometry; conductometry; polarography; and chromatographic methods. Two lectures and two 150-minute laboratory periods per week. Prerequisite: Chemistry 303. Corequisite: Chemistry 304. Credit, four hours.

308. INORGANIC CHEMISTRY. The fundamental concepts and chemical systems of inorganic chemistry, including atomic and molecular structure, bonding, kinetics and mechanism, ligand field theory, coordination compounds, acid-base theories, and recent advances in inorganic chemistry. Laboratory practice involving vacuum techniques, magnetic susceptibility, rate studies, preparation and determination of formation constants of coordination complexes, geometrical and optical isomerism, and redox potentials. Three lectures and one 150-minute laboratory period per week. Prerequisite: Chemistry 303. Corequisite: Chemistry 304. Credit, four hours.

401. ORGANIC QUALITATIVE ANALYSIS. The detection and identification of the more important groups and compounds; the detection, separation, and identification of the components of mixtures. Emphasis is placed on modern techniques of organic analysis. Two lectures and one 150-minute laboratory period per week. Prerequisites: Chemistry 301-302, and 306. Credit, three hours.

402. ADVANCED ORGANIC CHEMISTRY. An advanced course in the fundamental principles of organic chemistry including a survey of organic reactions from a mechanistic point of view, introduction to molecular orbital theory and a treatment of linear free energy relations. Laboratory practice in the synthesis of selected organic compounds using advanced preparative methods. Two lectures and one 150-minute laboratory period per week. Prerequisites: Chemistry 301-302, and 303. Credit, three hours.

403. BIOCHEMISTRY. A course covering the principles of biochemistry, including a study of the structural and metabolic relationships of carbohydrates, lipids, proteins, nucleic acids, enzymes and coenzymes. Three lectures and one 150-minute laboratory period per week. Prerequisites: Chemistry 301-302, and 303. Credit, four hours.

404. ADVANCED PHYSICAL CHEMISTRY. An advanced treatment of thermodynamics, the elements of quantum and statistical mechanics, chemical kinetics, and various topics in physical chemistry. Three lectures per week. Prerequisites: Chemistry 303-304. Credit, three hours.

405. INDEPENDENT STUDY AND RESEARCH. Original investigation carried on by the student under the guidance of an assigned departmental staff member. The work includes a careful search of the literature and a planned procedure of laboratory experimentation. Three 150-minute laboratory periods per week. Prerequisites: Chemistry 301-302, 303-304 and 306. Credit, three hours.

406. SELECTED TOPICS IN CHEMISTRY. Selected topics in analytical, organic, inorganic, and physical chemistry and biochemistry dependent upon the special interests of individual students. Prerequisite: Senior standing in chemistry. Credit, three hours. (This course may, with the permission of the department chairman, be repeated for credit.)

407-408. SEMINAR IN CHEMISTRY. Oral and written reports on topics chosen from the current literature. One hour per week. Credit, one hour each.

409-410. WATER CHEMISTRY-ADVANCED TECHNIQUES. A course in instrumental methods of water analysis, with theoretical and practical application to visible, ultraviolet, and infrared methods of water analysis; atomic absorption and atomic emission spectrophotometry; fluorimetry; potentiometric and polarographic methods of analysis; gas chromatography; and computer techniques. Three lectures and one 150-minute laboratory period per week. Prerequisite: Chemistry 203. Credit, four hours each.

417. METHODS OF TEACHING HIGH SCHOOL CHEMISTRY. A study of the methods and materials used in teaching high school chemistry. One lecture and one 150-minute seminar period per week. Prerequisites: Chemistry 101-102, 301-302, 303-304, and 306 or 308. Credit, three hours.

THE DEPARTMENT OF ECONOMICS AND BUSINESS ADMINISTRATION

Professors: Grandfield, Li, Bieker

Associate Professors: Price (Chairman), Talbert

Assistant Professors: Saulsbury, Sheth, Waller, Williamson

Instructors: Reaves, Deeney, Departmental Assistant: Johnson

The objectives of the Department of Economics and Business Administration are to provide the proper foundation for graduate study in economics and business; to prepare students for careers in business, industry, or the government; to prepare teachers of business subjects in secondary schools; and to train students in specific skills. Students in this department can select one of the following eight curricula for a major: Curriculum in Economics, Curriculum in Accounting, General Curriculum in Business Administration, Certificate I Curriculum in Business Education, Certificate II Curriculum in Business Educa-

tion, Certificate III Curriculum in Business Education, Curriculum in Secretarial Science, or Curriculum in Distributive Education.

The department normally offers odd numbered courses the first semester and even numbered courses the second semester.

CURRICULUM OPTIONS IN THE DEPARTMENT OF ECONOMICS AND BUSINESS ADMINISTRATION

ECONOMICS MAJOR Economics majors must complete the general education program as required of all students (See General Education Requirements). In addition, the following courses must be taken in the major area: Economics 201-202, 301, 303, 307-308, 312, 314, 411, 414, 418, 421; Business 108, 205; plus any combination of twelve hours in Business Administration, Psychology, Political Science, Sociology Urban Affairs, or Mathematics other than those enumerated in the curriculum. Twelve hours of a foreign language may be elected in lieu of the combination of twelve hours in Business Administration, Psychology, Political Science, Sociology, Urban Affairs, or Mathematics stated above.

ACCOUNTING MAJOR Accounting majors must complete the general education program as required of all students (See General Education Requirements). In addition, the following courses must be taken in the major area: Business 108, 205-206, 301, 303, 305-306, 307-308, 310, 401-402, 405, 411, 416, 423, 424, 427, 430; Economics 201-202, 307, 414.

Students majoring in this curriculum desiring to attend graduate school should elect 6 hours of calculus.

GENERAL BUSINESS ADMINISTRATION MAJOR General Business Administration majors must complete the general education program as required of all students (See General Education Requirements). In addition, the following courses must be taken in the major area: Business 108, 205-206, 301, 303, 305-306, 310, 401-402, 405, 416; Economics 201-202, 307, 414.

Students majoring in this curriculum desiring to attend graduate school should elect 6 hours of calculus.

BUSINESS EDUCATION MAJOR-CERTIFICATE I (Comprehensive for Business Education) Business Education majors must complete the general education program as required of all students (See General Education Requirements). In addition, the following courses must be taken in the major area: Secretarial Science 101-102, 103-104, 201-202, 203-204, 302, 402; Business 108, 205-206, 211, 301, 305-306, 327, 328, 351-352, 401; Economics 201; Education 204, 411, 412; Psychology 201, 302, 316.

BUSINESS EDUCATION MAJOR-CERTIFICATE II (Bookkeeping and Related Business Subjects) Business Education majors must complete the general education program as required of all students (See General Education Requirements). In addition, the following courses must be taken in the major area: Business 108, 205-206, 211, 301, 305-306, 327, 328, 351-352, 401; Economics 201; Psychology 201, 302, 316, Education 204, 411, 412; Secretarial Science 302; Basic Business electives—9 hours (3 hours in Accounting).

BUSINESS EDUCATION MAJOR-CERTIFICATE III (Secretarial and Related Business Subjects) Business Education majors must complete the general education program as required of all students. (See General Education Requirements). In addition, the following courses must be taken in the major area: Secretarial

Science 101-102; 103-104, 201-202, 203-204, 302, 402; Business 108, 211, 301, 327, 328, 351-352, 401; Economics 201; Psychology 201, 302, 316; Education 204, 411, 412; Basic Business Electives—9 hours.

SECRETARIAL SCIENCE MAJOR Secretarial Science majors must complete the general education program as required of all students. (See General Education Requirements). In addition, the following courses must be taken in the major area: Secretarial Science 101-102, 103-104, 201-202, 203-204, 302, 401; Business 108, 205-206, 301, 305, 351-352, 401-402; Economics 201, 307.

DISTRIBUTIVE EDUCATION MAJOR Distributive Education majors must complete the general education program as required of all students. (See General Education Requirements). In addition, the following courses must be taken in the major area: Economics 201; Business 108, 205, 303, 310, 320, 401, 405, 407; Psychology 201, 204, 316; Education 204, 312, 405, 411, 412, 415; Distributive Education 451, 456, 458. Majors who do not have sufficient hours of work experience to meet state certification requirements must take Distributive Education 453.

ACCOUNTING MINOR For a minor in Accounting, twenty-one hours are required as follows: Business 205 (Accounting I), Business 206 (Accounting II), Business 305 (Intermediate Accounting I), Business 306 (Intermediate Accounting II), Business 307 (Cost Accounting), and any two other Accounting courses.

BUSINESS ADMINISTRATION MINOR For a minor in Business Administration, twenty-one hours are required as follows: Economics 201 (Principles of Economics), Business 205 (Accounting I), Business 310 (Management), Business 401 (Business Law I), Business 405 (Marketing), and any two other Business (42) courses except Business Methods.

ECONOMICS MINOR For a minor in Economics, twenty-one hours are required as follows: Economics 201 (Principles of Economics), Economics 202 (Economic Problems), Economics 307 (Introductory Statistics), Economics 414 (Money and Banking), and any other three courses in Economics.

COURSE DESCRIPTIONS

ECONOMICS (40)

201. PRINCIPLES OF ECONOMICS. A general introductory course about basic economic processes and principles and their operation in economic order. Credit, three hours.

202. ECONOMIC PROBLEMS. A course involving the study of selected economic problems against a background of principles developed in the introductory course. Prerequisite: Economics 201. Credit, three hours.

301. INTERMEDIATE ECONOMIC THEORY. Theory of relative prices and income distribution under perfect and imperfect competition. Prerequisite: 201. Credit, three hours.

303. INTRODUCTION TO MATHEMATICAL ECONOMICS. A course dealing with logical structure of mathematics as applied to economics. Use of mathematics in the fundamental propositions of microeconomics and macroeconomics is emphasized. Prerequisites: Mathematics 101, 102, or 104, and Economics 201 or permission of the instructor. Credit, three hours.

307. INTRODUCTORY STATISTICS. An elementary course which deals with measures of central tendency, distribution, probability, relationship, and other techniques used in the manipulation and interpretation of quantitative data. Credit, three hours.

308. ADVANCED STATISTICS. Time series; methods of isolating trend, season and cyclical fluctuations; index number theory, construction, and applications of statistical technique to economic and business problems. Prerequisite: Economics 307. Credit, three hours.

312. HISTORY OF ECONOMIC THOUGHT. Social economic theories from the Greek philosophers to 18th century physiocrats examined in relation to dominant and receding institutions. Economic problems and their solutions from the physiocrats and classicists to the marginal utility and general equilibrium schools, including institutional and socialist approaches. Credit, three hours.

314. CONTEMPORARY ECONOMIC PROBLEMS. An introduction to economic reasoning; and analysis of the problem of economic growth, economic security and stability, agricultural prices, and conservation of natural resources. Prerequisite: Economics 201. Credit, three hours.

321. URBAN ECONOMICS. Concepts of the city and of the urban areas as an economic entity. The role of the urban area in local and national economic growth. Economic problems of the region and the city; alternative solutions evaluated, with particular attention to Wilmington and other urban areas. Credit, three hours.

411. LABOR PROBLEMS. Major labor problems covering hours of work, wages, unemployment, the functioning of labor organizations, labor legislation, and the courts. Prerequisites: Economics 201 or permission of the instructor. Credit, three hours.

414. MONEY AND BANKING. A study of the principles of money and banking in the United States with reference to the functions of money and credit. Emphasis on the functions of commercial banks, the Federal Reserve System, and other financial institutions. Prerequisite: Economics 201. Credit, three hours.

418. BUSINESS CYCLES. A study of factors determining fluctuations in business activity, employment, price levels, and the relations of these changes to the management of the business firm. Prerequisite: Economics 201. Credit, three hours.

421. COMPARATIVE ECONOMIC SYSTEMS. Principles governing pricing, income, distribution, productivity, investment, economic stability and growth under capitalism, democratic socialism and totalitarian socialism. Prerequisite: Economics 201. Credit, three hours.

BUSINESS (42)

108. GENERAL BUSINESS. A consideration of the functions, organization, and operation of a business. A study of the different types of business establishments, such as manufacturing, service, merchandising, etc. Credit, three hours.

205. ACCOUNTING I. Functions and classification of accounts; the recording process. Development of modern accounting records, including journals and ledgers, theory of depreciation and reserve accounts. Credit, three hours.

206. ACCOUNTING II. Accounting controls, the voucher system, accounting for taxes and income taxation. Introduction to the accounting principles of partnerships, corporations, departmental and branch accounting. Prerequisite: Business 205. Credit, three hours.

211. BUSINESS MATHEMATICS. Instruction and drill in fundamental arithmetic skills; Study of processes in other areas of mathematics pertinent to business practice. Credit, three hours.

301. BUSINESS ENGLISH. A course that adapts standard English to the needs of business. Hackneyed or stereotyped expressions are omitted. Practical composition is given with emphasis upon business and writing. An understanding of the more common business terms, situations, conditions, and policies is given. The course covers the fundamental principles that govern all kinds of business letters and reports. Credit, three hours.

303. SALESMANSHIP. A study of the principles underlying the philosophy and techniques of personal selling. Credit, three hours.

305. INTERMEDIATE ACCOUNTING I. Amplified treatment of the corporation; special problems related to real and nominal accounts. Prerequisite: Business 206. Credit, three hours.

306. INTERMEDIATE ACCOUNTING II. Emphasis on accounting for special forms of business organizations, liquidation of partnerships and corporations, mergers and consolidations. Prerequisite: Business 206. Credit, three hours.

307. COST ACCOUNTING. Practices and procedures; principles and methods of handling material, labor, and overhead costs; procedures in job orders, process cost systems, and standard costs; budget principles and managerial control. Prerequisites: Business 205 and Business 206. Credit, three hours.

308. MANAGERIAL COST ACCOUNTING. An intensive study of the function of accounting with reference to managerial organization and administration. Emphasis is placed upon the relations of the accounting system to budgetary control, standard costs, and distribution costs. Prerequisites: Business 206 and Business 307. Credit, three hours.

310. MANAGEMENT. Principles and techniques of successful organization, management, and operation of business activities, including such areas as planning, sales, purchasing, personnel, and finance. Prerequisite: Business 108 or permission from the instructor. Credit, three hours.

320. RETAILING. An introduction to the field of retailing. Analysis of the fundamentals of organization, operation, and management of retail stores. Credit, three hours.

327. METHODS OF TEACHING BUSINESS EDUCATION. The principles of teaching and learning commercial subjects in junior and senior high schools. Credit, three hours.

328. ADVANCED METHODS OF TEACHING BUSINESS EDUCATION. A consideration of the problems, materials, and methods in teaching basic business subjects in junior and senior high schools. Credit, three hours.

351. DATA PROCESSING I. A basic electronic data processing course covering the key punch machine, sorter, collator, accounting machine and other peripheral equipment. Credit, three hours.

352. DATA PROCESSING II. A course with emphasis on advanced applications of basic concepts learned in Data Processing I, including an introduction to computing equipment. Prerequisite: Business 351 or permission of the instructor. Credit, three hours.

401. BUSINESS LAW I. Instruction in fundamental legal principles applicable in connection with contracts, agencies, partnerships, corporations, and other business situations. Credit, three hours.

402. BUSINESS LAW II. Instruction in legal principles pertaining to negotiable instruments, sales, bailments, chattel mortgages, conditional sales and suretyship. Prerequisite: Business 401 or permission of the instructor. Credit, three hours.

405. MARKETING. A study of the economic functions of marketing and the factors, processes, and institutions which condition these functions. Prerequisites: Business 108 and Economics 201 or permission of the instructor. Credit, three hours.

407. ADVERTISING. A study of the creation of advertising ideas and the use of advertising in business. Prerequisite: Business 108 or permission of the instructor. Credit, three hours.

411. TAXATION. Principles involved in determining taxable net income and the computation of federal income taxes for individuals, partnerships, and corporations. Credit, three hours.

416. INSURANCE. A general insurance course covering fire, casualty, and life insurance. Credit, three hours.

423. BASIC AUDITING. A study of the duties and responsibilities of an auditor, kinds of audits, and audit programs. Review of accounting theory and principles and their appli-

cation to the work of an auditor. Methods of internal control and their relation to the auditing procedure. Prerequisites: Business 205, 206, 305, 306, or permission of the instructor. Credit, three hours.

424. ADVANCED AUDITING. Solution of advanced auditing problems and the application of accepted auditing theory and practice. Prerequisites: Business 205, 206, 305, 306, and 423 or permission of the instructor. Credit, three hours.

427. GOVERNMENTAL AND INSTITUTIONAL ACCOUNTING. Accounting principles and practices of governmental and institutional organizations covering appropriations, funds, revenues, expenditures, budgets, and statements. Prerequisites: Business 205, 206, 305 and 306 or permission of the instructor. Credit, three hours.

430. ADVANCED ACCOUNTING PROBLEMS. Solutions of advanced accounting problems of the type appearing in the practice session of the Uniform CPA Examination. Prerequisites: All listed accounting courses prior to the second semester of the senior year in the Accounting Curriculum or permission of the instructor. Credit, three hours.

SECRETARIAL SCIENCE (45)

101-102. TYPEWRITING I AND II. A beginner's course devoted to achieving mastery of the keyboard and development of speed and accuracy in the manipulation of the machine. Prerequisite for Secretarial Science 102 is Secretarial Science 101 or exemption by standard examination. Credit, four hours.

103-104. STENOGRAPHY I AND II. An elementary course including theory underlying stenographic recording and building of a vocabulary. Prerequisite for Secretarial Science 104 is Secretarial Science 103 or exemption by standard examination. Credit, six hours.

201-202. TYPEWRITING III AND IV. An advanced course with emphasis upon the perfection of skill in the manipulation of the machine. Speed and accuracy are stressed. Prerequisites for Secretarial Science 201 are Secretarial Science 101, 102. Prerequisites for Secretarial Science 202 are Secretarial Science 101, 102, 201. Credit four hours.

203-204. STENOGRAPHY III AND IV. Advanced instruction and practice designed to bring the skills of the students up to professional standards. Prerequisites for Secretarial Science 203 are Secretarial Science 103-104. Prerequisites for Secretarial Science 204 are Secretarial Science 103-104, 203. Credit, three hours each.

302. BUSINESS MACHINES. A course providing experience with standard machines which are used in modern business offices, such as machines for computation, duplication, and graphic presentation. Credit, three hours.

402. SECRETARIAL PRACTICE. A course combining practice with instruction in the routine operations which confront the secretary in an office. Prerequisite: All stenography and typewriting courses or permission of the instructor. Credit, three hours.

DISTRIBUTIVE EDUCATION (44)

451. METHODS OF TEACHING DISTRIBUTIVE EDUCATION. This course is designed for those preparing to become teacher-coordinators. Methods of teaching, classroom practices, and the application of effective teaching techniques for practical work and related instruction are studied by the student. Credit, 3 hours.

453. DIRECTED WORK EXPERIENCE SEMINAR. This course is designed to assist students who have insufficient work experience backgrounds in acquiring the necessary experience to meet certification requirements. Students will meet to explore job problems, analyze skills, and study problems and challenges of employment. At the same time, it is recommended that the student be employed in a distributive occupation. Credit, 3 hours.

456. ORGANIZATION AND ADMINISTRATION OF DISTRIBUTIVE EDUCATION. This course is designed to study the philosophy and organization of distributive education programs. It will cover objectives, structures, and operations at local, state, and national

levels. Also studied will be DECA and its relationship to distributive education. Credit, 3 hours.

458. COORDINATION TECHNIQUES IN DISTRIBUTIVE EDUCATION. Coordination techniques, the functions and activities of the teacher-coordinator, training plans and agreements, and the use of advisory committees will be emphasized. Selection of students, program promotion and development, and evaluation will also be studied. Credit, 3 hours.

THE DEPARTMENT OF EDUCATION

Professors: M. Caldwell, Henderson, Thompson (Chairman)

Associate Professor: Crumley

Assistant Professors: Hazelton, *Hall, Inter, King, Von Holt

Instructors: R. Caldwell, Johnson, Motley, Sturge

Departmental Assistants: G. Gardner, L. Gardner

The Department of Education trains students through professional courses to become teachers in the elementary and secondary schools and prepares them for advanced studies in graduate school.

The department provides guidance and experiences designed to help students to develop personally and professionally, to gain both an appreciation and understanding of children, and to develop a sound philosophy of education.

The major fields of study in this department are Early Childhood Education, Elementary Education, Earth Science Education, and Occupational Teacher Education. Courses in education are offered also for those who are making preparation to teach in the secondary schools.

CURRICULUM OPTIONS IN EDUCATION

EARLY CHILDHOOD EDUCATION For a major in this area, the following courses must be taken as part of the general education requirements: Biology 100; History 205; Mathematics 105-106. Education courses required are as follows: Education 204, 301, 303, 304, 306, 308, 310, 312, 316, 320, 400N, 408, 411. Other required courses are as follows: Art 102, 201; Geography 101; Health Education 308; Home Economics 301, 314; Music 125, 201; Physical Education 303; Psychology 302, 316; Sociology 201; History 206; Seven (7) hours of electives.

ELEMENTARY EDUCATION For a major in this area, the following courses must be taken as part of the general education requirements: Biology 100; History 205; Mathematics 105-106. The following education courses are required: Education 204, 301, 302, 303, 304, 305, 308, 320, 312, 400, 408, 411, 413. Additional required courses are as follows: Psychology 302, 316; Art 102, 201; Geography 101; Health Education 308; Music 201; Physical Education 303; Physical Science 201; History 206; Nineteen (19) hours of electives.

EARTH SCIENCE EDUCATION MAJORS (Teaching) All students who select a major within the Department of Science Education must complete the general education program as required of all students (See General Education Requirements). In addition, for a major in Science Education, the following courses are required: Mathematics 210; two semester hours of Physical Education on the 100 level; Psychology 201, 316; Sociology 201; Science 209, 210, 304, 308, 414, nine hours of electives in Science; History 104; Art 201; Geology 101; Astronomy 201; Education 101, 204, 400, 408, 411; Natural Resources 105, 201, 313; Six (6) hours of free electives.

* Part of year.

OCCUPATIONAL TEACHER EDUCATION The Occupational Teacher Education Program is a "consortium", involving Delaware State College, The University of Delaware and Delaware Technical and Community College. Students obtain general and professional education at Delaware State College or University of Delaware, and technical specialization at a Delaware Technical and Community College campus. The purpose of the program is to prepare teachers for middle and high school Industrial Arts and Trade and Industrial Education positions and to provide an approved program for certification. In addition to the General Education requirement the following courses must be taken in the major area: Education 350, 352, 354 or 454, 380, 412 or 452, 415 or 450, 456, 457; Psychology 201, 204, 316; Major technical area 46 quarter credits (30 semester credits), Minor technical area 24 quarter credits (16 semester credits) in the following specializations: Construction, Electricity/Electronics, Energy Conversion and Power Mechanics, Graphic Communications, Materials and Manufacturing Processes.

TEACHER EDUCATION REGULATIONS

PROFESSIONAL EDUCATION If required for graduation in the students' major field, students proposing to teach in the elementary or secondary schools must complete the following professional education and psychology courses with a grade of "C" or better before student teaching: Psychology 302, 316; Education 405, 411.

All method courses in each academic discipline must be completed with a grade of "C" or better before student teaching.

Education 400 and 412 (Student Teaching) must be completed with a grade of "C" or better certification can be granted.

STUDENT TEACHING Candidates for the Bachelors degree in elementary or secondary education must complete successfully the requirements in student teaching with a grade of "C" or better. All candidates are assigned to student teaching on a full-time basis for twelve weeks. Additional time will be spent in preparation and evaluation of all candidates. In most cases, students will live on campus or at home during their student teaching period. However, in some instances it may be necessary for students to acquire living quarters in the community in which they are assigned to student teach. All Teacher Education majors are required to take History 104.

Those students who wish to do their student teaching during the first semester should apply on or before March 15. Students who plan to do their student teaching during the second semester should submit their applications on or before October 1.

Each academic department provides supervision for its students during their student teaching experience.

COURSE DESCRIPTIONS

EDUCATION (12)

101. FRESHMAN ORIENTATION. This course is designed to facilitate the transition from high school to college. Units on the use of the library, study methods, personal adjustment problems, choosing a vocation, and self-evaluation are included. (Required of all entering freshmen with less than fifteen hours). Credit, one hour.

204. INTRODUCTION TO EDUCATION. This course is distinctly an orientation and guidance course. It consists of a broad survey and general picture of school situations, techniques, and problems. Credit, three hours.

209. CONCEPTS AND METHODS OF LIFE SCIENCE. This course is designed to include various methods, materials and techniques involved in teaching Life Science on the elementary, junior high and middle school levels. Modern science programs will be included that are applicable.

A minimum of 8 clock hours will involve actual classroom observation / participation. Credit, three hours.

210. CONCEPTS AND METHODS OF PHYSICAL SCIENCE. This course is designed to include various methods, materials and techniques involved in teaching Physical Science on the elementary, junior high and middle school levels. Modern science programs will be included that are applicable. A minimum of 8 clock hours will involve actual classroom observation / participation. Credit, three hours.

300. PRACTICUM FOR TEACHING READING IN THE ELEMENTARY SCHOOL. Pre-service teachers actively participate in the teaching of reading and remediation of reading problems under the professional guidance of teachers in public elementary schools. It is recommended that this course be taken simultaneously with Education 301 (Teaching of Reading in the Elementary School). Credit, three hours.

301. TEACHING OF READING IN THE ELEMENTARY SCHOOLS. Introduction to the elementary school reading program. Students get acquainted with machines and materials used in the teaching of reading. Standardized and informal tests are introduced to develop skill in evaluation classroom reading abilities, capacities, and needs. A reading practicum provides in-school experience. Credit, three hours.

302. DEVELOPMENTAL READING FOR ELEMENTARY AND SECONDARY SCHOOL TEACHERS. This course includes the teaching of reading, with demonstrations and observations as well as lectures. Areas covered are initial reading procedure, directing a reading lesson, providing for individual differences, and developing word recognition skills. Credit, three hours.

303. TEACHING OF SOCIAL STUDIES. This course presents various methods of teaching the numerous phases of community living with special attention being given to community history and geography, social types and groups. Opportunities are provided for constructing units and projects in social studies for the elementary school child. Each student is required to spend at least twelve (12) clock hours in observation / participation in a public school. Prerequisite: Education 204. Credit, three hours.

304. METHODS AND MATERIALS OF ELEMENTARY SCIENCE. This course will include a survey and comparison of AAAS, ESS, EIS, SCIS, together with the philosophical basis, teaching strategy, materials and evaluative techniques for each one. Since the placement of the course preceeds the student teaching experience and the "concept" courses, only one week will be devoted to classroom observation. Attention will also be given to the development of a science program which is not a packaged one, but made from the materials at hand using any standard textbook. Credit, three hours.

305. TEACHING OF MATHEMATICS. This course addresses problems involved in teaching mathematics to elementary school children. Subject matter and various methods of presenting quantitative concepts in grades 4-8 are evaluated. Other training provided by this course includes new methods of teaching fundamental number facts as revealed by recent studies in the field, the teaching of division, common fractions, and decimals. Each student is required to spend at least twelve (12) clock hours in observation / participation in a public school. Prerequisites: Math 105 and 106 or equivalent, and Education 204. Credit, three hours.

306. TEACHING OF MATHEMATICS IN K-3 This course is designed for Early Childhood Education majors and those who wish to teach in the primary grades. Subject matter and the latest techniques of teaching will be employed with special emphasis on Piaget's theories of learning numbers. Each student is required to spend at least twelve (12) clock hours in observation / participation in a public school. Prerequisites: Math 105 and 106 or equivalent and Education 204. Credit, three hours.

307. CONCEPTS AND METHODS OF EARTH SCIENCE. A practicum designed to include modern science methods and materials of elementary, middle school, and junior high school earth science programs. Credit, three hours.

308. CHILDREN'S LITERATURE. This course presents a critical study of literature for primary and grammar grades. This course is designed for teachers of elementary education. Prerequisite: Education 204. Credit, three hours.

309. GUIDANCE OF PUPILS IN ELEMENTARY AND SECONDARY SCHOOLS. This course deals with the diagnosis of children's behavior and effective procedures and techniques available for use by teachers and administrators in directing wholesome personality growth. Prerequisite: Education 204. Credit, three hours.

310. MODERN PRACTICES IN EARLY CHILDHOOD EDUCATION. Areas covered in this course include practices, instructional and resource material, methods, and techniques in early childhood education. Opportunities for observation / participation of pre-school children in the Child Development Center are provided. Credit, three hours.

312. TECHNIQUES IN AUDIO-VISUAL EDUCATION. This is a survey of various types of audio-visual materials and how they can be used by elementary and high school teachers. Methods of evaluating and preparing these materials are considered during the semester. One lecture and two laboratory periods per week. Prerequisite: Education 204. Credit, three hours.

313. INTRODUCTION TO EXCEPTIONAL CHILDREN An introductory course for students in general and special education. It includes considerations from medicine, psychology and sociology. The focus will be on the atypical child. Credit, three hours.

314. SEMINAR IN BASIC RESEARCH. The course is limited to students of advanced standing planning to attend graduate school. Participants will receive instruction in all phases of academic library research, culminating in a major research paper, the topic of which will be determined by the student and his/her department chairperson. The course will be team taught, utilizing media, programmed, small group and individualized instruction. Grades will be given on a Pass/Fail basis. Credit, three hours.

316. NURSERY AND KINDERGARTEN EDUCATION. This course deals with the philosophy of curriculum development in pre-school education, program planning, the role of the teacher, parent-teacher relations, and the administration of nursery school and kindergartens. Each student must spend time in observation / participation in the Child Development Center. Credit, three hours.

320. TEACHING OF LANGUAGE ARTS IN THE ELEMENTARY SCHOOL. This course covers the principles, techniques, materials, and problems involved in teaching the communication skills (spelling, writing, speaking, listening, reading) to the elementary school child. Credit, three hours.

322. TEACHING READING IN THE SECONDARY SCHOOL. The course is designed to assist the teacher in extending the elementary skills along the developmental reading continuum to include the content areas and the informal diagnostic tools.

The major objective is to improve the teaching of reading in the secondary school curriculum. Prerequisite: A course in methods of teaching reading or permission of the instructor. Credit, three hours.

324. DIAGNOSIS AND REMEDIATION READING INSTRUCTION. This course is designed to enable the classroom teacher to prescribe appropriate instructional strategies based on information gathered from informal and standardized test data. Various reading problems are isolated and remediation techniques are tested in laboratory and field experiences. Prerequisite: A course in methods of teaching reading or permission of the instructor. Credit, three hours.

350. SCHOOL SHOP SAFETY AND HYGIENE. The recognition, evaluation, and control of contaminants, practical methods of hazard control, personal protection devices, plant sanitation, and physical factors related to accident prevention. Credit, three hours.

351-352. OCCUPATIONAL PRACTICUM. Supervised on-the-job work experience in the field of specialization, to be started during the second year of the four-year Occupational Teacher Education Program. Credit, three hours each.

354. ORGANIZATION & MANAGEMENT OF SHOPS AND LABS. The principles of planning, nature of instructional facilities, organization for efficient instruction, and management of vocational and industrial arts shops, labs, and classroom facilities. Credit, three hours.

380. OCCUPATIONAL EDUCATION MATERIALS AND APPROACHES. Considers methods of instruction, treatment of objectives, organization materials, classroom practices, application of effective teaching techniques for practical work and related instruction and evaluation. Credit, three hours.

400. PRE-SERVICE TEACHING IN ELEMENTARY SCHOOLS. This course directs attention to how basic principles of learning affect the organization of the elementary school curriculum. Student trainees are assigned to elementary schools for eight weeks under the supervision of a coordinating teacher. The trainees observe the experienced teachers in classroom activities, teach elementary classes, and become involved in the overall activities in an elementary school program. Prerequisites: All other courses in education and psychology except Education 408 in the Elementary Education curriculum. Credit, eight hours.

400N. PRE-SERVICE TEACHING IN NURSERY SCHOOL-KINDERGARTEN. This course provides experiences in observing and participating in responsible student teaching in the field of Early Childhood Education. The student will get four weeks of experience in each of the following: nursery school, kindergarten and primary grades. Prerequisites: All other courses in Education (except 408) and psychology. Credit, twelve hours.

404. EDUCATIONAL SOCIOLOGY. This course is a study of the relationship between the society and the school and of the obligations placed upon the school by social change. Credit, three hours.

405. PRINCIPLES OF SECONDARY EDUCATION. This course emphasizes the importance of objectives in secondary education, the role of the teacher in the realization of objectives, lesson planning, various types of high school curricula, assignments and marking systems. Credit, three hours.

406. METHODS OF TEACHING IN THE MIDDLE SCHOOL. This course is designed for those preparing to teach in the middle school. Current principles of teaching and classroom organization are evaluated in the light of present day socio-economic factors and conditions. Class activities include lectures, observation, and special reports. Credit, three hours.

408. HISTORY AND PHILOSOPHY OF AMERICAN EDUCATION. This course is a survey of the growth and development of organized education in the Western World. Attention is given to important points of view which have influenced the character and direction of American education since 1619. Credit, three hours.

411. SEMINAR IN TEACHER TRAINING. The seminar is designed for senior teacher trainees. The role and problems of student teaching are analyzed and discussed. Credit, one hour.

412. PRE-SERVICE TRAINING IN THE SECONDARY SCHOOLS. This course provides experience in observing and participating in responsible student teaching. Student trainees are assigned to secondary schools for twelve weeks under the supervision of a coordinating teacher. The trainee teaches secondary school classes, and becomes involved in the overall activities in a secondary school program. Prerequisites: All courses in Education and Psychology. Credit, twelve hours.

413. TECHNIQUES AND PRINCIPLES OF TEACHING IN THE ELEMENTARY SCHOOLS. This course gives special attention to the nature of the teacher-learning process where the elementary school child is concerned. The following areas are studied: the teacher's daily preparation; the teacher's role in cooperative planning; physical and psychological factors influencing learning; basis for constructing and using teaching devices; and principles of growth influencing the organization of the elementary school. Each

student is required to spend at least twelve (12) clock hours in observation / participation in a public school. Credit, three hours.

414. SEMINAR IN SCIENCE EDUCATION. A "situation" course which will present the problems of administration, curriculum development, program planning, literature survey, text selections, grading, laboratory, management, value development which will be faced by the students as a classroom teacher. Each student will be responsible for the presentation of the materials to his peers. The seminar will meet one day per week. Credit, 1 hour.

415. VOCATIONAL EDUCATION. This is a general survey course which has as its main purpose the acquaintance of prospective teachers with the fundamental principles for study and interpretation of significant congressional acts affecting vocational education in this country. Credit, three hours.

450. PRINCIPLES OF OCCUPATIONAL EDUCATION. This course emphasizes the background, history and philosophy of occupational education, including concepts involving social and economic attitudes, the legal, financial, and educational supports and pressures. Credit, three hours.

451-452. CLASSROOM PRACTICUM. A special supervised field experience open only to vocational or industrial arts teachers with experience in teaching as a substitute for student teaching or internship. Recommendation by the Director of Occupational Teacher Education is required. Credit, three hours each.

454. INDIVIDUALIZED INSTRUCTION TECHNIQUES. Development of teaching styles and strategies designed to assist teachers to individualize instructional programs. Emphasis on diagnosis of student needs, interest, and abilities. Strategy development for meeting educational needs of individual students. Credit, three hours.

456. YOUTH ORGANIZATIONS AND ACTIVITIES. An investigation into various effective means of involving students in organizations and activities to foster interest and leadership development in career education. A critical evaluation of local, state, and national efforts and their effects. Credit, two hours.

457. ANALYSIS TECHNIQUES AND COURSE CONSTRUCTION. This course focuses on the techniques and procedures of job analysis and their application as a basis for trade and technical course construction as well as counseling and placement in occupational education and training programs. The course will provide instruction in practical approaches to gathering and analyzing job information for use in identifying and organizing instructional content. Credit, three hours.

CHILD DEVELOPMENT LABORATORY

Director: Gloria Gardner

Assistant Director: Lola Timmons

The Department of Education operates a nursery and kindergarten for three, four, and five-year old children. The laboratory school is fully staffed by personnel qualified to give the children a fulfilling learning experience. The school is used as a laboratory in conjunction with the major in Early Childhood Education, Home Economics, and other related areas. The well-equipped facility has an observation room for use by students of the College and parents of the children.

ENGINEERING PROGRAM

Jon Olson, Director

Delaware State College is affiliated with the University of Delaware in a versatile Cooperative Engineering Program. The program is designed to prepare students for professional careers in chemical, civil, electrical, and mechanical engineering and to prepare students to enter graduate programs leading to advanced degrees in engineering or related scientific fields.

The program has two options. One option leads to a degree in engineering awarded by the University of Delaware. After completing fundamental science and basic engineering courses at Delaware State College, the student transfers to the University of Delaware to complete advanced science and engineering courses. In principle, this program can be completed in four years, two years at each institution, but the program may require a longer period for students without an advanced high school background in mathematics and science.

The other option yields a degree in chemistry, physics or mathematics from Delaware State College and a degree in engineering from the University of Delaware. This program requires a minimum of five years since the degree requirements for both science and engineering disciplines must be met. After completing three years of study at Delaware State College, a student in the dual degree program transfers to the University of Delaware to complete the professional engineering phase. Participating students must satisfy the general education requirements of both institutions. (See General Education Program in the Delaware State College and University of Delaware Bulletins for requirements.)

Although the engineering program is rigid in course selection and scheduling, each student has unique goals and skills which must be considered carefully. Students in the four-year program are advised to contact the Director of the Cooperative Engineering Program for assistance in course planning. Students in the dual degree program should confer with both the Director of the Engineering Program and the Department Chairman of the science discipline for advice concerning course selection and scheduling. The specific course requirements for each curriculum option follow.

CURRICULUM OPTIONS IN ENGINEERING

CHEMICAL ENGINEERING MAJOR. The program in chemical engineering prepares a student for professional work in development, design and operation of chemical processes and equipment; for effort in the design and development of new products; for employment in chemical, petroleum and related industries; and for graduate study in chemical engineering and allied fields. The requirements for a major in chemical engineering are as follows:

Chemical Engineering 230, 231, 325, 332, 341, 342, 345, 432, 443, and 445; and a minimum of 25 credit hours of approved technical electives. The additional requirements are: Chemistry 101-102; 301, (302 is a suggested technical elective), and 303-304; Engineering 125, Mathematics 221, 222, 223, and 301; Physics 201-202, and 24 credit hours in the general education program.

CHEMISTRY/CHEMICAL ENGINEERING MAJOR. The dual degree program in chemistry/chemical engineering is designed to prepare students to apply chemical knowledge to practical purposes. The combination of a background in chemistry with chemical engineering knowledge equips motivated students to make technical achievements of a broader range. The requirements for a major in chemistry/chemical engineering are 30 hours in chemistry and 54 hours in chemical engineering and technical electives, distributed as follows:

Chemistry 101-102, 301-302, 303-304, and 306; Chemical Engineering 230, 231, 325, 332, 341, 342, 345, 432, 443, and 445; and 24 hours of approved technical electives. In addition, a chemistry/chemical engineering major must take Engineering 125, *French, German or Spanish 101-102 and 201-202; Mathematics 221, 222, 223, and 301; and Physics 101-102. A minimum of 155

hours are required for the Bachelor of Science degree in Chemistry and the Bachelor of Chemical Engineering degree.

*A Chemistry/Chemical Engineering major who makes a score of 560 or higher on the CEEB achievement test in a foreign language prescribed in the curriculum option, either prior to entering Delaware State College or during the freshman or sophomore year of residence at the College will be considered to have satisfied the foreign language requirement for the baccalaureate degree in chemistry.

CIVIL ENGINEERING MAJOR. A career in civil engineering includes the traditional tasks of planning, designing and constructing structures such as bridges, buildings, dams, highways and tunnels. In addition, the civil engineer today is concerned with air and water quality management, the rational protection of the environment and careful utilization of natural resources. A student with a bachelor's degree in civil engineering is equipped to enter practice or to continue in graduate training. The requirements for a degree in civil engineering are 124 total credit hours in engineering and related courses including:

Civil Engineering 223, 251, 301, 302, 331, 382, 403, 420, and 421; Engineering 125, 132 and 133; Engineering Mechanics 211, 212, 301, 302, 305 and 306; and 21 hours of approved technical electives. In addition, a civil engineer must take Chemistry 101-102, Economics 201, Mathematics 221, 222, 223, 301; Physics 201-202 and 24 credit hours in general education.

PHYSICS/CIVIL ENGINEERING MAJOR. The dual degree program in physics/civil engineering is designed to provide the basic scientific and professional education necessary to enter any branch of civil engineering. This interdisciplinary training has proved advantageous to the modern engineer in the era of ever-growing technology and research. Opportunities for physics/civil engineering graduates are in the fields of irrigation, hydraulics, structures, highway construction, soil mechanics and foundations, water resources, environmental and ocean engineering. They also exist in administration, research and general industry. A total of 158 hours is required for a major in physics/civil engineering. These include 28 hours in physics and 63 hours in engineering and related courses distributed as follows:

Physics 201-202, 303-304, 305, 306, and 401-402; Engineering 125, 132 and 133; Civil Engineering 223, 251, 301, 302, 331, 382, 403, 420, and 421; Engineering Mechanics 211-212, 301, 302, 305, and 306; and 21 hours of technical electives. In addition, a physics/civil engineering major must take Chemistry 101-102, Economics 201, and Mathematics 221, 222, 223, and 301; and satisfy the general education programs of both institutions.

ELECTRICAL ENGINEERING MAJOR. A basic degree in electrical engineering prepares students for careers in communication, computers, control, power generation, as well as broadly-based work in applied science or additional graduate training. Students use the technical elective program to specialize in one of the broad areas of electrical engineering practice, such as automatic control, communication, digital system design, nuclear science or solid state device development. The minimum requirements of 127 credit hours include:

Electrical Engineering 202, 205, 307, 309, 312, 318, and 320; Engineering 125, Engineering Mechanics 212, Materials and Metallurgy 302, Mechanical Engineering 307, 15 credit hours of electrical engineering electives, and 9 credit hours of technical electives. In addition, students are required to take Chemistry 101-102; Mathematics 221, 222, 223, and 301; Physics 201-202 and 401-402; and 24 credit hours in the general education program.

PHYSICS/ELECTRICAL ENGINEERING MAJOR. The dual degree in physics/electrical engineering prepares students more completely in the basic sciences associated with electrical engineering. Accordingly, the program is particularly useful for those students planning to attend graduate school. The areas for specialization are the same as those for the electrical engineering major. The total credit of 153-156 hours include:

Electrical Engineering 202, 205, 307, 309, 312, 318, and 320; Engineering 125, Engineering Mechanics 212, Materials and Metallurgy 302, Mechanical Engineering 307, 15 credit hours of electrical engineering electives and 9 credit hours of technical electives. The additional requirements are Chemistry 101-102, Mathematics 221, 222, 223, and 301; Physics 201-202, 303-304, 305, 306 and 401-402; and the general education programs of both institutions.

MECHANICAL-AEROSPACE ENGINEERING MAJOR. A basic degree in mechanical-aerospace engineering provides a general background in mathematics and science; specific engineering training in fluid mechanics, properties of materials, stress analysis and thermodynamics; and application of these fundamentals to engineering design. A career in mechanical engineering provides opportunities for the design, analysis and manufacture of machines in the broadest sense. The requirements total 123 credit hours and are distributed as follows:

Engineering 125, 132; Electrical Engineering 314, Engineering Mechanics 212, 301-302, and 305-306; Mechanical and Aerospace Engineering 215-216; 307, 361, 391-392, 441, 442, 445, and 446, and 21 credit hours of approved technical electives. The additional requirements are Chemistry 101-102, Mathematics 221, 222, 223, and 301; Physics 201-202 and 24 credit hours in the general education program.

MATHEMATICS/MECHANICAL AND AEROSPACE ENGINEERING MAJOR. The dual degree program in mathematics/mechanical engineering is designed to prepare students to apply mathematical theory to develop systematic and logical approaches to the analysis of phenomena in mechanical engineering and to the solution of related problems. The combination of a degree in mathematics with one in mechanical engineering should prepare the student for a broader range of technical achievement. The requirements for a major in mathematics/mechanical engineering are as follows:

Mathematics 221, 222, 223, 301, 311, 401, 402; and six hours of approved mathematics electives; Engineering 125, 132; Electrical Engineering 314; Engineering Mechanics 212, 221, 301-302, 305-306; Mechanical and Aerospace Engineering 215-216, 307, 361, 391-392, 441, 445, 446; and 21 credit hours of approved technical electives. In addition, a mathematics/mechanical engineering major must take Chemistry 101-102; Physics 201-202, and 301-302.

PHYSICS/MECHANICAL AND AEROSPACE ENGINEERING MAJOR. The dual degree program in physics/mechanical and aerospace engineering provides additional training in the fundamental sciences upon which mechanical engineering is based. This interdisciplinary program extends the capabilities to the engineer both in technical achievements and research. Opportunities for mechanical engineers are in design development, construction, operation of machinery, and in the generation, transmission and utilization of power. Specific examples of mechanical engineering practice include aircraft, rockets, and space

vehicles; undersea systems; rotating machinery ranging from automobiles to windmills, and thermal devices such as refrigerators or furnaces. A total of 154 hours are required for a major in physics/mechanical and aerospace engineering, distributed as follows:

Physics 201-202, 303-304, 305, 306, 401-402; Engineering 125 and 132; Engineering Mechanics 212, 301, 302, 305 and 306; Mechanical and Aerospace Engineering 215, 216, 307, 361, 391, 441, 442, 445 and 446; Electrical Engineering 314; and 21 hours of technical electives. In addition, a physics/mechanical and aerospace engineering major must take Chemistry 101-102, Mathematics 221, 222, 223, and 301; and satisfy the general education requirements of both institutions.

COURSE DESCRIPTIONS

The engineering courses described below are offered at Delaware State College. (For descriptions of the other engineering courses, see the University of Delaware Bulletin.)

CHEMICAL ENGINEERING

230. INTRODUCTION TO CHEMICAL ENGINEERING ANALYSIS. A study of the techniques of developing quantitative descriptions of physical problems, prediction of system behavior, and comparison of the model predictions with physical reality. Formulation of relevant experiments for model development is stressed, as is the use of model equations for design of engineering processes. Prerequisite: Mathematics 222. Credit, three hours.

231. CHEMICAL ENGINEERING THERMODYNAMICS I. The first law energy balance; the entropy balance; thermodynamic constitutive equations for gases, liquids and solutions; thermodynamic cycles and energy conversion. Prerequisites: Chemical Engineering 230 and Chemistry 303. Credit, three hours.

ELECTRICAL ENGINEERING

202. INTRODUCTION TO DIGITAL SYSTEMS. A unified overview of the interrelationship among the digital representation and processing of information, the analysis and design of combinational and sequential digital networks, and the application of stored program information processors. Two lectures and one 100-minute laboratory period per week. Credit, three hours.

205. LINEAR CIRCUIT THEORY I. Laws of the electric circuit, analysis of DC and AC circuits, network equations, network theorems. Three lectures and one 150-minute laboratory period per week. Prerequisites: Mathematics 222 and Physics 201. Credit, four hours.

ENGINEERING: GRAPHICS AND GENERAL

125. INTRODUCTION TO ENGINEERING. Elementary engineering problems and design which introduce the activities of the major branches of engineering. Beginning FORTRAN IV programming for engineering computations. Credit, two hours.

132. WRITTEN AND GRAPHIC COMMUNICATIONS. Fundamentals of orthographic projection with emphasis on free-hand sketching, including isometric layouts and oblique pictorial representations. Topics in the area of graphic analysis including vector graphics, graphic calculus, and a section devoted to data analysis and the development of empirical equations. One lecture and one 100-minute and one 150-minute laboratory periods per week. Credit, two hours.

ENGINEERING MECHANICS

211. THEORETICAL AND APPLIED MECHANICS: STATICS. Statics of solid and fluid systems; elementary vector algebra and calculus; solutions by equilibrium equations and energy methods. Corequisite: Mathematics 223. Credit, three hours.

212. THEORETICAL AND APPLIED MECHANICS: DYNAMICS. An intermediate level development of kinematics and dynamics of particles, systems of particles, and rigid bodies. Vibrations of machines and structures. Emphasis on solution of engineering problems by force, energy, and momentum methods of analysis. Applications to the dynamics of machines, structures, and vehicles. Prerequisite: Physics 201. Corequisite: Mathematics 223. Credit, three hours.

THE DEPARTMENT OF ENGLISH

Professor: del Tufo

Associate Professors: Goodman, King (Chairman)

Assistant Professors: Golts, *Harris, Kenyatta, Lawson

B. Steward, D. Steward, Tokley

Instructors: Holley,

Mroz, Ressler, Reynolds, Tue

Departmental Assistants: Breasure, Farrow

The role and function of the Department of English at Delaware State College is threefold:

1. The department provides instruction in grammar, composition, speech, and humanities for the general education program;
2. The department offers instruction in language and literature, speech, methods of teaching English, linguistics and language arts for the teacher-education program;
3. The department provides instruction in language and literature, speech, drama, grammar and composition, and linguistics for the liberal arts program.

CURRICULUM OPTIONS IN ENGLISH

ENGLISH MAJOR (NON-TEACHING) All students who select this major must complete the general education program as required of all students (See General Education Requirements). In addition, the following thirty-six (36) hours are required in the major area: English 301-302, 305, 306-307, 311, 402, 403; twelve (12) hours of English electives; twelve (12) hours of a Foreign Language.

ENGLISH MAJOR (TEACHING) All students who select a teaching major in English must complete the general education program as required of all students (see General Education Requirements). In addition, the following thirty-six (36) hours must be completed for the major: English 204, 301-302, 305, 306-307, 311, 402, 403-404; six (6) hours of English electives; twelve (12) hours of a Foreign Language, Education 204, 302, 408, 411, 412; Psychology 201, 204, 302, 316.

ENGLISH MINOR All students who select a minor in English must complete the following requirements: English 301-302, 305, 306-307, 311, and 403.

THEATRE ARTS MINOR All students who select a minor in Theatre Arts must complete the following requirements: English 107, 109, 111, 313 and 318.

COURSE DESCRIPTIONS

ENGLISH (01)

100. WRITING SKILLS. This course is a required course for all students who make unsatisfactory scores on the English placement tests. Emphasis is placed on the development of basic writing skills with a review of grammar and the mechanics of writing. Students are eligible to enroll in English 101 upon completion of the course with a Passing grade accompanied by the teacher's recommendation. No credit.

*Part-time

101. ENGLISH COMPOSITION. This course is designed to develop skills and competence in writing prose compositions, reading, and listening. Problems in logical thought, organization of ideas, and comprehension in reading will receive special attention. (Techniques of the research paper are explored in this course.) Prerequisite: A passing score on the English placement tests or successful completion of English 100. Credit, three hours.

102. BASIC STUDY IN LITERATURE. This course is designed to help students develop an appreciation and understanding of literature. Attention is given to forms, styles, and ideas in selected works of poetry, drama, and short fiction. Students are also encouraged to write critically about literature. The completion of a term paper is a requirement. Prerequisite: English 101. Credit, three hours.

103. BLACK RHETORIC. This course follows the general format of English 101. It is divided into two parts: the rhetoric and the reader. The first part, the rhetoric, stresses an introduction to writing. The second part of the course attempts to stimulate interests and response in students through the reading of essays by black writers ranging from the simple to the formal essay. Prerequisite: A passing score on the English Placement tests or successful completion of English 100. Credit, three hours.

104. BLACK PROSE AND POETRY. The imaginative literature in this course represents the three main genres: stories, plays, poems by black writers, and includes a wide range of styles, techniques, and themes. To encourage concentrated study, critical essays by noted black critics are studied in depth. Prerequisite: English 101 or 103. Credit, three hours.

107. CREATIVE DRAMATICS: This course is designed to aid teachers in the creative facets of learning. Emphasis is placed upon the use of the arts to improve the learning environment. Students take part in story-telling, story-dramatization and pantomime. Credit, three hours.

109. ACTING I. This course is a basic acting course designed to introduce the fundamental skills of performance. Course work includes exercises to develop physical and vocal freedom and performance of scenes and improvisations. Credit, three hours.

111. MOVEMENT AND NON-VERBAL COMMUNICATION. This course is designed to give intensive physical training to achieve strength and control of bodily movement, to explore basic mime techniques as they relate to non-verbal communication and to provide extensive work in theatre games to achieve physical and emotional freedom and stimulate a creative atmosphere. Credit, three hours.

200. SPEECH. In this course the student receives training in the fundamentals of diction and effective oral expression in prepared and extemporaneous informal speeches. Emphasis is placed upon practice in speech and delivery. The student is required to compose and deliver various types of public speeches. Prerequisite: English 101-102 or 103-104. Credit, two hours.

201-202. WORLD LITERATURE. A broad cultural background is sought through a study of the literature and a consideration of the ideas expressed by the great men of letters from ancient Greece through the Renaissance (during the first semester) and from the Renaissance to the twentieth century (second semester). Required of all sophomores. Prerequisite: English 101-102 or 103-104. Credit, three hours each.

203. MODERN BRITISH AND AMERICAN POETRY. This course examines the influences upon and development of twentieth century British and American poetry. Prerequisite: English 101-102. Credit, three hours.

204. PRINCIPLES OF LINGUISTICS. This is an introduction to the scientific study of language with emphasis on the application of modern linguistic science to the teaching of grammar and writing. Credit, three hours.

205. AFRO-AMERICAN LITERATURE I. The aim of this course is to trace the beginning of Afro-American literature from the early plantations era to the modern phase which began with the Great Depression of the 1930's. Prerequisite: English 101-102 or 103-104. Credit, three hours.

206. AFRO-AMERICAN LITERATURE II. This course traces Afro-American writings from the early 1930's, which saw a new concern for social equality between blacks and whites, up to the present day. Prerequisite: English 101-102 or 103-104. Credit, three hours.

210. INTRODUCTION TO FILM. This course examines the art of film and introduces the students to the techniques and styles of representative film-makers. Special emphasis is placed on theories of film and methodology of film criticism as well as social, historic, and artistic relevance. Prerequisite: English 101-102 or English 103-104. Credit, three hours.

211. CREATIVE WRITING. This course examines the art of creative writing. Special attention will be given to the short story, poetry and playwriting. The student is encouraged to improve by constant comparison of his work with the best achievements in fiction and poetry. Prerequisite: English 101-102 or 103-104. Credit, three hours.

214. THE BLACK AMERICAN NOVEL. This course examines the origins, styles, themes and literary techniques of Black novelists in America from 1800 to the present. Works will be studied in relation to the social, historical and political factors which influence them. Prerequisite: English 101-102 or 103-104. Credit, three hours.

217. BLACK DRAMA. This course is a survey of the American Black playwrights' contribution to American drama. Plays are examined for their artistic, historic and social significance. Prerequisite: English 101-102 or 103-104. Credit, three hours.

301-302. ENGLISH LITERATURE. This survey course is designed to increase the student's awareness of the significant trends in English literature, beginning with the Anglo-Saxon period. This course emphasizes the work of the major English writers in relation to the literary movements and ideas of their periods. Credit, three hours each.

303. ENGLISH LITERATURE IN THE EIGHTEENTH CENTURY. This course is a study of the Augustan Age with emphasis upon the reading of representative writers — Defoe, Addison, Steele, Pope, Swift, and Dr. Johnson and his circle. Credit, three hours.

304. THE ROMANTIC PERIOD IN ENGLISH LITERATURE. This course consists of readings in the prose and poetry of Wordsworth, Coleridge, Scott, Byron, Shelly, and Keats, with some attention to critical reactions to their works and to a definition of Romanticism. Credit, three hours.

305. SHAKESPEARE. The aim of this course is to impress upon the student the cultural, historical, and philosophical significance of the works of Shakespeare in relation to modern living. Representative plays from the several literary periods of Shakespeare are studied. Credit, three hours.

306-307. AMERICAN LITERATURE. Significant trends in American literary thought as reflected in the works of the major writers from the Colonial Period to the present are emphasized in this course. Credit, three hours each.

308. BRITISH AND AMERICAN DRAMA. This course is a study of the major figures of British and American drama from the Age of Shakespeare to the twentieth century. Credit, three hours.

309. THE ENGLISH RENAISSANCE. This course is a survey of the literature of the English Renaissance with special study of the major authors: Sidney, Spencer, Shakespeare, Jonson, and Donne. Credit, three hours.

311. ADVANCED COMPOSITION. Emphasis in this course is placed upon extensive practice in effective writing of prose composition. Prerequisites: English 101-102 or 103-104. Credit, three hours.

313. PLAY PRODUCTION. Areas covered in this course include a general introduction to directing, staging, lighting, costuming, makeup and other aspects of educational and recreational drama. Credit, three hours.

314. MODERN DRAMA. This course examines the major playwrights of the twentieth century from Ibsen to Beckett, and traces the development of modern drama. Prerequisites: English 101-102, 201-202 or English 103-104, 205-206. Credit, three hours.

315. JOURNALISM. This course gives basic instruction and practice in news gathering and in writing for publication. Prerequisites: English 101-102 or 103-104. Credit, two hours.

316. AMERICAN LITERATURE OF AFRO-AMERICAN LIFE. An examination of the black American's role in American literature (a) as a creator of the white writer's imagination, (b) as a creator of literature, and (c) as a critical observer of the literary scene. Prerequisites: English 101-102 or 103-104. Credit, three hours.

317. SEMINAR IN GREEK TRAGEDY. This course examines the major works of the three great Greek tragedians: Aeschylus, Sophocles and Euripides. Works are analyzed in relation to the major social, religious and political thrusts of the 5th century, B.C. Prerequisite: English 101-102 or 103-104, 205-206. Credit, three hours.

318. HISTORY OF THE THEATRE. This course emphasizes theatre structure, production techniques, individual artists and movements in the development of theatre in Europe and America. Prerequisite: English 101-102, 201-202 or 103-104, 205-206. Credit, three hours.

319. MODERN NOVEL. This course examines the novel as a genre and explores the development of the novel from James to Pynchon. Prerequisite: English 101-102 or 103-104. Credit, three hours.

321. SEMINAR IN HUGHES, WRIGHT AND BALDWIN. This course examines the major works of these three great Black writers. Close attention is given to their individual styles and techniques. Works are also studied in relation to the social and historical forces which influence them. Prerequisite: English 101-102, 201-202 or 103-104, 205-206. Credit, three hours.

401. VICTORIAN LITERATURE. The aim of this course is to present selected readings of the major poets of the period; Tennyson, Browning, Rossetti, and their contemporaries against the background of Victorian thought. Credit, three hours.

402. CONTEMPORARY LITERATURE. This course is a study of British and American writers of fiction and poetry since 1900, with emphasis on the main currents of thought in the twentieth century. Credit, three hours.

403. SENIOR SEMINAR. The seminar embraces a correlation of the content of the various courses by review of periods, literary trends, and significant authors of English, American, and continental literature. Credit, three hours.

404. TEACHING ENGLISH IN THE HIGH SCHOOL. This course is designed to promote effective and knowledgeable teaching of composition and literature in the high school. This course covers the content to be taught, the insights needed by the teacher, and various methods recommended in teaching the subject. Credit, three hours.

THE DEPARTMENT OF FOREIGN LANGUAGES

Assistant Professors: Abosch, Georges (Acting Chairman), deGrasse

Instructors: Phillips, Tartar, Toscano

The objectives of the Foreign Language Department are to provide students with a general knowledge of foreign cultures and literatures; to attempt to develop in the student the ability to speak, read and write correctly the chosen language; and to afford an opportunity for students to obtain a foundation for professional study.

Students in this department are encouraged to minor in a second language.

CURRICULUM IN FOREIGN LANGUAGES

FRENCH OR SPANISH MAJOR All students who select a major within the foreign language department must complete the general education program as

required of all students (See General Education Requirements). In addition, for a major in French or Spanish, thirty (30) ours are required: 101-102, 201-202, 301-302, 303, 304, 305, 306. Electives are French 401, 402; Spanish 307, 308.

Language majors taking 101-102 may count the six hours toward the thirty-hour requirement. Majors passing the proficiency examination and waiving 101-102 must take six additional hours in their foreign language.

Language majors seeking state certification to teach in secondary schools must take the following courses: Psychology 201, 302, 316; Education 204, 405, 411, 412; Foreign Language 409, and Teaching English as a second language.

FRENCH OR SPANISH MINOR For a minor in French or Spanish, eighteen hours are required with the following course numbers and sequence: 101-102, 201-202, and 303-304.

COURSE DESCRIPTIONS

FRENCH (08)

101-102. ELEMENTARY FRENCH. An intensive oral-aural approach to French for students with no previous training in the language. Abundant practice in hearing, understanding and speaking French is provided with basic grammar integrated into the learning process. Laboratory attendance is required at least three hours per week. Credit, three hours each.

201-202. INTERMEDIATE FRENCH. This course is designed to continue the development of the audio-lingual skills. Grammar will consist of the more advanced levels of syntax, and students will be introduced to French Culture. Laboratory attendance is required at least three hours per week. Prerequisite: French 101-102 or satisfactory completion of a standard examination covering Elementary French. Credit, three hours each.

222. FRENCH CONVERSATION. Practical use of the language leading toward fluency and correctness in speaking. Required of all teaching majors. Prerequisite: 201 or 202 and consent of the instructor. Credit, three hours.

301. SURVEY OF FRENCH LITERATURE. Renaissance through the Eighteenth Century. Prerequisite: French 201-202. Credit, three hours.

302. SURVEY OF FRENCH LITERATURE. From 1800 to 1930. Prerequisite: French 201-202. Credit, three hours.

303. ADVANCED FRENCH GRAMMAR AND COMPOSITION. Detailed study of French syntax, with special stress on vocabulary building, idioms and literary styles. Class is conducted partly in French. Laboratory attendance is required at least three hours per week. Prerequisite: French 201-202. Credit, three hours.

304. FRENCH DICTION AND CONVERSATION. Drill on French pronunciation and intonation. Aural understanding and oral composition are stressed. Emphasis is on fluency and included are prepared and impromptu group discussions. Class conducted in French. Laboratory attendance is required at least three hours per week. Prerequisite: Twelve (12) semester hours in French. Credit, three hours.

305. FRENCH CIVILIZATION. Systematic study of the origin and development of the French nation and its cultural role in human history from the points of view of geography, industry, social and political institutions. Class conducted in French. Prerequisite: Twelve (12) semester hours of French. Credit, three hours.

306. SEVENTEENTH CENTURY FRENCH LITERATURE. Great writers of France's Golden Age. Course conducted in French. Prerequisite: French 301-302. Credit, three hours.

399. INDEPENDENT STUDY IN FOREIGN LANGUAGES (IFSL). Primarily for advanced students who will work with individual instructor upon permission. Intended to go beyond existing courses. Prerequisite: Consent of the instructor and approval of the chairperson. Credit, three hours.

400. ASPECTS OF FRENCH CULTURE IN THE AMERICAS. This course is a survey of French involvements in the historical development of the new world. It covers the French participation and influence in the life of its old colonies; Canada Haiti, Louisians, etc.; the French heritage in terms of ideas, religion, folklore; languages such as the Patois, the Creole, the "Jwal", etc.; and French influence and culture in South America. This course also explores the contributions of important French families to American culture. It may be used as an elective in both the French and the History curricula.

401. THE FRENCH NOVEL. Representative works of authors, such as Diderot, Balzac, Stendhal, Flaubert, Zola, Gide, and Proust. Course conducted in French. Prerequisite: French 301-302. Credit, three hours.

402. FRENCH DRAMA. Analysis of plays by Corneille, Moliere, Racine, Marivaux, Hugo, and Dumas fils. Prerequisite: French 302 or consent of the instructor. Course conducted in French. Credit, three hours.

409. METHODS AND MATERIALS OF TEACHING FRENCH. Analysis of the methods of teaching modern foreign languages including recent developments in this field, and notions of phonetics and applied linguistics. Examination of texts and classroom procedures discussed. Language laboratory attendance is required at least three hours per week. Prerequisite: Twelve (12) semester hours of French. Credit, three hours.

GERMAN (09)

101-102. ELEMENTARY GERMAN. Study of the fundamentals of German. Drill in pronunciation, vocabulary building, reading and speaking simple German. Laboratory attendance is required at least three hours per week. Credit, three hours each.

201-202. INTERMEDIATE GERMAN. A review of grammar and an introduction to German literature. Continued practice in speaking and writing. Laboratory attendance is required at least three hours per week. Prerequisite: German 101-102 or the satisfactory completion of a standard examination covering Elementary German. Credit, three hours each.

300. SCIENTIFIC GERMAN. Oral and written exercises and the study of technical and scientific selections with attention to their special vocabularies. Laboratory attendance is required at least three hours per week. Prerequisite: Twelve (12) semester hours of German. Credit, three hours.

302. SURVEY OF GERMAN LITERATURE. Continuation of German 301. Class conducted partly in German. Prerequisite: Twelve (12) semester hours of German. Credit, three hours.

303. ADVANCED GERMAN GRAMMAR AND CONVERSATION. A detailed study of German syntax. Free composition and idiomatics. Class conducted partly in German. Laboratory attendance is required at least three hours per week. Prerequisite: Twelve (12) semester hours of German. Credit, three hours.

304. GERMAN CONVERSATION. Practice in speaking German. Emphasis on aural understanding and oral composition. Class conducted in German. Laboratory attendance is required at least three hours per week. Prerequisite: Twelve (12) semester hours of German. Credit, three hours.

305-306. HISTORY OF GERMAN CIVILIZATION. Designed to trace the development of the German nation, presented from the points of view of geography, industry, science, literature and the arts, and to show the impact of its social and political institutions on world history. Class conducted partly in German. Prerequisite: Twelve (12) semester hours of German. Credit, three hours each.

307. MAJOR DRAMA OF GERMAN LITERATURE. The study of dramatic content and form by means of selections from such authors as: Schiller, Lessing, Goethe, Grillparzer, Hebbel, Hauptmann, et al. Class conducted in German. Prerequisite: Twelve (12) semester hours of German. Credit, three hours.

409. METHODS AND MATERIALS OF TEACHING GERMAN. Analysis of the methods of teaching modern foreign languages including recent developments in this field, and notions of phonetics and applied linguistics. Examination of texts and classroom procedures discussed. Language laboratory attendance is required at least three hours per week. Prerequisite: Twelve (12) semester hours of German. Credit, three hours.

SPANISH (10)

101-102. ELEMENTARY SPANISH. A course for beginners designed to develop aural ability, oral facility and reading comprehension. Laboratory attendance is required at least three hours per week. Credit, three hours each.

201-202. INTERMEDIATE SPANISH. Review of grammar and pronunciation. Reading of several texts of average difficulty. Laboratory attendance is required at least three hours per week. Prerequisite: Spanish 101-102 or satisfactory completion of standard examination covering Elementary Spanish. Credit, three hours each.

222. SPANISH CONVERSATION. Practical use of the language leading toward fluency and correctness in speaking. Required of teaching majors. Prerequisite: 201 or 202 and consent of the instructor. Credit, three hours.

301. SURVEY OF SPANISH LITERATURE TO 1700. Prerequisite: Twelve (12) semester hours of Spanish. Credit, three hours.

302. SURVEY OF SPANISH LITERATURE FROM 1700. Prerequisite: Twelve (12) semester hours of Spanish. Credit, three hours.

303. ADVANCED SPANISH GRAMMAR AND COMPOSITION. Detailed study of Spanish syntax. Designed to develop greater proficiency in writing Spanish. Practice in Spanish mechanics and in writing on selected topics. Class conducted in Spanish. Laboratory attendance is required at least three hours per week. Prerequisite: Twelve (12) semester hours of Spanish. Credit, three hours.

304. SPANISH DICTION AND CONVERSATION. Practice in aural and oral understanding, pronunciation and practical use of the language. Class conducted in Spanish. Laboratory attendance is required at least three hours per week. Prerequisite: Twelve (12) semester hours of Spanish. Credit, three hours.

305. SPANISH CIVILIZATION. A detailed study of the history and development of the Spanish nation, with emphasis upon geography, cultural institutions, literature, and art. Class conducted in Spanish. Prerequisite: Twelve (12) semester hours of Spanish. Credit, three hours.

306. LATIN AMERICAN CIVILIZATION. An intensive study of the historical, cultural, political, and economic elements contributing to the development of Spanish and Latin America. Class conducted in Spanish. Prerequisite: Twelve (12) semester hours of Spanish. Credit, three hours.

307. LATIN AMERICAN LITERATURE. A review of the poetry, drama, and novel from 1850 through the contemporary period, including discussions on the modernist movement and Ruben Dario. Class conducted in Spanish. Prerequisite: Spanish 301-302. Credit, three hours.

308. SPANISH LITERATURE OF THE GOLDEN AGE. A study of some of the representative authors of the sixteenth and seventeenth centuries. Lectures, reading and individual reports. Class conducted in Spanish. Prerequisite: Spanish 301-302. Credit, three hours.

322. TEACHING ENGLISH AS A SECOND LANGUAGE (TESL). Students will assist in the planning, implementation, teaching, and evaluation of an actual class in how to teach English to people who have lived in the U.S. for several years as well as for those who have just arrived. There will be small group instruction in English grammar, accurate pronunciation, and vocabulary development.

399. INDEPENDENT STUDY IN FOREIGN LANGUAGES (ISFL). Primarily for advanced students who will work with individual instructor upon permission. Intended to go beyond existing courses. Prerequisite: Consent of the instructor and approval of the chairperson. Credit, three hours.

409. METHODS AND MATERIALS OF TEACHING SPANISH. Analysis of the methods of teaching modern foreign language including recent developments in this field, and notions of phonetics and applied linguistics. Examination of texts and classroom procedures discussed. Language laboratory attendance is required at least three hours per week. Prerequisite: Twelve (12) semester hours of Spanish. Credit, three hours.

460. A HISTORY OF THE SPANISH LANGUAGE. This course will cover the historical, cultural, and linguistic background of the Spanish language. This semester will start with pre-Latin languages and pre-Roman time up to the influence of modern languages and cultures. Prerequisite: Spanish 303 and 304 or teacher's approval.

ITALIAN (11)

101. ELEMENTARY ITALIAN. A course for beginners designed for those interested in a direct approach of the language for communication purpose. The course will start with the very basic and will progress to make the student able to understand it as a language and as a culture. Credit, three hours. Prerequisite: None.

THE DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, AND RECREATION

Professor: Doherty

Associate Professor: George, McKenzie

Assistant Professors: Burden, Cooper (Chairperson), Williams

Instructors: Clark, Emery, Russell, Wyche

Departmental Assistant: McGuire

The Department of Health, Physical Education and Recreation provides those elements of instruction and leadership necessary to assist the student in achieving aims relative to gainful employment in teaching and recreation. It further provides facilities and instruction in those areas that are concerned with physical development and well-being, including specific health instruction and opportunity to engage in physical activities as organized groups or as individuals. The department is available for such community services as its facilities and personnel can supply.

The curriculum in health, physical education and recreation offers the following areas of concentration: Health and Physical Education, Health Education, and Recreation.

Non-major students who are veterans or over 27 years of age may be exempted from Physical Education 100. To fulfill their requirement, they may elect to take a minimum of two courses in physical education that are scheduled at the 100 level.

Majors will be required to purchase warm-ups in red and blue (the school colors) or blue and white. All other students will be required to have the uniform prescribed for each course.

CURRICULUM OPTIONS IN HEALTH, PHYSICAL EDUCATION AND RECREATION

HEALTH AND PHYSICAL EDUCATION MAJOR Students who select the Health and Physical Education major must complete the general education program as required of all students (See General Education Requirements). In addition, the following courses are required: Physical Education 205, 206, 207 (401), 208 (404), 209 (315), 211 (301), 301, 302, 303, 304, 309, 310, 311, 313, 314, 316, 322 (308), 402, 403, 405, 409; Biology 204; Education 204, 312, 411, 412; Health Education 101, 307 (404), 308, 320 (412), 415; Home Economics 301; Psychology 316; Electives: three hours.

HEALTH EDUCATION MAJOR Students who select the Health Education major must complete the general education program as required of all students (See General Education Requirements). In addition, the following courses are required: Health Education 101, 204, 216, 307 (404), 308, 320 (412), 413, 415; Physical Education 304, 310, 313, 402, 403, 409; Biology 204; Education 204, 309, 312, 411, 412; Home Economics 301; Psychology 208, 316; Sociology 201, 401; Chemistry 101, 102; Electives: five hours.

RECREATION MAJOR Majors in this area must satisfy the general education program as required of all students (See General Education Requirements). In addition, the following courses are required: Physical Education 204, 205, 206, 209, (315), 211, 301, 302, 303, 304, 306, 309, 310, 311, 313, 314, 322 (308), 402, 403, 407, 416; Biology 204; Health Education 101, 307 (404), 320 (412); Psychology 316; Sociology 201, 202, 301, 401; Education 204, 312; Music 201; Art 102A, 201; Natural Resources 301; Electives: three hours.

COURSE DESCRIPTIONS

HEALTH EDUCATION (15)

101. PERSONAL HYGIENE. This course provides opportunity for study in personal and community problems with emphasis placed upon mental and emotional health, medical self help, family hygiene, the use of alcohol, tobacco, and narcotics, venereal disease, and general health problems in adult life. Credit, two hours.

204. PRINCIPLES OF HEALTH EDUCATION. An introduction to the broad fields of health education. Emphasis on principles and practices of improving health behavior by school and community agencies. Credit, two hours.

216. PRINCIPLES OF COMMUNITY HEALTH. A study of scientific facts and desirable principles and practices for healthful living in the community. Coverage is given to historical and modern efforts to meet health needs in the community. Credit, two hours.

307. (404) FIRST AID AND ATHLETIC INJURIES. Materials of the standard Red Cross courses and treatment and prevention of injuries in athletics are covered. Credit, two hours.

308. METHODS AND MATERIALS IN ELEMENTARY HEALTH EDUCATION. Methods and materials in teaching Health Education by direct and indirect methods: correlation and integration of health instruction, teaching units, audio-visual aids, and health tests. Credit, three hours.

320. (412) SAFETY EDUCATION. Methods and materials as they relate to health and safety education in the elementary, junior, and senior high schools. Credit, two hours.

413. PUBLIC HEALTH EDUCATION. Philosophy, development, organization and legal aspects of public health in the United States. Disease prevention and control, health education and other functions and activities of official health departments, voluntary agencies, and others engaged in professional health work. Credit, two hours.

415. HEALTH SCIENCE. This course offers an overview of the individual's attitudes towards mental health, stimulants and depressants, human sexuality, consumer health and group dynamics. Guest lecturers will provide specific expertise. Credit, three hours.

461. DRIVER AND TRAFFIC SAFETY EDUCATION. Driver and Traffic Safety Education is a (4) four hour course designed for Junior and Senior level students, who have been taught basic methods of teaching in their major fields. These students may be from any department, since driver education programs employ teachers from all majors. The student should hold a valid driver's license. Students should also be competent in handling an automobile.

Upon completion of the initial theoretical phase of training, students will be responsible for teaching a non-driver in car as the lab phase of their training. A \$12.00 lab fee is required of non-drivers as well as students in training. Credit, four hours.

PHYSICAL EDUCATION (16)

100. PHYSICAL EDUCATION ORIENTATION. A course designed to orient the student to the purposes of physical education. The course will include appraisal of motor skills, fitness, fundamental movements and team sports. Credit, one hour.

103. FUNDAMENTALS OF ANGLING. Skills, techniques and terminology of angling. Prerequisite: Physical Education 100. Credit, one hour.

106. FUNDAMENTALS OF BASKETBALL AND VOLLEYBALL. Skills, rules, strategies, and terminology of basketball and volleyball. Prerequisite: Physical Education 100. Credit, one hour.

107. FUNDAMENTALS OF GYMNASTICS AND TUMBLING. A course designed to teach the skills of beginning and intermediate gymnastics and tumbling activities. Prerequisite: Physical Education 100. Credit, one hour.
Materials of teaching physical education in elementary schools. Credit, three hours: (Elementary Education Majors)

109. FUNDAMENTALS OF TOUCH FOOTBALL AND SOCCER (FALL ONLY). Skills, rules, strategies and terminology of touch football and soccer. Prerequisite: Physical Education 100. Credit, one hour.

110. BEGINNING SWIMMING. Basic skills in swimming and non-swimming rescues. Prerequisite: Physical Education 100. Credit, one hour.

111. FUNDAMENTALS OF WEIGHT TRAINING. Skills, techniques, terminology, and practice of weight training. Prerequisite: Physical Education 100. Credit, one hour.

112. FUNDAMENTALS OF BOWLING. Skills, rules, techniques, and terminology of bowling. Prerequisite: Physical Education 100. Course fee \$8.00. Credit, one hour.

113. FUNDAMENTALS OF BADMINTON AND ARCHERY. Skills, strategies, techniques, rules, and terminology of badminton and archery. Prerequisite: Physical Education 100. Credit, one hour.

114. FUNDAMENTALS OF FOLK AND SQUARE DANCES. Skills, techniques, and basic folk and square dance patterns. Prerequisite: Physical Education 100. Credit, one hour.

115. FUNDAMENTALS OF MODERN DANCE. Skills, techniques, and basic patterns of movement of modern dance. Prerequisite: Physical Education 100. Credit, one hour.

116. FUNDAMENTALS OF GOLF. Skills, rules, techniques, and terminology of golf. Prerequisite: Physical Education 100. Credit, one hour.

117. FUNDAMENTALS OF FIELD HOCKEY, SOCCER AND SPEEDBALL. (FALL ONLY). Skills, terminology, techniques, rules, and strategies of field hockey, soccer, and speedball. Prerequisite: Physical Education 100. Credit, one hour.

118. FUNDAMENTALS OF SKATING. (BEGINNING) Terminology, balance, and skill techniques of individual and partner skating. Prerequisite: Physical Education 100. Course fee \$8.00. Credit, one hour.

119. FUNDAMENTALS OF FENCING. Rules, skills, techniques, and terminology of fencing. Prerequisite: Physical Education 100. Credit, one hour.

120. FUNDAMENTALS OF TENNIS. Skills, rules, techniques, and terminology of tennis. Prerequisite: Physical Education 100. Credit, one hour.

125-126. MODIFIED PHYSICAL EDUCATION. Activities suited to each student's individual needs and capacities. The activities consist of individual exercises, and instruction and participation in individual and dual sports of a modified type. Physician certification required and referral of instructor. Credit, one hour for each course.

204. METHODS AND MATERIALS IN RECREATION. Treating recreational activity and the development of various recreational programs. Prerequisite: four hours of physical education. Credit, two hours.

205. INTERMEDIATE SWIMMING. Emphasis on the development of four basic strokes (crawl, side, breast and elementary back). The American Red Cross basic life saving skills will be taught. Credit, one hour.

206. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION. Historical and philosophical treatment of principles and objectives in physical education. Credit, three hours.

207. PHYSICAL EDUCATION SKILLS. Coaching and officiating football. Credit, one hour.

207. PHYSICAL EDUCATION SKILLS. Coaching and officiating field hockey and soccer. Credit, one hour.

208. PHYSICAL EDUCATION SKILLS. Coaching and officiating baseball. Credit, one hour.

208. PHYSICAL EDUCATION SKILLS. Coaching and officiating softball. Credit, one hour.

209. PHYSICAL EDUCATION SKILLS. Coaching and officiating basketball. Credit, one hour.

211. (301) INDIVIDUAL AND DUAL ACTIVITIES. Advanced techniques and a presentation of teaching methods of activities in which one or two persons may participate. Archery, badminton, tennis, table tennis, wrestling, shuffleboard are included. Credit, one hour.

301. METHODS AND MATERIALS IN ELEMENTARY PHYSICAL EDUCATION. Concepts and methods and materials of teaching physical education to elementary or adolescent students with emphasis on instruction, resource materials, directed observation and participation. Prerequisite: Physical Education 206. Credit, three hours. (Physical Education Majors)

302. METHODS AND MATERIALS IN GYMNASTICS AND TUMBLING. Theory and practice: instruction in teaching techniques of conditioning exercises, gymnastics and tumbling exercises. Credit, one hour.

303. TEACHING PHYSICAL EDUCATION IN ELEMENTARY SCHOOLS. Methods and materials of teaching physical education in elementary schools. Credit, three hours. (Elementary Education Majors)

304. METHODS AND MATERIALS IN SECONDARY HEALTH AND PHYSICAL EDUCATION. A study of methods, materials, special techniques, directed observation and participation in teaching health and physical education in the secondary schools. Prerequisite: Physical Education 206. Credit, three hours.

306. ADVANCED LIFE SAVING AND ADVANCED SWIMMING. A course designed to develop skills in nine swimming strokes and Advanced Life Saving skills. American Red Cross certificates are awarded to candidates who successfully meet Red Cross standards. Credit, one hour.

309. FOUNDATIONS OF COMMUNITY RECREATION. Introductory course in recreation including philosophy, theory, areas and facilities, publicity, legal status, personnel, and finance. Prerequisite: two hours of physical education. Credit, two hours.

310. MEASUREMENT IN HEALTH AND PHYSICAL EDUCATION. Methods of measurement and evaluation applied to health and physical education. Credit, three hours.

311. METHODS AND MATERIALS IN RHYTHMICAL ACTIVITIES. Basic skills, teaching techniques, materials, and program organization of dance activities in physical education and recreation. Settings including folk, square, and social dance. Credit, one hour.

313. HUMAN ANATOMY. Cross structure of the organs and organ systems of man. Three lectures and one laboratory period per week. Prerequisite: Biology 101 and 102. Credit, four hours.

314. KINESIOLOGY. The study and the analysis of human motion. Prerequisites: Biology 101 and 102 and Physical Education 313. Credit, three hours.

316. PHYSICAL EDUCATION SKILLS. Coaching and officiating wrestling. Credit, one hour.

322. (308) PHYSICAL EDUCATION SKILLS. Coaching and officiating track. Credit, one hour.

402. HEALTH, PHYSICAL EDUCATION AND RECREATION SEMINAR. A study of current problems in health and physical education and recreation in the elementary, junior, and senior high schools. Prerequisite: Education 412. Credit, one hour.

403. ORGANIZATION AND ADMINISTRATION OF HEALTH, PHYSICAL EDUCATION, AND RECREATION. A study of the organization and administration of programs in Physical Education, Health and Recreation. Procedures and practices in the solutions of problems facing the director, teacher and coach. Prerequisite: Physical Education 206. Credit, three hours.

405. PHYSIOLOGY OF EXERCISE. The study of those changes which accompany muscular activity. Emphasis given to the fatigue cycle, physical fitness, the chronic effects of exercise, and training methods. Three lectures and one laboratory period per week. Prerequisites: Biology 101 and 102 and 204; and Physical Education 313 and 314. Credit, four hours.

406. PHYSICAL EDUCATION SKILLS. Techniques in soccer and speedball. Credit, one hour.

407. CAMPING. Theory and practice in the use of camping skills. Credit, two hours.

409. ADAPTIVES. A course designed to give students training in alleviating the usual physical strength and motor inefficiencies and the adapting of physical education activities for handicapped individuals. Credit, two hours.

410. WATER SAFETY INSTRUCTION. Methods of teaching swimming from the beginning through the Advanced Life Saving levels. An American Red Cross Certificate is awarded to candidates who successfully meet Red Cross Standards. Prerequisite: Students must be at least seventeen years of age and have the skills to swim 400 yards demonstrating nine different strokes and hold a current ARC (Advanced Life Saving Certificate). Credit, one hour.

416. RECREATIONAL PRACTICUM. Off-campus field work for Recreation majors. Actual practice in playground supervision, "Y" programs, community centers, pools, etc. Credit, five hours.

THE DEPARTMENT OF HISTORY AND POLITICAL SCIENCE

Professors: Flayhart, Hartnett (Chairman)

Associate Professors: * Damuah, Gardner, Pu

Assistant Professors: Spina, Valle, Akuchu

Instructors: Lauter, Ramsey

The objectives of the Department of History and Political Science are to provide service courses endorsed in the curriculum of general education, to prepare students to teach history and social science on the secondary level, and to prepare students for graduate study in history and political science.

CURRICULUM OPTIONS IN HISTORY AND POLITICAL SCIENCE

HISTORY MAJOR (NON-TEACHING) All students who select a major within the Department of History and Political Science must complete the general education program as required of all students (See General Education Requirements). For a major in History, thirty-six (36) semester hours of credit are required. (Any three-hour history course chosen to fulfill general education

* Sabbatical Leave

requirements can be used to fulfill the requirements of the major.) These must include History 101, 102, 201, 202. In addition, the student must choose a minimum of twenty-four hours of history courses at the 300 or 400 level, completing at least six hours of American History, six hours of European history, six hours in Asian, African or Latin-American history, and six hours of electives. (This excludes 445.) *Foreign Language 101-102 are required.

SOCIAL STUDIES MAJOR (TEACHING) All students who select this major within the Department of History and Political Science must complete the general education program as required of all students (See General Education Requirements). Students desiring to teach Social Studies on the secondary level must complete twenty-one (21) ours of history (This may include the 3 hours of history contained in the General Education Program). History 101, 102, 201 or 107, 202 or 108, 322, 445 and one upper level history elective are specifically required. In addition, the prospective teacher must take Education 312, 405, 408, 411, and 412; Political Science 211; Psychology 201, 204 and 302; Economics 201; Geography 101; Sociology 201 and 205 or 206; Home Economics 309; and three Social Science upper level electives.

MINORS

HISTORY MINOR For a minor in history, eighteen (18) semester hours are required as follows: History 322, 201 and twelve additional hours of which nine hours must be at or above the 300 level with at least three hours each in foreign and American history (excluding History 445).

POLITICAL SCIENCE MINOR For a minor in political science, fifteen (15) hours are required as follows: Political Science 103, 211, and nine additional hours.

*A history major who makes a score of 560 or higher on the CEEB Achievement Test in the foreign language prescribed in the curriculum option, either prior to entering Delaware State College or during the freshman or sophomore year at the college, will be considered to have satisfied the foreign language requirement for the baccalaureate degree in history.

COURSE DESCRIPTIONS

GEOGRAPHY (32)

101. HUMAN GEOGRAPHY. A course concerned with the relationship between man and land with changes brought about through the growth of applied science. Credit, three hours.

103. URBAN GEOGRAPHY. A study of the geographical factors which have helped to produce cities of the world and the impact of cities on the larger society. Credit, three hours.

HISTORY (34)

101. WORLD CIVILIZATION TO THE EIGHTEENTH CENTURY. A survey of the growth of the great cultures from ancient times to the 18th century. Credit, three hours.

102. WORLD CIVILIZATION FROM THE EIGHTEENTH CENTURY. A survey of the growth of the great cultures of the modern world from the 18th century to the present. The major emphasis of the course is on the trends and developments of the 20th century. Credit, three hours.

104. HISTORY AND GOVERNMENT OF DELAWARE. A survey course of the history and government of Delaware. Credit, one hour.

107. AFRO-AMERICAN EXPERIENCE TO 1860. A historical and analytical study of black Americans in the pre-Civil War era, including slavery, abolition, and protest. Credit, three hours.

108. RECENT BLACK EXPERIENCE. An interpretation of the institutional forces which molded modern American life for blacks, protest movements, and the contributions of blacks to American life. Credit, three hours.

201. AMERICAN CIVILIZATION TO 1865. A course that covers the period from 1492 to the close of the Civil War. Cultural and economic developments are given adequate emphasis. Credit, three hours.

202. AMERICAN CIVILIZATION FROM 1865. A study that concentrates on the United States from 1865 to the present with emphasis on the trends and developments of the 20th century. Credit, three hours.

300. HISTORY OF DELAWARE. The development of Delaware from colonial times to the present—the land, the people, the culture, the institutions. Resources of the state will be used and special projects will enable the students to play a part in preserving the rich heritage of the state. Credit, three hours.

301. ENGLAND TO 1688. The founding of the English National State: its political, economic, and cultural growth as the background of further expansion. Credit, three hours.

302. ENGLAND AND THE BRITISH COMMONWEALTH FROM 1688. Political, economic and cultural growth of modern England and the Commonwealth. Credit, three hours.

303. COLONIAL AMERICA. A study of the settlement and colonization of North America, the American Revolution, and the formation of the national government, with emphasis on the cultural, economic, and political influences of the period. Credit, three hours.

306. HISTORY OF EAST ASIA. A history of China as the basis of East Asian civilization, including Korea, Japan, and neighboring regions and/or states. Course will cover approximately 3000 B.C. to 1600 A.D. Credit, three hours.

307. MODERN EAST ASIA. A history of China and Japan since 1600. The course will emphasize the interaction between national cultures and western expansion as well as East Asia's position in the Third World and global affairs since World War II. Credit, three hours.

308. DIPLOMATIC HISTORY OF THE UNITED STATES. A history of American diplomacy from the Revolutionary War to 1898, with attention to domestic and foreign influences. Credit, three hours.

309. DIPLOMATIC HISTORY OF THE UNITED STATES. A continuation of 308 covering events since 1898. Special attention to domestic and foreign influences. Credit, three hours.

311. URBAN AMERICA. The evolution of the city from colonial times to the present; the forces that shaped it; its impact on American life; its challenge to modern Americans. Credit, three hours.

313. SPANISH AMERICA TO 1824. The history of Latin America from pre-Columbian times through the wars of independence. Credit, three hours.

314. SPANISH AMERICA SINCE 1824. The history of Latin America since independence, with special emphasis on conditions today, including the relations of Latin America with the United States and the rest of the world. Credit, three hours.

315. AFRICAN HISTORY TO 1884. The history of Africa from earliest times to the Berlin Conference which signaled the division of Africa by the European powers. Credit, three hours.

316. AFRICAN HISTORY SINCE 1884. The history of colonialism in Africa, the movement toward independence, and conditions in selected countries since independence. Credit, three hours.

319. BARBARIAN EUROPEAN HISTORY (400-1000). A study in depth of the great migrations which brought the disintegration of the Western Roman Empire, the creation of new states in Europe and the Mediterranean, the rise of Islam, and the Viking invasions. Credit, three hours.

320. BIRTH OF EUROPE (1000-1500). A study of the development of overseas expansion. Particular attention will be given to the rise of France, the reconquest of the Iberian Peninsula, the Crusades, and the history of Muscovite Russia. Credit, three hours.

321. EARLY MODERN EUROPE (1500-1815). A study of those forces which contributed to the formation of modern Europe: the growth of the nation-state; the Reformation; the expansion of trade; and the revolutions of the seventeenth and eighteenth centuries. Credit, three hours.

322. MODERN EUROPE. A survey of the principal cultural, economic, and political developments in Europe since 1815 and an introduction to recent historical scholarship. Credit, three hours.

331. HISTORY OF RUSSIA TO 1825. The growth of Russian civilization from Slavic settlements in Europe, its expansion into East Asia and the beginnings of modernization. Credit, three hours.

332. HISTORY OF RUSSIA SINCE 1825. Political, economic and intellectual movements in the nineteenth century that culminated in the founding and growth of the Soviet Union as a present day super power. Credit, three hours.

344. INDEPENDENT STUDY. The student will study intensively a selected topic within a historical era under the guidance of a departmental member. Course requirements include regular conferences, reading assignments, and a written report. Prerequisite: consent of the instructor and approval by the Chairman. Credit, three or four hours.

403. THE CIVIL WAR AND THE EMERGENCE OF MODERN AMERICA. An intensive study of the impact of the Civil War and its consequences upon American civilization. Credit, three hours.

404. SEMINAR IN HISTORY. An introduction of historiography, methodology and the historical profession. Individual research problems in a field of special interest are studied to develop understanding, appreciation, and skill in handling historical materials. Prerequisite: Sophomore status. Credit, three hours.

413. HISTORY OF BRAZIL. A study in depth of the history and culture of this important and distinctive country in South America. Credit, three hours.

445. TEACHING HISTORY AND SOCIAL SCIENCES IN SECONDARY SCHOOLS. Instruction in current methods, materials, and appropriate activities for effective teaching of social sciences in secondary schools—including preparation of units and projects, demonstrations, visits to schools, and discussions on special problems in teaching social sciences. Prerequisite: Junior standing. Credit, three hours.

461. SEMINAR IN AMERICAN HISTORY. Credit, three hours.

462. SEMINAR IN EUROPEAN HISTORY. Credit, three hours.

463. SEMINAR IN LATIN AMERICAN HISTORY. Credit, three hours.

464. SEMINAR IN ASIAN HISTORY. Credit three hours.

465. SEMINAR IN AFRICAN HISTORY. Credit, three hours.

466. SEMINAR IN BLACK STUDIES. Credit, three hours.

The list of seminar classes each semester will show the specific topic to be covered. Examples: Seminar in American History—Immigration in America.

POLITICAL SCIENCE (33)

103. INTRODUCTION TO POLITICAL SCIENCE A study of how groups and individuals influence the distribution of governmental resources in different political systems. Credit, three hours.

211. UNITED STATES NATIONAL GOVERNMENT An assessment of the structure and operation of the American political system at the national level with special emphasis on the Congress, the Presidency and the Supreme Court. Credit, three hours.

212. AMERICAN STATE AND LOCAL GOVERNMENT A comparative study of government and politics within the fifty states with special emphasis on Delaware. Credit, three hours.

221. COMPARATIVE POLITICS A study of democratic, authoritarian, communist and developing political systems in both an historical and contemporary context. Credit, three hours.

241. AMERICAN FOREIGN POLICY An assessment of the various governmental and nongovernmental factors that influence the formulation of United States foreign policy. Credit, three hours.

242. INTERNATIONAL POLITICS An investigation of the contemporary international system and how influence is exerted in the pursuit of national objectives. Credit, three hours.

330. FIELD WORK IN POLITICAL SCIENCE A supervised experience designed to give the student firsthand knowledge of some aspects of political behavior. Permission of the instructor required. Credit, three hours.

400. INDEPENDENT STUDY IN POLITICAL SCIENCE The student will study intensively a selected topic within the field of political affairs under the guidance of a department member. Permission of the instructor required. Credit, three hours.

466. SEMINAR IN POLITICAL SCIENCE A specific topic will be developed and publicized at registration each semester this course is offered. Credit, three hours.

470. POLITICAL SCIENCE INTERNSHIP Under this program student interns will work as legislative assistants for a United States Congressman in Washington, D.C. The Internship is taken in conjunction with two political science reading courses which gives the student fifteen credit hours and full-time status. Interns are under the supervision of a faculty coordinator while in Washington. Students interested in this program should consult with a member of the Congressional Internship Selection Committee. Credit, nine hours.

THE DEPARTMENT OF HOME ECONOMICS

Professor: Adams (Chairman)

Assistant Professors: Stevenson, Bunch

Instructor: Jarrel

Departmental Assistant: Bailey

The Department of Home Economics offers programs designed to educate people for home and family life and for careers which serve the home, family and community. Students are also prepared for graduate study and research in home economics and related areas. The objectives of the department are to: (1) assist students in developing a sound and satisfying philosophy of home economics based upon an understanding of the history of the field and knowledge of contemporary society; (2) provide a general cultural program based on needs and interests of students enrolled in home economics; (3) educate for family life and citizenship; (4) assist students in developing competencies in various professional careers in home economics and related fields; (5) prepare students for graduate study and research in home economics; (6) evaluate the home economics program in order that current emphases and trends may be utilized to prepare students for a changing society.

All majors in the Department are expected to affiliate with the Delaware State College Chapter of the American Home Economics Association. Students are encouraged to affiliate during their freshman year and maintain this affiliation as long as they are registered in the Department.

All students who major in Home Economics must complete the general education requirements. (See General Education Requirements.) They must also fulfill requirements in the area of their concentration. Student teaching in Home Economics is coordinated through the Department of Education.

CURRICULUM OPTIONS IN HOME ECONOMICS

- Option I: Home Economics Education—This option prepares students primarily for teaching home economics in the middle, junior or senior high school, adult education and youth organization programs. Graduates are prepared to pursue graduate study in home economics. They are also prepared for homemaking.
- Option II A: Teaching in Specialized Area—Child Development and Family Relations—Graduates are prepared to teach in such preschool programs as nursery schools, kindergartens, day care centers and head start programs. Graduates are prepared to teach courses in Child Development and Family Relations in the high school. With experience and/or additional preparation graduates may teach in occupational child care programs, child welfare agencies, family counseling, parent education. Graduates may find employment with radio, television and research, establishments.
- Option II B: Teaching in Specialized Area—Clothing, Textiles and Related Arts—Graduates are prepared to teach Clothing and Textiles and Related Arts in the high schools and in occupational programs in this area. An increasing number of classes in Adult Education in Fabric Services also offer employment for graduates. Graduates will have the background for graduate study in this area.
- Option II C: Teaching in Specialized Area—Food and Nutrition—Students meeting requirement of this option are prepared to teach Food and Nutrition in the high school. With experience, they may teach in Occupational Food Service Programs. Graduates are prepared to pursue graduate study in this area.
- Option III: Clothing in Business and Industry—Graduates are prepared for careers oriented to retailing or some aspect of clothing production such as quality control and liaison between producer or retailer and consumer. Those with talent for designing and who elect additional art courses can enter specialized post-graduate study to prepare for fashion or textile designing and interior design.
- Option IV: Basic Food and Nutrition—Graduates completing the requirements of this option will have a strong background in Food and Nutrition and are prepared to explore many career possibilities—institutional foods, food production and quality control, food and recipe testing laboratories, community nutrition programs and research.

- Option V: General Home Economics—Graduates are prepared for homemaking and for professional work in Home Economics Extension and home service work with public utilities, equipment companies, poultry and dairy product companies, etc. With experience and/or additional preparation, careers are open in journalism, radio, television and State, District, and Area Home Economics Extension work.

The curriculum in home economics in the first two years provides a liberal arts background along with introductory courses in home economics. A student should confer with his/her academic program advisor not later than the second semester of the freshman year with regard to his/her major professional interest.

A major program in the Department of Home Economics includes a core of courses in the area of home and family living with additional courses selected in accordance with the student's professional goal. **All majors, however, must satisfy the general education requirements as outlined for all students at Delaware State College in addition to requirements of the department.** All home economics majors are advised to take these courses under *General Education Requirements*: Biology 101, 102; English 101, 102, 200, 201 and 202; Education 101; Music 101 or Art 101; six semester hours from the Social Sciences, three of which must be in history; six semester hours of mathematics. Students must also take chemistry 103.

All home economics majors are required to take the following courses in the department in addition to requirements of respective options: Home Economics 100, 101, 102, 104, 203, 301 (except options II B and III), 304 (except options II C and IV), 303, 306, 309, 313, 406 and home economics electives.

For Home Economics Education and General Home Economics majors a minimum of thirty-four (34) semester hours with at least one course from each of the following areas must be taken:

- Housing, Home Furnishings and Home Equipment
- Consumer Economics
- Home Management Administration
- Home Management
- Family Relations and Child Development
- Food and Nutrition
- Clothing and Textiles

For the majors in the specialized teaching options, a minimum of eighteen (18) semester hours in the area of concentration and sixteen (16) semester hours distributed among the other areas are required.

COURSES REQUIRED FOR CURRICULUM OPTIONS

HOME ECONOMICS EDUCATION MAJOR The Home Economics Education curriculum is designed to prepare to student for teaching all phases of home economics in the public school. The background is varied enough to provide opportunities for the graduate to secure a position as a home economist in business.

In addition to the *General Education Requirements* and *Requirements of the Department of Home Economics* as specified above, majors in Home Economics Education must take: Home Economics Education 100, 321 and 322; Education 204, 312, 411 and 412; Sociology 201; Art 102; History 104 and; Psychology 201 and 302.

CHILD DEVELOPMENT AND FAMILY RELATIONS MAJOR This major offers unique opportunities for study of the child and his family with enriching experiences in a child development laboratory. Current emphases on culturally disadvantaged children and families provide new professional opportunities for home economists with competencies in Child Development and Family Relations.

Courses are planned to create an awareness of the child as a developing personality and to promote understanding of the dynamics of family relations. Through the cooperation of the community, opportunities may be provided for practical experiences with families and with pre-school age children at various levels.

In addition to the *General Education Requirements and Requirements of the Department of Home Economics* as specified earlier, majors in Child Development and Family Relations must take: Home Economics Education 100, 321 and 322; Education 204, 312, 411 and 412; Sociology 201 and 401; Art 102 and 201; Psychology 201, 302, and; History 104.

CLOTHING, TEXTILES AND RELATED ART The major in Clothing, Textiles and related Arts is prepared for careers in clothing, textiles and research. With advanced study and preparation majors may find employment in fashion or textile designing and interior design, textile testing and research. Students pursuing a non-teaching option in Clothing in Business and Industry must meet the *General Education Requirements and Requirements of the Department of Home Economics*. He/she must also take: Business 108; Accounting 205; Art 203; Journalism 315; Sociology 201; Economics 201; Education 312 and; Home Economics 402.

A student may qualify as a teacher in the specialized area of Clothing, Textiles and Related Arts by successfully completing courses necessary to meet requirements of the State Department of Public Instruction for certification.

In addition to the *General Education Requirements and Requirements of the Department of Home Economics* as specified earlier, the following courses are required for teaching majors in Clothing, Textiles and Related Art: History 104; Home Economics Education 100, 321, 322; Education 204, 312, 411 and 412; Sociology 201; Psychology 201 and 302; Art 201.

FOOD AND NUTRITION Basic courses in Food and Nutrition, Chemistry and Physiology are required. Additional study and preparation in an approved hospital is required for the professional rank of dietitian. Majors in Basic Food and Nutrition must meet the *General Education Requirements and Requirements of the Department of Home Economics*. He/she must also take Biology 204 and 305; Accounting 205; Sociology 201; Psychology 201 and; Home Economics 402.

A student may qualify as a teacher in the specialized area of Food and Nutrition by successfully completing courses necessary to meet the requirements of the State Department of Public Instruction for certification.

In addition to the *General Education Requirements and Requirements of the Department of Home Economics* as specified earlier, the following courses are required for a teaching major in Food and Nutrition: Biology 204, 305; Chemistry 206; Sociology 201; Psychology 201 and 302; Art 102, History 104; Home Economics Education 100, 321, 322; Education 312, 411 and 412.

GENERAL HOME ECONOMICS This general home economics program serves as a foundation for positions that require a broad background of knowledge in all areas of home economics with the accompaniment of carefully selected related areas. Although this curriculum is not directed toward specific profes-

sional opportunities, the major is expected to declare a special area of interest in the area of home economics and select courses to develop depth in that area of concentration.

In addition to the *General Education Requirements and Requirements of the Department of Home Economics* as specified earlier, majors in General Home Economics have a great deal of flexibility in selecting courses. They must however, select courses to develop depth in an area of home economics. Additionally, the following courses are required: Art 101; Biology 204 and 305, Psychology 201; Sociology 201; Education 312; Home Economics 100 and 402.

COURSE DESCRIPTIONS

HOME ECONOMICS (18)

HOME ECONOMICS EDUCATION

100. INTRODUCTION TO HOME ECONOMICS. A survey of home economics as a field of study, the course is designed to acquaint students with the history, philosophy, organizational framework, growth, expansion and present status of home economics. Some attention is given to educational and personal requirements and opportunities in home economics careers and in related disciplines that utilize home economics knowledge and skills. Required of all freshmen who major in home economics. One lecture per week. One credit hour.

321. METHODS OF TEACHING HOME ECONOMICS. A study of teaching approaches, techniques, methods and resources, treatment of objectives, unit organization, plans, evaluation and classroom management. Provisions are made for observation in public school home economics programs in middle, junior, senior high and vocational schools. Some attention is given to vocational and adult education in home economics. Three lectures per week. Three credit hours.

322. ADVANCED METHODS OF TEACHING HOME ECONOMICS. Basic principles and developments in curriculum and evaluation in relation to total school program, classroom discipline and morale, teacher role and responsibilities, professionalism, changes, trends and emphases in the field. Participation in various types of public school home economics programs on different levels and in community based programs in home economics is provided. Prerequisite: HE 321 Three lectures per week. Three credit hours.

350. SPECIAL PROBLEMS IN HOME ECONOMICS*. An opportunity is provided in this course for investigation of a problem in the area of concentration. Under the guidance of a faculty member in the area, the student will engage in an approved independent study activity dependent upon need and the availability of faculty. Prerequisite: Junior or senior classification and approval of her/his advisor and the department chairperson. Credit one to three hours.

CHILD DEVELOPMENT AND FAMILY RELATIONS

101. PERSONAL AND FAMILY RELATIONSHIPS. A study of personal problems and relationships in families, between and among people, functions of dating, courtship, the engagement period, basis for mate selection. Evaluation of personal, social and economic conditions on family and group living. Three lectures per week. Three credit hours. Open to students in other disciplines.

313. CHILD DEVELOPMENT AND CARE. A study of development of the child in the home environment from the prenatal stage through preschool years oriented toward the developmental tasks of early childhood, problems in preparation for the newborn, the interrelatedness of physical, emotional, mental and social development. Some attention is given to demonstration techniques in the care of the baby. The student has opportunity to work with young children in the Child Development Laboratory. Prerequisite: HE 101 or its

*A junior or senior majoring in any area of home economics may enroll in this independent study course with approval.

equivalent. Three lectures and one laboratory period per week. Credit, three hours. Open to junior and seniors in other disciplines.

314. ADVANCED CHILD DEVELOPMENT AND CARE. A study of developmental needs, relationships and behavior problems of the young child during the first six years of life, methods and principles of guidance, perception, motivation and learning, personality and inter-personal relationships. Research studies will be consulted and students will be challenged to formulate and investigate a problem based on observation and participation in the nursery school and/or day care or head start program. Prerequisites: HE 101 and 313. Three lectures and one laboratory period per week, Credit, three hours. Open to juniors and seniors in other disciplines with comparable prerequisites.

316. THE NURSERY SCHOOL. A study of the organization and operation of programs of young children-nursery school curriculum, furniture, equipment, materials, principles and procedures for the development of scientific, creative, social, mathematical and other concepts. Supervised observation and participation in various types of community nursery schools, kindergartens, day care and head start centers. Prerequisites: HE 101 313 and 314. Two lectures and two laboratory periods per week. Credit, three hours.

318. CHILD CARE AND GUIDANCE. Principles of development and guidance of pre-school children in play, creative activities and curriculum both in the home and school settings, selection and use of appropriate materials, facilities and equipment. Students will plan and participate in activities for pre-school children in various types of programs under the direction of head teachers. Prerequisites: HE 101, 313, 314 and 316. Two lectures and three laboratory periods per week or eight hours per week. Credit, four hours.

CLOTHING, TEXTILES AND RELATED ARTS

104. CLOTHING AND TEXTILES. This is a basic clothing construction course with emphasis on beginning sewing techniques. Attention is given to basic pattern alterations and fabric identification and handling. One lecture and two laboratory periods per week. Credit, three hours.

201. HISTORIC COSTUME AND DESIGN. This is a study of the development of costumes from primitive to modern times with emphasis on the historic and cultural settings. Prerequisite: Art 101. Two lectures per week. Credit, two hours.

204. CLOTHING FOR THE FAMILY. This course examines the socio-economic and psychological aspects of clothing and the clothing needs of the family. The students construct garments for family members and/or individuals with special clothing needs. Some attention is given to demonstration techniques in clothing. Prerequisite: HE 104. One lecture and two laboratory periods per week. Credit, three hours.

205. FLAT PATTERN DESIGN AND DRAFTING. This course is a study of the fundamentals of flat pattern making with emphasis on designing and fitting for the individual. Prerequisite: HE 104. One lecture and two laboratory periods per week. Credit, three hours.

207. INTRODUCTION TO FASHION. In this course the student examines the principles of fashion, the fashion industry, and fashion merchandising. Two lectures per week. Credit, two hours.

302. TEXTILE ANALYSIS. This course reviews textiles and fabrics from the aspect of the consumer. Emphasis is on fiber properties; color application; and fabric finishes, construction and care. One lecture and two laboratory periods per week. Credit, three hours.

304. HOUSING AND HOME FURNISHINGS. This course consists of house planning; the study of furnishings and architecture; trends in modern building; and housing costs. One lecture and two laboratory periods per week. Credit, three hours.

310. PRE-COMMERCIAL SEWING. This course is designed to give students knowledge of the garment and textile industries including economic aspects and factory production techniques. Prerequisites: HE 104 and HE 304. One lecture and two laboratory periods per week. Credit, three hours.

312. DESIGNING BY DRAPING. This course is a study of the fundamentals of draping with emphasis on the creation and construction of original garment designs. Prerequisites: Art 101; HE 104; and HE 201. One lecture and two laboratory periods per week. Credit, three hours.

320. ADVANCED TEXTILES. This is a study of the physical and chemical properties of textile fibers and fabrics. Prerequisite: HE 302. One lecture and two laboratory periods per week. Credit, three hours.

405. ADVANCED CLOTHING. The emphasis of this course is on advanced clothing construction techniques including tailoring a suit or coat. Prerequisites: HE 104 and HE 204. One lecture and two laboratory periods per week. Credit, three hours.

FOOD AND NUTRITION

102. INTRODUCTORY FOODS. Scientific methods in the preparation and handling of foods for maximum retention of nutrients, flavor and color. One lecture and two laboratory periods per week. Credit, three hours.

203. MEAL MANAGEMENT. Meal planning, food selection, and purchasing for families on different income levels. Emphasis will be placed on human and other material resources in providing family meals, various styles of table service, and etiquette of the table. Some attention will be given to food demonstration techniques. One lecture and two laboratory periods per week. Prerequisite: HE 102. Credit, three hours.

301. INTRODUCTION TO NUTRITION. A study of food constituents and the processes by which they are absorbed and utilized by the body. Three lectures per week. Prerequisites: Biology 101 and 102. Credit, three hours.

401. INSTITUTIONAL MANAGEMENT. Problems involved in organizing and managing food service establishments. Three lectures per week. Credit, three hours.

402. CLINICAL/FIELD EXPERIENCE*. A supervised on-site participatory experience in a clothing/fabric or food establishment, cooperative extension or other community based program related to the students professional goal. Opportunity is provided for independent study and investigation in a problem area oriented to business and industry. The experience compares with student teaching for education majors and is a "block" course offered the second semester of the senior year. Prerequisites: all required courses in area of specialization. Credit, six hours.

403. DIET THERAPY. The role of the diet in the prevention and treatment of disease. Three lectures per week. Prerequisites: HE 308; Chemistry 206; and Biology 204. Credit, three hours.

407. EXPERIMENTAL FOODS. Scientific principles in manipulating ingredients for comparative methods of food preparation. Two lectures and one three hour laboratory period per week. Prerequisites: HE 102; Chemistry 206 and Biology 204. Credit, three hours. Note: Beginning the 1975-76 academic year, this course will be offered alternate years.

409. QUANTITY FOODS. Methods involving large quantity food preparation and recipe standardization. One lecture and two laboratory periods per week. Prerequisite: HE 102. Credit, three hours. Note: Beginning the 1975-76 academic year, this course will be offered alternate years.

THE HOUSE AND ITS ADMINISTRATION

303. HOME EQUIPMENT. Application of scientific principles involved in the selection, use, care and arrangement of materials, household equipment and appliances. Attention is also given to electricity and other types of energy used in the home, home lighting, kitchen and laundry planning and the home water supply. Lectures, demonstrations, projects, laboratory experiences and field trips are included. One lecture and two laboratory periods per week. Credit, three hours.

*Required of majors in Clothing in Business and Industry; Basic Food and Nutrition, and; General Home Economics.

306. HOME MANAGEMENT THEORY. The management process, decision making, values, goals, resources and standards in relation to individuals and families. The application of work simplification principles to the problems of the family. Two lectures per week. Credit, two hours.

309. CONSUMER ECONOMICS. Study, experimentation and discussion of problems, issues, and trends in consumerism, consumer behavior, rights and responsibilities. Students will investigate consumer concerns and engage in comparative shopping for family goods and services. Three lectures per week. Credit, three hours.

406. HOME MANAGEMENT ADMINISTRATION. Supervised living experiences in Home Management Residence for a period of six weeks. The course focuses on management of human and material resources, application of abilities, skills and techniques of homemaking, decision making in the use of money, time, energy and personal resources to solve problems related to planning, purchasing, preparing and serving family meals, housekeeping practices, group relationships, social activities and recreation. Prerequisites: Home Economics courses in all areas. Credit, six hours.

OR

A married student with a dependent child may engage in a planned Supervised Practicum with her own family and/or with families in the community upon the approval of the home economics faculty. This option may be taken provided faculty load will permit the home management residence advisor to supervise the experience. Managerial experiences should be comparable to those offered in the Home Management House.

THE DEPARTMENT OF MATHEMATICS

Associate Professors: Bragg (Chairman), Frankl, Smith, Washington

Assistant Professors: Gibson, *Nilsson, **Tisdale

Instructors: **Hamilton, Hawley, Tighe, ***Williams

The general objectives of the Department of Mathematics are to provide opportunities for students to develop functional competence in mathematics; an appreciation for the contributions of mathematics to science, business, economics, and the social sciences; and the power of critical thinking. The Department strives to prepare students to pursue graduate study and for careers in teaching, government, and industry.

The Department of Mathematics aims to provide the student with a course of study directed toward an understanding of the nature of mathematical theory and its relation to other areas of knowledge. This study includes an emphasis on precision of definition, reasoning to precise conclusions, and an analysis and solution of problems using mathematical principles.

All students who select a major within the Department of Mathematics must complete the general education program as required of all students. Specific courses required for the various curriculum options are indicated below.

CURRICULUM OPTIONS IN MATHEMATICS

MATHEMATICS MAJOR The requirements for a major in mathematics are thirty (30) hours selected from courses numbered 200 or above to include Mathematics 221, 222, and 223, and exclude 231, 232, and 403. The major must also complete Physics 202-202. A student planning professional study in actuarial

*Visiting IBM Professor of Computer Science

**Leave of absence

***One-half year

mathematics should plan a curriculum which will enable him to complete parts 1 and 2 of the Preliminary Actuarial Examinations.

MATHEMATICS MAJOR (TEACHING) The requirements for a teaching major in mathematics are thirty-three (33) hours of mathematics selected from courses numbered 200 or above to include Mathematics 221, 222, 223, 403. In addition, a mathematics teaching major must complete Education 204, 405, 411, 412; Psychology 201, 204, 302, 316; Physics 201-202

MATHEMATICS MAJOR (EMPHASIS IN MATHEMATICAL PHYSICS) A student who wishes to major in mathematics with an emphasis in Mathematical Physics must complete Mathematics 221, 222, 223, and twelve hours to be selected from courses numbered 200 or above. In addition, the student must complete Physics 201-202, and six hours to be selected from Physics 301, 302, and 404.

MINORS

To provide an opportunity for students to obtain a minor concentration in Mathematics, the Department of Mathematics offers the following options:

OPTION I Twenty-one (21) hours distributed as follows: Mathematics 221, 222, 223, and nine (9) additional hours selected from Mathematics courses at the 200 level or higher excluding 231, 232, and 403.

OPTION II Twenty-one (21) hours distributed as follows: Mathematics 208, 209, 211, 231, 232, 302, and 308.

COURSE DESCRIPTIONS

MATHEMATICS (25)

101-102. INTRODUCTION TO MATHEMATICS. A course designed to acquaint students with the basic concepts of mathematics. Topics treated will include set operations, logic, ratio and proportion, introduction to probability and statistics, and an introduction to computing. Any student who meets the admission requirements of the college may enroll in Mathematics 101. Credit, three hours each.

103-104. COLLEGE ALGEBRA AND TRIGONOMETRY. A course designed for students planning to continue study in mathematics and the sciences. Topics treated will include the real number system, exponents and radicals, functions, graphs, systems of equations, and an introduction to matrices and determinants. Prerequisite: A minimum of two (2) units of high school mathematics selected from algebra, geometry, or trigonometry. Credit, three hours each.

105-106. MATHEMATICS FOR THE ELEMENTARY TEACHER. A course designed to acquaint students preparing to teach in the elementary school with the structure of the real number system and its subsystems. Content includes sets; set operations; fundamental operations with natural numbers, fractions, decimal fractions, and sign numbers; prime and composite numbers; elementary algebra, applications; measurement and mathematical systems. Credit, three hours each.

203. COLLEGE GEOMETRY. An extension of elementary geometry. A postulational treatment of the geometry of planes and space including incidence geometry, congruence, convex sets, separation of planes and space, similarity, and ruler and compass constructions. Prerequisite: Mathematics 104 or its equivalent. Offered in even alternate years. Credit, three hours.

204. NON-EUCLIDEAN GEOMETRY. A treatment of Euclid's parallel postulate, nature of proof, characteristics of a mathematical system, Lobachevskian geometry, and Riemannian geometry. Prerequisite: Mathematics 203. Offered in alternate years. Credit, three hours.

208. INTRODUCTION TO COMPUTING. A course in the organization and solution of problems using a digital computer. Programming languages used are BASIC, and FORTRAN. Prerequisite: Mathematics 102. Credit, three hours.

209. INTRODUCTION TO COMPUTING II. A course treating the organization of computers and computer systems. Topics included are hardware features, components, and structures. Prerequisite: Mathematics 208. Credit, three hours.

210. MATHEMATICS FOR MIDDLE SCHOOL SCIENCE TEACHERS. This course will include measurement, probability and statistics with the application to both life and physical science. Much of the material will be based on mathematical principles which will be needed by the student in presenting modern science programs. Credit three hours.

211. PROBABILITY I. An introduction to finite probability and measurements with applications from the social and natural sciences. Topics treated will include sample spaces, probability measures, random variables, and expectation. Prerequisite: Mathematics 104. Credit, three hours.

221. CALCULUS I. An introduction to functions, limits, and continuity, a study of the derivative and differential and their applications, and a development of the definite integral with applications. Prerequisite: Mathematics 104 or approval of the Mathematics Department. Credit, four hours.

222. CALCULUS II. A continuation of Math 221 covering logarithmic, exponential, trigonometric and hyperbolic functions, techniques of integration, indeterminate forms, improper integrals, Taylor's formula and infinite series. Prerequisite: Mathematics 221. Credit, four hours.

223. CALCULUS III. A continuation of Math 222 to include polar coordinates, vectors and parametric equations, solid analytic geometry and calculus of several variables. Prerequisite: Mathematics 222. Credit, four hours.

231. CALCULUS FOR BUSINESS AND SOCIAL SCIENCE I. An introduction to functions, integration, and differentiation, stressing those aspects applicable to business and the social sciences. Prerequisite: Mathematics 104. Credit, three hours.

232. CALCULUS FOR BUSINESS AND SOCIAL SCIENCES II. A continuation of Mathematics 231 covering special functions, a more general treatment of integration and differentiation, optimization, approximation, and models. Applications are taken from business and social sciences. Prerequisite: Mathematics 231. Credit, three hours.

301. DIFFERENTIAL EQUATIONS. A treatment of the solutions of ordinary differential equations and their applications to various types of problems. Prerequisite: Mathematics 222. Credit, three hours.

302. LINEAR ALGEBRA. A treatment of vectors, matrices and determinants, linear transformations, and applications. Prerequisite: Mathematics 222. Credit, three hours.

303. PROBABILITY II. A treatment of probability models, probability distributions, law of large numbers, and an introduction to the theory of Markov chains. Prerequisites: Mathematics 222 and 211. Credit, three hours.

308. COMPUTATIONAL MODELS. A survey of the use of the computer to solve problems in statistics, the physical sciences, and the social sciences. Prerequisite: Mathematics 208 and 211. Credit, three hours.

311. DIFFERENTIAL EQUATIONS II. A continuation of Mathematics 301, treating ordinary and partial differential equations. Prerequisite: Mathematics 301. Credit, three hours.

312. LINEAR ALGEBRA II. A treatment of vector spaces, linear transformations, inner products, eigenvalues, and decomposition theory. Prerequisite: Mathematics 302. Credit, three hours.

401-402. ADVANCED CALCULUS. A treatment of limits, continuity, properties of differentiable and integrable functions, sequences, and series. Prerequisite: Mathematics 223. Credit, three hours each.

403. METHODS OF TEACHING MATHEMATICS IN THE SECONDARY SCHOOLS. A study of the methods and materials used in teaching high school mathematics. Prerequisites: Mathematics 222. Credit three hours.

411-412. ALGEBRAIC STRUCTURES. A study of groups, rings, integral domains, fields, and topics in linear algebra. Prerequisites: Mathematics 222. Credit, three hours each.

498-499. SEMINAR IN MATHEMATICS. A treatment of selected topics in mathematics. Prerequisite: Consent of the department. Credit two hours each.

THE DEPARTMENT OF MUSIC EDUCATION

Professor: Brockington, (Chairman)

Assistant Professors: Cooper, Morrison, Pigler

Instructor: Carter

Adjunct: Banschbach, Kelly, McCarthy, Voshell

The Department of Music Education functions to accomplish the following objectives.

1. to prepare students for positions as music teachers in elementary and secondary schools and for graduate study;
2. to offer the courses in music education needed by prospective elementary school teachers;
3. to provide programs designed to stimulate the development of musical understanding and appreciation;
4. to provide music courses and musical activities for all students regardless of their major.

MUSIC EDUCATION MAJOR All students who select Music Education as a major must complete the general education program as required of all students (See General Education Requirements). In addition the following courses are required: Music Education 113-114, 202, 213-214, 302, 310 or 317, 311, 312, 313, 314, 321-322, 323-324, 401, 403, 410, 423, 424; Education 204, 411, 412; Psychology 201, 302, 316.

In addition, music majors are required to study their major performing medium for eight semesters, to attend departmental meetings of Music Education majors, music seminars and lyceum features, and to participate in student recitals. Majors must present a senior recital on their major performing medium as a part of graduation requirements.

Students selecting a major performing medium other than piano are required to take piano as a minor performing medium. Students selecting piano or voice as a major performing medium are required to participate in choir eight semesters, to participate in band two semesters, and to study a wind or percussion instrument for two semesters.

Students selecting a wind or percussion instrument as a major performing medium are required to participate in band eight semesters, to participate in choir two semesters, and to study voice two semesters. However, students with proficiency in more than one instrument may satisfy in any combination the 10-hour band and chorus requirement with the consent of the departmental chairman.

The courses that are offered in chorus and band are as follows: Chorus 107-108, 207-208, 307-308, 407-408; Band 115-116, 215-216, 315-316, 415-416.

MUSIC EDUCATION MINOR. For a minor in Music Education, a total of 22 credits are required. They are: Music Theory I & II — 6 Credits, Applied Piano (Minor Performing Medium) — 4 Credits, Applied Major Medium if not Piano — 4 Credits, and Ensemble — 8 Credits.

COURSE DESCRIPTIONS

MUSIC (06)

100. AFRO-AMERICAN MUSIC. A study of Afro-American music with emphasis on style, performers, and composers. Credit, two hours.

101. INTRODUCTION TO MUSIC. A course designed to acquaint non-music majors with the broad field of music. Emphasis is placed upon the development of musical interests and elementary skills in music reading and writing through participation and listening. Credit, three hours.

105-106, 205-206, 305-306, 405-406. Applied Classical Guitar

125. CLASS PIANO (Non Music Majors). One credit hour.

135-136, 235-236, 335-336, 435-436. Applied Piano.
145-146, 245-246, 345-346, 445-446. Applied Voice.
155-156, 255-256, 355-356, 455-456. Applied Organ.
165-166, 265-266, 365-366, 465-466. Applied Brasses.
175-176, 275-276, 375-376, 475-476. Applied Woodwinds.
185-186, 285-286, 385-386, 485-486. Applied Percussion Instruments.
195-196, 285-286, 385-386, 485-486. Applied Strings.
Credit, one hour each. Open to Music Majors only.

APPLIED MUSIC. Instrumental, keyboard, and vocal instruction in applied music. The development of performing skills is a basic objective. Applied music instructions are offered individually and in small groups. Students are required to study their major performing medium individually in private lessons. Those studying applied music as a minor medium may elect, under certain conditions and with special permission, to study in small groups. Students taking applied music for credit will be required in all cases to study with members of the departmental faculty. All students registered for piano as a minor performing medium must successfully pass a piano proficiency examination at the completion of the fourth semester of study. Students failing to pass the examination are required to repeat Piano 236 until examination requirements are satisfied.

107-108, 207-208, 307-308, 407-408. CHORUS. A study of choral works with emphasis on reading, interpretation, tone quality, enunciation and diction. Three meetings per week. Credit, one hour each. (By audition only.)

113. THEORY I. A course in the fundamentals of music, notation, terminology, voice classification, and the study of the elements of music: scale, rhythm, and tempo, to develop the ability to sing at sight and to take dictation. Five meetings per week. Credit, three hours.

114. THEORY II. Chord structure, inversion, dominant seventh, dominant ninth, and the use of the primary and secondary chords in all forms, to develop the ability to sing at sight and to take dictation. Five meetings per week. Prerequisite: Music 113. Credit three hours.

115-116, 215-216, 315-316, 415-416. BAND. First semester-marching band: formation drill and the techniques of football half-time shows. Second semester-concert band: study of concert literature, performance techniques and repertoire. Three meetings per week. Credit, one hour each.

201. PUBLIC SCHOOL MUSIC FUNDAMENTALS. Ear training and sight singing, relative pitch, notation and study of rhythms, intervals in major and minor modes, key signature and dictation. Designed for non-music majors. Credit, two hours.

202. PUBLIC SCHOOL MUSIC METHODS AND MATERIALS. A course designed to provide knowledge about and insight into practices, programs, and principles operative in music at the elementary school level. Prerequisite: non-music major, Music 201. Credit, three hours.

213. THEORY III. The use of non-harmonic tones, borrowed tones, the augmented sixth chords, enharmonic embellishments, chromatic progression of seventh chords, and advanced modulation to develop the ability to sing at sight and to take dictation. Five meetings per week. Prerequisite: Music 114. Credit, three hours.

214. THEORY IV. A course in harmonization, modulation, improvisation, and transposition at the keyboard to develop the ability to sing at sight and to take dictation. Five meetings per week. Prerequisite: Music 213. Credit, two hours.

302. MATERIALS AND METHODS. A course which provides knowledge about and insight into the programs, practices and principles operative in music at the junior and senior high school levels. Credit, three hours.

310. CONDUCTING. The techniques of conducting with the baton. Problems of score reading and transposition are stressed. Instruction, demonstration, and practice. Credit, two hours.

311. BRASSES. A practical study of the brass instruments with emphasis on the cornet. Credit, one hour.

312. STRINGS. A practical study of the stringed instruments with emphasis on the violin. Credit, one hour.

313. PERCUSSION INSTRUMENTS. A practical study of the percussion instruments with emphasis on the snare drum. Credit, one hour.

314. WOODWINDS. A practical study of the woodwind instruments with emphasis on the clarinet. Credit, one hour.

317. VOCAL CONDUCTING. The techniques of conducting choral organizations. Stress is placed upon basic patterns of conducting various meter, expressive and non-expressive gestures, cues, dynamics, and interpretation. Credit, two hours.

321-322. COUNTERPOINT. A study of the various orders, imitation, thematic construction, and analysis with practical written exercises in various contrapuntal forms. Prerequisite: Music 214. Credit, two hours each.

323-324. MUSIC HISTORY AND LITERATURE. A simultaneous study of the history and literature of music in the Western world through discussion, performance, analysis and recording. The first semester includes music from antiquity (Greek) through the Renaissance period (Elizabethan era). The second semester includes a study of music from the Baroque period (Bach and Handel) through the classical period (Mozart). Credit, two hours each.

401. VOCAL METHODS. A study of vocal fundamentals including diction, intonation, tone quality, and breath control. Choral literature and techniques of teaching are stressed. Credit, one hour.

403. INSTRUMENTAL METHODS. A study of instrumental teaching techniques and materials for all grades, problems of intonation, tone quality, balance, and rehearsal techniques. Public performance preparation, programs, festivals, and adjudication are discussed. Credit, one hour.

410. ORCHESTRATION. A study of the fundamentals of writing for orchestral instruments. Registration, instrumentation voicings, and technical limitations are considered. Problems of writing for the various combinations with reference to the needs of the public school are emphasized. Prerequisite: Music 322. Credit, three hours.

413. ARRANGING. A study of the fundamentals of writing for the various band instruments. Problems of transposition, voicing, registration and blend with reference to the needs of the public school ensemble are included. Prerequisite: Music 322. Credit, two hours.

423-424. MUSIC HISTORY AND LITERATURE. A study of music during the Romantic period (Beethoven to Debussy). The fourth semester includes a study of music of the twentieth century (Les six through Serialism and Chance). Credit, two hours each.

THE DEPARTMENT OF NURSING

Associate Professor: Braxton (Chairman), Mynatt
 Assistant Professor:* Brown
 Instructor: Donovan
 Departmental Assistant: Reed

The basic baccalaureate degree nursing program is grounded in the concept of academic excellence. The program admits qualified high school graduates seeking professional preparation for nursing practice. Preparation for professional nursing practice demands a knowledge of the humanities, natural and social sciences and nursing theory with correlated laboratory practice.

The over all program is designed to meet the needs of students whose academic capabilities may not be measurable by traditional means, average and gifted students. The primary aims of the program are to prepare a professional nurse who, (1) uses the nursing process in a variety of settings in assisting individuals to meet Basic Human Needs, (2) is a civic Leader who will advocate for the health of individuals and groups of people, and (3) is an innovative leader who collaborates with other members of the health team and community members in promotion, restoration and maintenance of health. Graduates of the program are eligible to take the examination for licensure as registered nurses administered by the Delaware State Board of Nursing. They are broadly prepared for employment in first level (beginning) positions in professional nursing in a variety of health agencies.

The nursing curriculum is four academic years plus one summer session in length and leads to the bachelor of science degree with a major in nursing. All nursing courses except lower level ones, Nursing I and II, include both nursing theory and related laboratory study. Health agencies including hospitals, nursing homes and clinics, homes and schools in the Delaware area in addition to the simulated laboratory in the Nursing Department provide the setting for laboratory study in nursing.

Students planning to pursue the nursing major should have taken high school Chemistry as well as high school Biology. Prospective students are expected to follow the admission policy of the College and present scores for the College Board Scholastic Aptitude Tests (SAT).

CURRICULUM IN NURSING

NURSING MAJOR Because of the nature of the nursing program, sequence is important. Successful completion of specified courses in the natural and social sciences, Nursing I and II is required for admission to the first nursing course with related laboratory study. Students must follow this sequence to avoid delay in progressing to the first clinical nursing course.

* Part-time

All students who select a major within the Department of Nursing must complete the general education courses required of all students (See General Education Requirements). In addition, the following courses are required: Biology 100, 207, 305; Chemistry 105, 106; Home Economics 301; Sociology 201; Psychology 201, 316; Six (6) hours Humanities electives; Nursing 102, 201, 202, 203, 301, 302, 401, 402, 403, 404, 405.

COURSE DESCRIPTIONS

NURSING (28)

102. OVERVIEW OF HEALTH. A study of health facilities and care systems from ancient civilization to modern times. Major biological and technological contributions to health, contemporary health agencies and their functions will be major topics of discussion. Credit, two hours.

201. NURSING I – ORIENTATION TO NURSING. A study of human behavior, communications and nurse-patient interactions, as well as exploration of the roles and functions of nursing team and health team members with emphasis on nursing and its contribution to the health care system. Included also is an introduction to the Problem-Solving Process as the basis for Nursing Process. Prerequisites: Nursing 102. Credit, three hours.

202. NURSING II – THE NATURE OF THE NURSING PROCESS. Introduction to the components of the nursing process and their relationship to professional nursing practice; emphasis upon the development of knowledge, skills and attitudes necessary for effective nursing intervention for individuals and families. Related simulated laboratory study. Prerequisites: Sociology 201, Psychology 201, Biology 100, 305, Nursing 201. Credit, five hours.

203. NURSING III. – THE NATURE OF THE NURSING PROCESS (CONTINUED). A continuation of the development of skills necessary for effective nursing intervention. An introduction to the aging process and the care of geriatric patients with select medical-surgical nursing conditions. Related laboratory study. Prerequisites: Biology 207, 305, Nursing 202. Credit, seven hours.

301. NURSING IV – MEDICAL-SURGICAL NURSING. A course designed to aid the student to gain increasing skill in meeting the needs of patients resulting from interferences with basic human needs. Development of skills in recognizing emotional responses to illness and utilization of community resources. Related laboratory study. Prerequisite: Nursing 203, Home Economics 301. Credit, nine hours.

302. NURSING V – MATERNAL CHILD HEALTH NURSING. A family-centered course which considers normal pregnancy and childhood from birth to adolescence. Aspects of health maintenance will be stressed as well as illnesses common to children and complications of pregnancies. Prerequisites: Psychology 316, Home Economics 301, Nursing 203. Credit, nine hours.

401. NURSING VI – PSYCHIATRY AND COMMUNITY MENTAL HEALTH NURSING. Study of the psychodynamics of mental health and mental illness. Selected emotional disturbances are investigated, with emphasis in the application of the nursing process in caring for the mentally ill persons in a variety of settings; group and family dynamics methodology used as an integral part of that process. Prerequisite: Nursing 302. Credit, six hours.

402. NURSING VII – COMMUNITY HEALTH NURSING. Principles of community health nursing, essential to the safe, effective care of patients and families in the home. Emphasis on community organization for delivery of health service and programs to meet community health needs. Prerequisite: Nursing 302. Credit, six hours.

403. NURSING VIII – ADVANCED COMPREHENSIVE NURSING. A study of nursing care of in relation to more complex individual problems and multi-problem families. Related laboratory study also will include an experience in Nursing Leadership. Prerequisite: Senior Status. Credit, nine hours.

404. TRENDS IN NURSING. An exploration of current issues and trends in contemporary nursing; an introduction to the fundamentals of nursing research and the concepts essential to critically read and evaluate research literature. Discussion topics include legal aspects of nursing, contemporary issues, nursing research design and implementation. A group project will be required where students work together to identify a problem and design a research proposal. Prerequisite: Senior Status. Credit, four hours.

405. NURSING LEADERSHIP. An exploration of the administrative and leadership processes as they apply to nursing. Prerequisite: Senior Status. Credit, three hours.



THE DEPARTMENT OF PHILOSOPHY

Associate Professor: Price (Chairman)

Assistant Professor: Miller

The Department of Philosophy offers courses designed to develop the student's ability to think clearly and critically throughout a wide range of problems, to stimulate his interest in fundamental questions concerning people's existence, purposes and methods, and to guide him in organizing his beliefs coherently. Students should note that any courses offered by the Department of Philosophy will fulfill the humanities general education requirements.

CURRICULUM OPTION IN PHILOSOPHY

PHILOSOPHY MINOR For a minor in philosophy, fifteen hours distributed as follows are required: Philosophy 201, 206, either 300 or 302 and two three-hour electives in philosophy.

COURSE DESCRIPTIONS

PHILOSOPHY (03)

101. CRITICAL THINKING. Students read, discuss, debate and write position papers about current controversial issues. The aim of the course is to develop the student's ability to reason effectively, i.e., to analyze problems, identify the issues, critically evaluate evidence, argue logically and reach and be able to defend justifiable conclusions. Credit, three hours.

201. PROBLEMS OF PHILOSOPHY. (Previously "Introduction to Philosophy"). A critical examination of fundamental beliefs and methods of inquiry in science, religion, and everyday life. Investigation of basic problems of reality, knowledge, value, freedom and concepts of God. Credit, three hours.

202. ETHICS. An examination of the principles of obligation and conduct which are applied in making moral decisions and of the major conceptions of the good life. Discussion of basic problems: egoism and altruism; freedom and determinism; the nature of ethical judgement. Credit, three hours.

206. LOGIC. A study of the methods and principles used to distinguish correct from incorrect reasoning, both deductive and inductive. Designed to help students reason more effectively themselves and to develop the ability to more cogently criticize the reasoning of others. Credit, three hours.

207. PHILOSOPHY OF SCIENCE. An investigation into the logical structure of scientific theories and an analysis of the general methodological concepts which play a crucial role in scientific inquiry, e.g., the notions of empirical import, explanation, prediction, confirmation and lawlike statements. Credit, three hours.

300. HISTORY OF ANCIENT PHILOSOPHY. An examination of the great movements of philosophic thought of the Greek period with special emphasis on Plato and Aristotle. Credit, three hours.

302. HISTORY OF MODERN PHILOSOPHY. A study of the major developments in Western Philosophy during the seventeenth and eighteenth centuries. Particular attention will be given to the thought of Hobbes, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume and Kant. Credit, three hours.

304. POLITICAL PHILOSOPHY. An examination of important concepts and theories of government. Credit, three hours.

307. THE PHILOSOPHICAL FOUNDATIONS OF URBAN PROBLEMS. A study of the philosophic bases and implications of contemporary urban problems, including such topics as the nature of man, the division of labor and the problems it generates and theories of how to establish a unified, harmonious community. Credit, three hours.

399. INDEPENDENT STUDY. Designed to enable the qualified student, under the guidance of a faculty member, to pursue in depth a selected area of interest in philosophy. Departmental approval required. Credit, three hours.

401. ORIENTAL PHILOSOPHY. An investigation of the major philosophical ideas of the East. Credit, three hours.

402. PHILOSOPHY OF RELIGION. A systematic study of philosophical issues involved in religious belief, such as the existence of God, evil, freedom, faith, immortality and the possibility of religious knowledge. Credit, three hours.

461. SELECTED TOPICS IN PHILOSOPHY. See the instructor or the departmental chairman for information on course content. Prerequisite: Departmental approval. Credit, three hours.

THE DEPARTMENT OF PHYSICS AND ASTRONOMY

Professor: Helmy (Chairman)

Associate Professor: Purdy

Assistant Professor: Gleeson

The Department of Physics and Astronomy seeks to provide a thorough training in Physics for students desiring to concentrate in one of the areas of physics and/or engineering and technology. The department endeavors to prepare students for graduate studies and for careers in industry, research laboratories, teaching and government offices.

Course offerings are available to majors in other areas who wish supplemental training in specific aspects of physics.

CURRICULUM OPTIONS IN PHYSICS AND ASTRONOMY

PHYSICS MAJOR (NON-TEACHING) All students who select a major within the Department of Physics and Astronomy must complete the General Education Program as required of all students (See General Education Requirements). In addition, students who wish to major in physics but do not plan to teach at the secondary level must take 42 hours of physics, including the following: Physics 201-202, 201L-202L, 301-302, 303-304, 305, 306, 401, 402, 404, 408; a three (3) credit physics elective (400 level); French or German 101-102, 201-202; Chrmistry 101-102.

Every non-teaching physics major must minor in mathematics. The minor program includes: Mathematics 103, 104, 221, 222, 223, 301, 401, 402.

PHYSICS MAJOR (TEACHING) All students who select this major must complete the general education program as required of all students (See General Education Requirements). In addition, students who plan to teach on the secondary level must take 31 hours of physics including: Physics, 201, 202, 201L, 202L, 303, 304, 305, 306, 401, 402, 409; a three credit physics elective. Every physics teaching major must take Astronomy 101; Biology 101-102; Chemistry 101-102; Mathematics 103, 104, 221, 222, 223, 301; Education 204, 312, 405, 411, 412; Psychology 204, 302, 316.

Students should note that some physics courses have mathematics prerequisites. The student should consult course descriptions listed below for

prerequisite information. Mathematics 103 and 104 can be waived at the discretion of the department chairman for students whose high school records show that they have mastered the material covered in these course.

PHYSICS MINOR Students seeking a minor in physics are required to take Physics 201-202 and a minimum of eleven (11) credit hours in physics at the 300 level or above.

CURRICULUM OPTIONS IN ENGINEERING

ELECTRICAL ENGINEERING MAJOR (See Electrical Engineering Option under Engineering Program for specific requirements).

PHYSICS/CIVIL ENGINEERING MAJOR (See Physics/Civil Engineering option under Engineering Program for specific requirements).

PHYSICS/MECHANICAL ENGINEERING MAJOR (See Physics/Mechanical Engineering option under Engineering Program for specific requirements).

CURRICULUM OPTIONS IN TECHNOLOGY

The options are listed under Technology Program. Details about the curricula are provided by the sponsoring department.

COURSE DESCRIPTIONS

ASTRONOMY (22)

101-102. DESCRIPTIVE ASTRONOMY. A qualitative description of the solar system. The development, positions, motions and laws of the planets. The second semester involves the nature of stars and galaxies. Two lectures and two hours of laboratory per week. Credit, three hours each.

201. PRACTICAL ASTRONOMY. Basic training in observation with a large telescope. Time and celestial co-ordinate determinations. Preparation and use of star charts and catalogues. Three lectures and three laboratory hours per week. Prerequisites: Mathematics 104 or Physics 201. Credit, four hours.

205. PHOTOGRAPHY AND PHOTOMETRY. Fundamentals of latent images, optical systems and methods, principles and applications of radiation detectors. Photoelectric and photographic photometry. Two lectures and four laboratory hours per week. Prerequisite: Physics 202 or consent of instructor. Credit, four hours.

301. CELESTIAL MECHANICS. Application of the laws of motion to satellites, planets, and stars. The two, three, and many body problems. Orbits and their perturbations. Lunar theory: tides and precession. Three lectures per week. Prerequisites: Mathematics 223; Physics 302. Credit, three hours.

302. ASTROPHYSICS. The laws of radiation are applied to stars and nebulae to determine color classifications, temperatures, and liminosities. Spectrum analysis: constitution of stars and interstellar matter. Three lectures per week. Prerequisite: Physics 303. Credit, three hours.

PHYSICS (26)

101-102. INTRODUCTION TO PHYSICS. An introductory course in physics with emphasis on mechanics, heat, light, sound, electricity, and magnetism. Prerequisite: Completion of the mathematics requirements under general education. Credit, three hours each.

101L-102L. INTRODUCTION TO PHYSICS. Selected experiments in general physics. All experiments must be performed during the scheduled laboratory period. Corequisite: Physics 101 for 101L and Physics 102 for 102L. Credit, one hour each.

121-122. CONCEPTS OF PHYSICS. A descriptive treatment of the basic principles of classical physics designed primarily for the non-science major. Motion, energy, thermal physics, sound, optics and electrical and magnetic phenomena are treated in a conceptual, largely non-mathematical format. Two lectures and one laboratory period per week. Credit, three hours each.

123. CONCEPTS OF MODERN PHYSICS. A descriptive treatment of relativity, atomic structure and nuclear physics primarily for the non-science major. In the laboratory period, selected topics of 20th century physics are investigated. Two lectures and one laboratory period per week. Credit, three hours.

131. ENERGY. A course covering the scientific, technological, economic, political and environmental factors associated with energy production and use. There are no mathematics or science prerequisites. Two lectures and one laboratory period per week. Credit, three hours.

201-202. GENERAL PHYSICS. An elementary treatment of mechanics, wave motion, sound, heat, light, electricity, and magnetism. Some calculus concepts are employed and the problem method is largely used. Two lectures and one recitation period per week. Corequisites: Mathematics 221-222. Credit, three hours each.

201L-202L. GENERAL PHYSICS LABORATORY. Selected experiments in general physics. All experiments must be performed during the scheduled laboratory period. Corequisite: 201 for 201L and 202 for 202L. Credit, one hour each.

203. INTRODUCTION TO MODERN PHYSICS. An elementary treatment of topics in modern physics. Two lectures and one recitation per week. Corequisite: Mathematics 103-104 or departmental consent. Credit, three hours.

204. LABORATORY SURVEY OF MODERN PHYSICS. A laboratory oriented course in which, through a sequence of experiments, a consistent picture of the development of modern physics is provided. The experiments treat Newtonian mechanics, the wave-particle quality of light, the development of the Bohr model of the atom, and nuclear physics. One recitation and two laboratory periods per week. Prerequisites: Physics 101 and 102, or consent of the department, and Physics 203. Credit, three hours.

250. RADIOISOTOPES. A lecture and laboratory course designed to provide a theoretical and practical knowledge of radioisotopes. The lecture topics include properties of radiation, nuclear reactions, health physics and applications of radioisotopes in research and industry. In the laboratory emphasis is placed on radiation detection and measurement with appropriate safety precautions. Two lectures and one laboratory period per week. Prerequisites: Completion of the mathematics and natural science requirements under general education. Credit, three hours.

301-302. PHYSICAL MECHANICS. An intermediate course covering the mechanics of single particles and systems of particles, fluids, rigid bodies, constrained motion and oscillations. An introduction to generalized coordinates and Lagrange's Equations, Hamilton's principle and Canonical Equations. Relativistic and wave mechanics is also considered. The vector method is emphasized. Three lectures and demonstrations per week. Prerequisites: Mathematics 221-222; Physics 201-202. Credit, three hours each.

303-304. ATOMIC AND NUCLEAR PHYSICS. A course covering the structure of matter, quantum structure of light, relativity, X-rays, wave nature of matter, solid state, and nuclear structure. Two lectures and one laboratory period per week. Prerequisites: Mathematics 221-222; Physics 201-202. Credit three hours each.

305. HEAT AND THERMODYNAMICS. An intermediate course on the thermal phenomena involving gases and solids. The topics included are thermometry, calorimetry, specific heat, expansion, heat transfer, introductory kinetic theory, laws of thermodynamics and applications. Three lectures and demonstrations per week. Prerequisites: Mathematics 221-222; Physics 201-202. Credit, three hours.

306. PHYSICAL OPTICS. An intermediate course in the fundamentals of physical optics. Topics included are theories of light, measurement of the speed of light, reflection, refraction, interference, diffraction, scattering, polarization and crystal optics, optical instruments and spectroscopy. Two lectures and one laboratory period per week. Prerequisites: Mathematics 221-222; Physics 201-202. Credit, three hours.

307. SOUND AND VIBRATION. An intermediate course in the fundamentals of periodic phenomena; wave motion in solid, liquid and gaseous media; and introductory acoustics. Two lectures and one laboratory period per week. Prerequisites: Mathematics 301; Physics 201-202. Credit, three hours.

401-402. THEORY OF ELECTRICITY AND MAGNETISM. An intermediate course in the theory of electricity and magnetism. Topics included are electrostatics, electrodynamics, current and alternating-current circuits, electromagnetic induction, dielectric theory, magnetic properties of matter and Maxwell's Equations. The vector method is used. Three lectures and one laboratory period per week. Prerequisites: Mathematics 221-222. Physics 301-302 or equivalent. Credit, four hours each.

404. MATHEMATICAL METHODS OF PHYSICS. An intermediate course covering physical dimensions and fundamental units, potential theory, vectors, matrices, tensors, hydrodynamics, electromagnetic radiation, and boundary value problems in general. Three lectures per week. Prerequisites: Mathematics 301; Physics 301-302. Credit, three hours.

405-406. ELECTRONIC PHYSICS. An intermediate course in applied electronics. One lecture and two laboratory periods each week. Prerequisites: Physics 303-304. Credit, three hours each.

407. QUANTUM MECHANICS. A course in the basic principles of quantum mechanics covering the Schrodinger equation, operators and transformation theory, angular momentum, atomic structure, and perturbation theory. Three lectures per week. Prerequisites: Mathematics 301, Physics 301-302 and 303-304. Credit, three hours.

408. THEORETICAL AND EXPERIMENTAL RESEARCH. A seminar course for senior physics majors covering selected topics on an intermediate level. Credit, two hours.

409. METHODS AND MATERIALS FOR PHYSICS TEACHERS. A course designed to acquaint prospective teachers of physics with current methods in physics education. Instruction will involve demonstrations of various approaches and experiences in handling materials used in teaching physics and physical science in the secondary school. Credit, three hours.

441. SELECTED TOPICS IN PHYSICS. An intermediate course covering subjects related to current developments in physics. Prerequisite: departmental permission. Credit, three hours.

PHYSICAL SCIENCE (27)

101. GEOLOGY. A study of the composition and structure of the earth's crust and the agents and processes modifying the earth. Laboratory work includes the interpretation of geologic maps and the identification of rocks, minerals and fossils. Three lectures and one 100-minute laboratory period per week. Credit, four hours.

201. PHYSICAL SCIENCE SURVEY. A survey of the physical sciences covering the fundamental principles of astronomy, chemistry, geology, meteorology, and physics. Three lectures and one laboratory period per week. Credit, four hours.

THE DEPARTMENT OF PSYCHOLOGY

Professors: Miller (Chairman), Matty

Assistant Professors: Kurtz

Associate Professor: Laskaris

Departmental Assistant: Brobeck

The objectives of the Department of Psychology are to lay a broad foundation for graduate studies in psychology, to provide students of other departments with the fundamentals of human behavior, and to contribute to the field of psychology by the conduct of basic and applied research.

The department offers courses required for state certification as a psychological examiner, some of the courses required for state certification as a school psychologist, and courses for students desirous of orientation in the field of psychology for general cultural development.

CURRICULUM OPTIONS IN PSYCHOLOGY

PSYCHOLOGY MAJOR All students who select Psychology as a major must complete the general education program as required of all students (See General Education Requirements). In addition, all majors in Psychology are normally required to take thirty-four (34) hours distributed as follows: Psychology 201, 202, 207, 316, 322, 323, 400, 413, 420, 421, 422.

The major sequence outlined above has been set up to serve as a guide and is not construed as a rigid or inflexible program. Although it is expected that most students will normally follow this sequence, a student may, with the approval of the department head, deviate from this sequence in order to carry out his total program.

MINOR

PSYCHOLOGY MINOR For a minor in psychology, eighteen hours distributed as follows are required: Psychology 201-202, 207, 316, 322, 400 or 413.

COURSE DESCRIPTIONS

PSYCHOLOGY (36)

201-202. INTRODUCTION TO GENERAL PSYCHOLOGY. A survey of several areas of psychological activity with emphasis on learning, perception, motivation, personality, physiological and neurological bases of behavior. Three lectures and one two-hour laboratory period per week (Lab. in 202 only). 201 is a prerequisite to all other courses in psychology. Credit, 201, three hours; 202, four hours.

204. EDUCATIONAL PSYCHOLOGY. The analysis and application of principles of learning, motivation and teaching to contemporary educational problems. Prerequisite: Psychology 201. Credit, three hours.

206. APPLIED PSYCHOLOGY. The application of psychological principles to the various fields of life such as employment psychology, training, human engineering, psychopharmacology, advertising and consumer research and individual differences. Prerequisite: Psychology 201. Credit, three hours.

207. SCIENTIFIC METHOD IN PSYCHOLOGY. An examination of the scientific method and its application to the study of behavior. Prerequisite: Psychology 201-202. Credit, three hours.

208. MENTAL HYGIENE. A study of the problems of human adjustment with emphasis on causation and prevention of common maladjustments. Prerequisite: Psychology 201. Credit, three hours.

290. INTRODUCTION TO COMPUTERS. A basic course covering the fundamental concepts involved in the utilization of computers as problem solving, information handling and control devices. Computer applications to various fields will be emphasized using BASIC and FOCAL as the major programming languages. One lecture and one two-hour lab per week. Credit, three hours.

302. EDUCATIONAL TESTS AND MEASUREMENTS. A study of the major statistical concepts and techniques employed by the psychologist and the educator. Methods of test construction, evaluation and description of tests used in schools, clinics and industry are included. Prerequisite: Mathematics 101-102 or Mathematics 103-104. Credit, three hours.

306. SYSTEM THEORY: PRINCIPLES AND APPLICATIONS. This course develops the theory of systems and the application of systems concepts and techniques to the design, analysis, and solution of problems in the areas of Education, Urban Affairs, man-machine systems, environmental problems, and the implementation of social programs. The course studies the theory and philosophy of generalized team problem-solving activities as applied to the solution of major human social problems. The component activities such as problem definition, setting objectives and value system design, systems synthesis, systems analysis, decision making, planning for action, and implementation are studied with reference to over-all models and relevant techniques. The techniques include a general introduction to modeling, simulation, and the behavioral, economic, and management aspects of design, utilizing computer facilities where possible. Prerequisite: Psychology 201, 290. Credit, three hours.

308. PERSONALITY. Primary emphasis in this course is given to theories of personality and the assessment of personality. Freud's Psycho-analytic theory, Jung's Analytic theory, Murray's Biosocial Theory, and Social Psychological theories are among some of the theories discussed. Prerequisites: Psychology 201, 316. Credit, three hours.

313. ELEMENTARY BIOPSYCHOLOGY. This course treats psychology as natural science. Phylogenesis of behavior, from reflexes to cultures, is considered, with considerable emphasis on broad principles. Elements of genetic, developmental, comparative, and physiological psychology are included. Prerequisites: Psychology 201-202, Biology 101-102, Junior Level Status. Credit, three hours.

316. DEVELOPMENTAL PSYCHOLOGY I. This course studies the development of individuals from birth through adolescence including the physical, emotional, intellectual, social and psychological factors of development. Prerequisite: Psychology 201. Credit, three hours.

317. DEVELOPMENTAL PSYCHOLOGY II. This course surveys the problems and methods of research leading to scientific concepts of psychological growth and development with emphasis on the evaluation and solution of development problems. Prerequisite: Psychology 316. Credit, three hours.

322. ELEMENTARY STATISTICS. This course covers graphic representation of data, measures of central tendency, variability, introduction to statistical inference, correlation and linear regression. Prerequisite: Mathematics 101-102 or Mathematics 103-104. Credit, three hours.

323. ADVANCED STATISTICS. A course covering experimental design, simple and complex analysis of variance, correlational analyses, and non-parametric statistics. Prerequisite: Psychology 322 or equivalent. Credit, three hours.

400. EXPERIMENTAL PSYCHOLOGY. A survey of the experimental methods and principles used in the design of experiments in psychology. Reading and interpretation of experimental literature in learning. Social sensation and perception are stressed. Three lectures and one two-hour laboratory period per week. Prerequisites: Psychology 201-202, 207, 322. Credit, four hours.

402. ABNORMAL PSYCHOLOGY. A study of mental disorders with emphasis on causes, symptoms, and treatment. Prerequisites: Psychology 201, 316, Junior Level Status. Credit, three hours.

404. PSYCHOLOGY OF EXCEPTIONAL CHILDREN. An intense study of the problems of exceptional children including mental deficiency, the gifted child and neurological, physical and sensory defects of the individual. Prerequisites: Psychology 201, 316. Credit, three hours.

409. READING CLINIC PRACTICUM. A laboratory course covering diagnosis, corrective and remedial procedures for dealing with various types of reading disabilities. Two laboratory periods per week. Credit, two hours.

411. INTRODUCTION TO GUIDANCE AND COUNSELING. An overview of guidance and counseling principles and techniques including tools and organization. Prerequisites: Psychology 201, 316, Junior Level Status. Credit, three hours.

412. PHYSIOLOGICAL PSYCHOLOGY. A study of the biological foundations of behavior with emphasis on the nervous system as the major agency in the organization and unity of the individual. Three lectures and one two-hour laboratory period per week. Prerequisites: Psychology 201-202, 207, 322, 400. Credit, four hours.

413. LEARNING AND MOTIVATION. The role of learning and motivation in behavior. Three lectures and one two-hour laboratory period per week. Prerequisites: Psychology 201-202, 207, 322, 400. Credit, four hours.

416. SOCIAL PSYCHOLOGY. A study of the impact of social institutions on the behavior of the individual and the impact of the individual on the group including a discussion of attitudes, beliefs, public opinion, propaganda, leadership, prejudice, and international tension. Prerequisites: Psychology 201, Junior Level Status. Credit, three hours.

420-421. RESEARCH SEMINAR. A course designed to meet the needs of students who desire to do individual research. Open by permission of the instructor. Prerequisites: Psychology 201, 207, 322, 323, 400, 413. Credit, two hours each.

422. HISTORY AND SYSTEMS OF PSYCHOLOGY. A course covering the history of current viewpoints with emphasis on behaviorism, functionalism, Gestalt psychology, and psychoanalysis. Designed primarily for students with considerable work in psychology. Prerequisites: Psychology 201-202, 207, 322, 323, 400, 413. Credit, three hours.

430. INDIVIDUAL READING AND CONFERENCE. This course is designed to provide the student the opportunity for individual extensive reading in a selected topic under the guidance of a faculty member of the psychology department. Specific activities will include (a) reading as directed, and (b) conferring with the instructor on the readings completed. A written report is required. Admission by permission of the instructor and the department chairman. Prerequisites: Psychology 201-202, 207, 322, Permission of the instructor, Junior Level Status. Credit, two hours. (May be repeated once for credit.)

436. BEHAVIOR MODIFICATION: THEORY AND PRACTICE. The application of principles derived from learning theory to individual behavior problems and classroom management. Includes an analysis of procedures for the establishment, maintenance and alteration of complex human behavior. Applications in educational settings will be emphasized. Prerequisite: Junior Level Status. Credit, three hours.

440. LEARNING DISABILITIES. A study of methods of instruction, behavioral management and psychological characteristics of children with specific learning disabilities. Methods relevant to perceptual problems, brain injury, brain dysfunctions, dyslexia, and developmental aphasia will be considered. Methods and techniques applicable to classroom learning will be emphasized. Prerequisite: Junior Level Status. Credit, three hours.

444. PSYCHOLOGY OF THE PHYSICALLY HANDICAPPED. A course covering psychological and rehabilitative principles involved in severe physical disabilities. Problems in academic, therapeutic, occupational, and social adjustment will be considered. Prerequisite: Junior Level Status. Credit, three hours.

THE DEPARTMENT OF SOCIOLOGY, URBAN AFFAIRS AND SOCIAL WORK

Associate Professor, Emeritus: Thomasson

Assistant Professors: Washington, Glaeseman, Lustfield, Odekunle

Instructors: *Brittingham, Scott (Chairman)

The Department of Sociology, Urban Affairs and Social Work offers a selection of courses directed toward the scientific study of human society. It offers students opportunities for developing the central core of a liberal education and prepares them for entrances to graduate school. Service courses for students majoring in other areas are also provided. The Department offers majors in Sociology, Urban Affairs and Social Work and a minor in Sociology and Social Work.

The Sociology major provides an in-depth introduction to academic discipline of Sociology, to its methods and to its findings. This major is appropriate for those students who wish to pursue graduate study in Sociology and for those who wish to qualify for positions requiring no graduate professional education in various agencies.

Although a Master's degree with a major in sociology is usually the minimum requirement for employment as a Sociologist, individuals with a Bachelor's degree in sociology may be able to secure other positions in this or related fields.

Using the tools of sociology, political science and economics, the Urban Affairs major examines public policy for the management and solution of urban problems. He is expected to complete the program conversant with two areas of specialization, and a general framework for policy analysis and implementation, equipped to serve as a beginning practitioner at the federal, state or local level.

The major in social work sets forth a rationalized social and behavioral science foundation in conjunction with social welfare and social work practice courses which together seek to prepare a student for beginning professional practice. Thus, the main emphasis of this major is to significantly improve the preparation of baccalaureate level social service manpower and prepare students who wish to pursue graduate study in Social Work.

CURRICULUM OPTIONS IN SOCIOLOGY, URBAN AFFAIRS AND SOCIAL WORK

SOCIOLOGY MAJOR All students who select Sociology as a major must complete the general education program as required of all students (See General Education Requirements). In order to graduate with a major in Sociology, a student must successfully complete 121 hours. Required courses are: Sociology 201, 303, 312, 314, 401; Fifteen credit hours of Sociology electives, of which six must be at or above the 300 level; plus Introduction to Computers, Elementary Statistics, Advanced Statistics, and six credits in the same Foreign language.

SOCIOLOGY MINOR For a minor in Sociology, eighteen hours including the following are required: Sociology 201, 303, and 312, nine additional credit hours in Sociology of which six hours must be at or above the 300 level.

GENERAL URBAN AFFAIRS MAJOR All students who select Urban Affairs as a major must complete the general education program as required of all students

*Leave of absence

(See General Education Requirements). To graduate with a major in Urban Affairs, a total of 121-125 hours must be successfully completed, including semester hours drawn from various disciplines. Required courses for the major are: Psychology 201; Sociology 201, 202 or 203, 420, 303, 304, and 305; Elementary Statistics, Introduction to Computers, Economics 201-202; Urban Affairs 306, 321, 350, 400, 441-442, 450; An Urban Affairs elective and Business 301.

URBAN AFFAIRS MAJOR – BUSINESS ADMINISTRATION OPTION For the Business Administration option in Urban Affairs, a total of 121-125 semester hours must be successfully completed including fifty-seven semester hours drawn from various departments (See General Urban Affairs Major) and 18 hours from the Department of Economics and Business Administration. Required courses are: Sociology 201, 202 or 203, 303, 304 and 305; Introduction to Computers; Business 108, 205, 310, 401 and two courses selected from Business 206, 301, 405, or 427; Elementary Statistics; Economics 201 and 202; and Urban Affairs 306, 314, 321, 350, 400, 441-442, 450 and an Urban Affairs elective.

URBAN AFFAIRS MAJOR – ECONOMICS OPTION For the Economics option in Urban Affairs, the major must complete the general education program as required of all students (See General Education Requirements). A total of 123-128 semester hours must be successfully completed including 51-52 semester hours drawn from various departments (See General Urban Affairs Major) and eighteen hours from the Department of Economics and Business Administration. Required courses are: Sociology 201 and 202 or 203, 303, 304, and 305; Introduction to Computers; Economics 201 and 202, 307, Urban Affairs/Economics 321 and two courses selected from Economics 314, 411, 414, or 418; and Urban Affairs 306, 314, 350, 400, 441-442, 450 and an Urban Affairs elective.

URBAN AFFAIRS MAJOR – COMPUTER SCIENCE OPTION For the Computer Science option in Urban Affairs, a total of 123-124 semester hours must be successfully completed including 54-55 hours drawn from various departments (See General Urban Affairs Major) and 21 hours from the Department of Mathematics. Required courses are Sociology 201, 202 or 203, 303, 304 and 305; Mathematics 231-232, 208-209, 302, 308 and 211; Economics 201 and 202; Elementary Statistics; and Urban Affairs 306, 314, 321, 350, 400, 441-442, 450 and an Urban Affairs elective.

SOCIAL WORK MAJOR All students who select Social Work as a major must complete the general education program as required of all students (See General Education Requirements). Students should note that in order to graduate with a major in Social Work, a total of 122-124 hours must be successfully completed, including thirty-six semester hours in Social Work. Required courses for a major are: Social Work 303, 314, 315, 316, 405, 411, 441, 442 and 450; Psychology 201; Economics 201; Sociology 201, 203, 401, 420; Urban Affairs 306, 400; Business 108 and 301; Introduction to Computers and Elementary and Advanced Statistics.

SOCIAL WORK MINOR For a minor in Social Work, twenty-one hours including the following are required: Social Work 303, 315, 316, 405, plus nine additional hours in Social Work.

SOCIAL WORK – URBAN AFFAIRS INTERNSHIP-REGULATIONS

Candidates for the Bachelors degree in Social Work and Urban Affairs majors who fail to complete their internship experience will be required to

repeat the course. An additional week to be spent in preparation and evaluation is required of all candidates. In most cases, students will live on campus or at home during their internship period. However, in some instances it may be necessary for students to maintain at their own expense, living quarters in the community in which they perform their internship. Additionally, cooperative arrangements with internship coordinating institutions, formally approved by the college, such as the Washington Center for Learning Alternatives, may include the provision of living quarters, with the collection of fees by the college, occurring before the beginning of the internship.

Those students who wish to perform internships during the first semester should apply on or before the first day of registration the previous semester, i.e. if they wish to begin an internship in October, they should have applied January.

Supervision will be provided on-site by field supervisors, but coordination will be accomplished by the department of sociology, urban affairs, and social work.

COURSE DESCRIPTIONS

SOCIOLOGY (37)

201. INTRODUCTION TO SOCIOLOGY. Devoted to description and analysis of group life and to the development of a systematic conceptual framework. Credit, three hours.

202. SOCIAL DEVIATION. A sociological study of selected social problems, such as crime, juvenile delinquency, and alcoholism. Prerequisite: Sociology 201. Credit, three hours.

203. SOCIAL PROBLEMS. A sociological treatment of contemporary social problems. Prerequisite: Sociology 201. Credit, three hours.

205. ANTHROPOLOGY. An introductory course. Surveys records of the emergence and development of man. Major emphasis is placed upon the development of culture. Credit, three hours.

206. CULTURAL ANTHROPOLOGY. Human culture and its role in the determination of man's behavior. The relationships of kinship, political, economic and religious institutions within culture systems, with a particular emphasis upon the operation of these institutions in non-Western societies. Prerequisite: Sociology 201. Credit, three hours.

260. INDUSTRIAL SOCIETY AND HUMAN BEHAVIOR. An analysis of the interface between industrialization and human behavior. The course will focus on the social and psychological forces manifesting themselves in the factories and offices of industry, as well as the behavioral consequences of automation and cybernation. Among the topics dealt with are: Organizational behavior, alienation, systems of control, occupational differentiation, work and leisure, and job satisfaction. Prerequisite: Sociology 201. Credit, three hours.

290. INTRODUCTION TO COMPUTERS. See Psychology 290.

301. JUVENILE DELINQUENCY. The delinquency problem. Factors associated with delinquency, preventive measures, rehabilitation. Prerequisites: Sociology 201. Credit, three hours.

303. SOCIAL PSYCHOLOGY. An intensive study of the factors and processes which shape the individual in group life. Prerequisite: Sociology 201. Credit, three hours.

304. RACIAL AND ETHNIC STRATIFICATION. A study of the basic nature of interracial relations. Analysis of problems connected with the larger minority groups in the United States. Prerequisite: Sociology 201. Credit, three hours.

305. URBAN SOCIOLOGY. The ecology, social processes, organizations, and problems of the urban community. Recent developments are emphasized. Prerequisite: Sociology 201. Credit, three hours.

306. SOCIOLOGY OF RELIGION. Social context of religious ideologies and structures with special reference to religion in America. Prerequisite: Sociology 201. Credit, three hours.

308. CRIMINOLOGY. The nature and extent of crime in the United States, theories of crime, problems of rehabilitation. Prerequisite: Sociology 201. Credit, three hours.

310. SOCIAL STRATIFICATION. Analysis of stratification theories and of major empirical research in the area. Considers effects of social stratification in the United States. Prerequisite: Sociology 201. Credit, three hours.

312. SOCIOLOGICAL THEORIES. Description and critical study of the more important sociological theories of the nineteenth and twentieth centuries. Prerequisite: Sociology 201. Credit, three hours.

314. METHODS OF RESEARCH IN SOCIOLOGY. An introduction to research problems, design, and procedures in sociology. Prerequisite: Sociology 201. Credit, three hours.

320. POLITICAL SOCIOLOGY. Study of the social determinants of political structures and behaviors. Prerequisite: Sociology 201. Credit, three hours.

322. ELEMENTARY STATISTICS. A course covering graphic representation of data, measures of central tendency, variability, introduction to statistical inference, correlation and linear regression. Credit, three hours.

323. ADVANCED STATISTICS. A course covering experimental design, correlational analysis, single and complex analysis of variance and non-parametric statistics. Prerequisite: Sociology 322 or equivalent. Credit, three hours.

330. POPULATION ANALYSIS. The social biology of man. A study of the inter-relationships of man and his environment and the implications of the growth of human populations. Jointly offered by the Department of Sociology and Agriculture and Natural Resources. Prerequisite: consent of the instructor. Credit, three hours.

352. RACE, ETHNICITY, AND PUBLIC POLICY An intensive investigation and analysis of the historic development and implementation of public policy toward ethnic groups with particular reference to the efforts by federal and state agencies to diminish discrimination against minorities. Examined will be the roles of pressure groups, agencies, and the legal system. Credit, three hours.

399. INDEPENDENT STUDY. Individual reading or field study by students wishing to pursue a special interest within the field of sociology, but not covered by one of the regular sociology courses. Prerequisite: consent of the instructor. Credit, one, two or three hours.

401. THE FAMILY. Historical evolution of family structures and functions, current changes and problems. Prerequisite: Sociology 201. Credit, three hours.

403. RESEARCH PLANNING. Preparation for a student research project; entails supervised research planning, including background reading to delimit the area of investigation and development of the research design, data collection instruments, and plans for analysis. Prerequisite: Sociology and Urban Affairs 314 (Methods of Research). Credit, three hours.

404. ADVANCED RESEARCH METHODS. Execution of a student research project; involves supervised research participation, data analysis, and interpretation of results. Prerequisite: Sociology 314 and 403 (Research Planning) or 314 and consent of instructor. Credit, three hours.

406. SOCIOLOGY OF LAW. A general treatment of the social origins and consequences of law and legal process. Special emphasis is placed on problems of legal sanctions. Review of analysis of selected areas of theory and research in the sociology of law. Topics covered will include such areas as civil litigation and the civil courts, police operations and the sociology of law and order, educational laws and the operations of educational institutions, and sociological theories of justice and the operations of legal agencies. Some attention is paid to law and lawlike phenomena and other sanctioning mechanisms in other societies,

including primitive societies, but the main focus is on American society. Prerequisites: Sociology 201, 202 or 203 and 310 or 308 for Sociology majors. For all other majors, Sociology 201 and consent of instructor. Credit, three (3) hours.

408. SOCIOLOGY OF POVERTY. An analysis of institutional structures which tend to maintain poverty in industrialized societies, particularly the United States, in the context of social stratification. Cross-cultural data will be used for illustrative purposes. Prerequisites: Sociology 201 and 310. In the absence of 310, consent of the instructor is required. Credit, three (3) hours.

410. THE SMALL GROUP. Critical analysis of major theories and current research on the small group. Impact of the small group on socialization, communication, roles, leadership, perception, conformity. Organization and function of small groups. Case studies of small groups in gangs, industry, the military, the school, family interaction. Prerequisite: Sociology 303. Credit, three hours.

420. COMPLEX ORGANIZATIONS. Analysis of the structure of complex organizations in their cultural context. Sociological factors in industrial, economic and social organizations. Prerequisite: consent of instructor. Credit, three hours.

430. SENIOR SEMINAR IN SOCIOLOGY. An examination and discussion of selected topics in Sociology. Prerequisite: Consent of instructor. Credit, three hours.

URBAN AFFAIRS (38)

103. URBAN GEOGRAPHY. See Geography 103.

106. URBAN ECOLOGY. See Natural Resources 106.

212. STATE AND LOCAL GOVERNMENT. See Political Science 212.

214. METROPOLITAN POLITICS. See Political Science 214.

250. INTRODUCTION TO URBAN AFFAIRS. A systematic exposition of the general framework of public policy formulation, using selected topics, as well as representatives from governmental and private agencies in seminar meetings and conferences. In addition, students will be assigned readings and special problems for their own investigation, designed to familiarize them with the resources in their areas of specialization and the competencies required to perform as a beginning Urban Affairs practitioner. Credit, four (4) hours.

306. SYSTEM THEORY: PRINCIPLES AND APPLICATIONS. See Psychology.

307. THE PHILOSOPHICAL FOUNDATIONS OF URBAN PROBLEMS. See Philosophy 307.

308. COMMUNITY ORGANIZATION AND DEVELOPMENT. Concerned with the nature of traditional community organization, this course considers theories of social change as they relate to the individual's role as a change agent within the community and organization settings. Examined will be various techniques for inducing organizational changes, advantages and disadvantages of various approaches, their potential effects, resistance and methods of handling the conflicts of forces involved in generating change. Prerequisite: Sociology 201 or consent of instructor.

309. FOUNDATIONS OF COMMUNITY RECREATION. See Physical Education 309.

314. METHODS OF RESEARCH IN URBAN AFFAIRS. A introduction to research problems, design and procedures and techniques specifically applicable to urban problems. Credit, three (3) hours.

321. URBAN ECONOMICS. See Economics 321.

352. RACE, ETHNICITY, AND PUBLIC POLICY. See Sociology 352.

354. URBAN EDUCATION AND PUBLIC POLICY. An interdisciplinary course which utilizes the tools of macroeconomic and microeconomic theory to consider the evolution and

development of urban educational systems with particular reference to modes of finance, manpower development and training, the structure of federal, state and local government, as well as contemporary issues of public policy. Prerequisite: Sociology 201 or Econ. 201 or consent of instructor. Credit, three (3) hours.

399. INDEPENDENT STUDY. Individual reading or field study by students wishing to pursue a special interest within the field of social work or urban affairs covered by one of the regular courses. Prerequisite: consent of the instructor. Credit, one, two or three hours.

400. PROGRAMS PLANNING AND EVALUATION. Primarily concerned with planning and evaluation of social programs, this course examines past and present attempts on the part of private and public institutions to deal with complex problems presented by the urban environment. Specifically addressed are questions relating to the strategies available for the transformation of policy/goals into social service delivery systems and the alternative methods available for the evaluation of social service delivery systems. Credit, three (3) hours.

441-442. URBAN SEMINAR I, II: METHODS OF URBAN POLICY ANALYSIS. Using selected major issues which confront metropolitan society, together with proposed strategies for intervention, entire policy making processes will be considered with particular emphasis on the development of analytic skills. The frameworks for analysis are presented in class. Students apply these frameworks to selected areas of special interest in preparation for the required senior reports. Credit, three (3) hours.

Second half of course will be conducted as a block course for a period of three weeks with students attending class three hours daily. Credit, three hours.

450. URBAN AFFAIRS INTERNSHIP. Following participation in Urban Seminar II, students will explore and observe urban issues as they arise, are debated and eventually resolved in nearby urban communities. Individual and group observation and study will take place under the guidance of the college coordinator and in participation with a variety of citizen and governmental agencies. The student is responsible for making his own housing and transportation arrangements. Assistance in locating housing will be provided by the college. Prerequisite: Urban Seminar II. Credit, twelve hours.

SOCIAL WORK (39)

250. THE FIELD OF SOCIAL WORK. A systematic presentation of the major areas with an introduction to their general problems and techniques. Prerequisite: Sociology 201. Credit, three (3) hours.

303. HUMAN BEHAVIOR AND SOCIAL ENVIRONMENT. An intensive study of the factors and processes which shape the individual in group life. Emphasis will be placed on various influences such as attitudes, beliefs, public opinion, propaganda, leadership and prejudice. Credit, three (3) hours.

314. METHODS OF RESEARCH IN SOCIAL WORK. An introduction to research problems, design and, procedures and techniques specifically applicable to social work. Credit, three (3) hours.

315. SOCIAL WELFARE POLICIES AND PROGRAMS I. Description of the nature of social welfare services and programs and analysis of their historical development. Basic trends in the social services are related to political and social developments in Western Europe and the United States. Focus is on the dynamic relationship between social work as an institution and modern industrialism. Credit, three (3) hours.

316. SOCIAL WELFARE POLICIES AND PROGRAMS II. Examination of basic needs in American society for economic security and welfare; social agencies; sociological aspects of social work as a profession. Major gaps between needs and resources and social policy implications are discussed. Emphasis on the federal, state and local, public and private dimension of the development of social welfare policy with a focus on institutional influence over the development of social welfare policy in America. Prerequisite: Social Work 315. Credit, three (3) hours.

411. INTRODUCTION TO GROUP DYNAMICS. Students form small learning groups to experience various aspects of group life (group goals, leadership, communication and decision-making, conflict, cohesion and norms, culture and stages of group development) and participate in total class sessions for mini-lectures and demonstrations of course content. Through readings, class discussions, and experiential learning in these task groups, students integrate theory and action in group dynamics. The instructor serves as resource person and consultant to the small groups to foster their mutual aid in learning. Credit, three hours.

441. SOCIAL WORK SEMINAR I (SOCIAL WORK PRACTICE). An introduction to the principles and practices of social work practice. Deals with the structure of social welfare services from generic models of social work practice. Focus on differential application of common concepts and principles to a broad range of situations requiring social work intervention. Credit, three (3) hours.

442. SOCIAL WORK SEMINAR II. Social Work Seminar II will be conducted as a block course for a period of three weeks with students attending class three hours daily. Prerequisite: Social Work 441. Credit, three (3) hours.

450. SOCIAL WORK FIELD EXPERIENCE. Following participation in Social Work Seminar II, students will explore and observe social work issues as they arise, are debated and eventually resolved in nearby communities. Individual and group observation and study will take place under the guidance of the college coordinator and in participation with a variety of social welfare, private, and governmental agencies. Field experience is required in a social agency under the supervision of an agency staff member approved by the department. The student is responsible for making his own housing and transportation arrangements. Assistance in locating housing will be provided by the college. Prerequisite: Social Work Seminar II. Credit, twelve (12) hours.

TECHNOLOGY PROGRAM

The purpose of the program is to provide an opportunity for graduates of associate degree technology programs to earn a bachelor of technology degree in two additional years of college work.

A unique feature of the program is that it involves an inverse approach — the student completes an associate degree in a technology program and transfers to a bachelor of technology degree program with little or no loss of credit. The student will be accepted as a junior but he will enroll in a wide range of courses from freshman to senior level. In addition to general education courses, such as English and History, he will take further work in his area of major concentration — business, engineering, or public and community service technology.

Upon completion of the program, the student will be qualified to pursue work toward graduate degrees in technology and eligible for middle management positions in business, government, and industry.

ELIGIBILITY

Any student who has earned an associate degree in a technology program at an accredited community college or technical institute is eligible for admittance to the Technology Program.

ACADEMIC REQUIREMENTS FOR THE BACHELOR OF TECHNOLOGY DEGREE

1. Completion of a minimum total of 121 semester hours of college work, including credit for all courses transferred, with a cumulative grade point

average of 2.00 (C) or above. The total number of hours varies with many of the technology programs. To be eligible for graduation, the student must satisfactorily complete all the requirements of the technology program in which he is enrolled.

2. Completion of a minimum of 40 semester hours of prescribed general education courses, distributed as follows: Basic Intellectual Skills – 10 hours, Humanities – 12 hours, Mathematics – 6 hours, Natural Sciences – 6 hours, and Social Sciences – 6 hours.
3. Satisfactory completion of a minimum of 30 semester hours of credit at Delaware State College.

CURRICULUM OPTIONS IN TECHNOLOGY

Listed below are the curriculum options that comprise the Technology Program. The various program options are listed directly under the departments which administer the program options. Interested students should contact the sponsoring department for detailed information. Students should be reminded that admission to the program is based upon the evaluation and approval of each applicant's credentials. These evaluations will be done by the Delaware State College Admissions officer and the Departmental Chairman of the sponsoring department.

TECHNOLOGIES (46)

THE DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES

Curriculum in Agri-Business Technology

THE DEPARTMENT OF ECONOMICS AND BUSINESS ADMINISTRATION

CURRICULUM IN BUSINESS ADMINISTRATION TECHNOLOGY (420)

Accounting Option

Hotel-Motel-Restaurant Management Option

Marketing – Management Option

Retail Management Option

CURRICULUM IN BUSINESS TECHNOLOGY (421)

Executive Secretarial Option

General Business Administration Option

CURRICULUM IN EXECUTIVE SECRETARIAL TECHNOLOGY (450)

CURRICULUM IN EXECUTIVE SECRETARIAL TECHNOLOGY (SPECIAL) (451)

THE DEPARTMENT OF MATHEMATICS

CURRICULUM IN DATA PROCESSING TECHNOLOGY (250)

Data Processing Option

THE DEPARTMENT OF HOME ECONOMICS

CURRICULUM IN FOOD SERVICE MANAGEMENT TECHNOLOGY (180)

THE DEPARTMENT OF PHYSICS AND ASTRONOMY

CURRICULUM IN ARCHITECTURAL/ENGINEERING DESIGN TECHNOLOGY (260)

Architectural Design Option

Engineering Design Option

CURRICULUM IN ARCHITECTURAL ENGINEERING TECHNOLOGY (261)

CURRICULUM IN CIVIL ENGINEERING TECHNOLOGY (262)

CURRICULUM IN ELECTRONICS/ELECTRICAL ENGINEERING TECHNOLOGY (263)

Electrical Engineering Option

Electronics Engineering Option

Electronics/Electrical Engineering Option

CURRICULUM IN ENGINEERING DRAFTING TECHNOLOGY (264)

CURRICULUM IN ENGINEERING TECHNOLOGY (265)

CURRICULUM IN INDUSTRIAL ENGINEERING TECHNOLOGY (266)

CURRICULUM IN MANUFACTURING ENGINEERING TECHNOLOGY (267)

CURRICULUM IN MECHANICAL ENGINEERING TECHNOLOGY (268)

Mechanical Engineering Design Option

Mechanical Engineering Technician Option

THE DEPARTMENT OF CHEMISTRY

CURRICULUM IN CHEMICAL LABORATORY TECHNOLOGY (240)

CURRICULUM IN ENVIRONMENTAL ENGINEERING TECHNOLOGY (241)

CURRICULUM IN FIRE PROTECTION TECHNOLOGY (242)

THE DEPARTMENT OF SOCIOLOGY, URBAN AFFAIRS AND SOCIAL WORK

CURRICULUM IN CRIMINAL JUSTICE TECHNOLOGY (370)

Correctional Science Option

Police Science Option

CURRICULUM IN HUMAN SERVICES TECHNOLOGY (371)

THE DEPARTMENT OF BIOLOGY

CURRICULUM IN DENTAL ASSISTING TECHNOLOGY (230)

CURRICULUM IN MEDICAL LABORATORY TECHNOLOGY (231)

THE DEPARTMENT OF ENGLISH

CURRICULUM IN JOURNALISM (010)

CURRICULUM IN LIBRARY TECHNOLOGY (012)

THE DEPARTMENT OF EDUCATION

CURRICULUM IN SCIENCE EDUCATION TECHNOLOGY (270)



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*Part of the year

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 Constance Davis..... *Resident Manager*
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 Bertie L. Hamilton..... *Assistant Resident Manager*
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 *Charles Henderson, B.S. *Assistant Director*
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 Suzan White *Senior Secretary*
 David Johnson *Postal Supervisor*
 Dorothy Durham *Postal Clerk*
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*Part of Year

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 Rita Smith *In-Put Technician*

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 Thomas T. Donovan *Work Order Coordinator*

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 Ruffin Cador *Supervisor of Security*
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 Hayward Dredde *Shift Commander*
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 Chairman, Department of Home Economics
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 M.S., The Ohio State University
 Ed.D., Pennsylvania State University

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 Professor Economics
 B.A., Murray State College
 Ph.D., University of Kentucky

ANTHONY BODOLA
 Professor of Biology and Natural Resources
 B.A., Fairmont State College
 M.S., University of West Virginia
 Ph.D., The Ohio State University

HOWARD B. BROCKINGTON
 Professor of Music Education
 Chairman, Department of Music
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| | In-State | Out-of-State | Total |
|----------------------|----------|--------------|-------------|
| Boarding Students | 270 | 478 | 748 |
| Commuting Students | 784 | 80 | 864 |
| Resident Only | 46 | 94 | 140 |
| Continuing Education | 310 | | 310 |
| Part-Time | 105 | | 105 |
| | | | <hr/> 2,167 |

SECOND SEMESTER 1976-77

| | In-State | Out-of-State | Total |
|----------------------|----------|--------------|-------------|
| Boarding Students | 198 | 351 | 549 |
| Commuting Students | 727 | 77 | 804 |
| Resident Only | 101 | 210 | 311 |
| Continuing Education | 282 | | 282 |
| Part-Time | 100 | | 100 |
| | | | <hr/> 2,046 |



STATES, FOREIGN COUNTRIES, AND TERRITORIES REPRESENTED IN STUDENT ENROLLMENT

STATE

Alabama
California
Colorado
Connecticut
Delaware
District of Columbia
Florida
Georgia
Illinois
Indiana
Kentucky
Maine
Maryland
Massachusetts
Michigan
Mississippi
Nevada
New Jersey
New York
North Carolina
Ohio
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia

FOREIGN COUNTRIES

Bermuda
Dominican Republic
Estonia
Ghana
India
Indonesia
Iran
Jordan
Nigeria
Panama
Phillipines
Togo
OTHER
Puerto Rico
Virgin Islands

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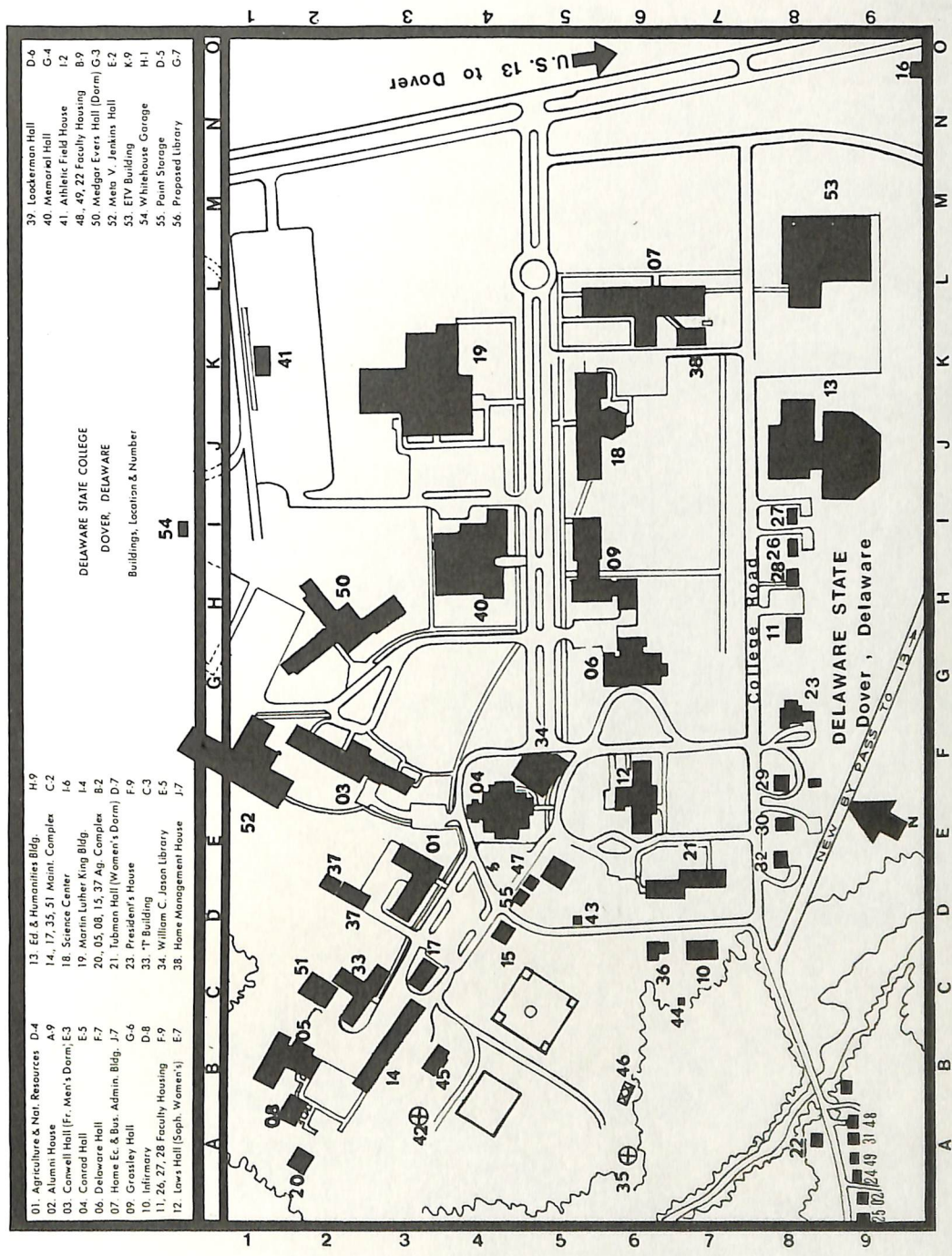
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