

DELAWARE

STATE

COLLEGE

1982-1984

CORRESPONDENCE DIRECTORY

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SECTION 504 COORDINATOR	736-4982
SECURITY	736-5127, 5129
VETERANS' AFFAIRS	736-5213, 5214

All administrative offices of the College are open 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 736-5155.

Delaware State College does not discriminate on the basis of race, creed, ethnic origin, sex or handicap in the recruitment, admission, and operation of its programs and activities.



The Nicholas Lookerman House

DELAWARE STATE COLLEGE

DOVER, DELAWARE 19901

Catalog Edition
1982-1984

ACADEMIC CALENDAR 1982-83

FIRST SEMESTER

August 29, 1982 (Sunday)	Residence Halls Open
August 30-September 1 (Monday-Wednesday)	Freshman Orientation
September 2 (Thursday)	Registration
September 3 (Friday)	Process Day
September 4-6 (Saturday-Monday)	Labor Day Recess
September 7 (Tuesday)	Classes Begin
September 7 (Tuesday)	Changes in Class Schedule Begin
September 7 (Tuesday)	Late Registration Begins
September 15 (Wednesday)	Late Registration Ends
September 15 (Wednesday)	Last Day for Adding Classes
September 24 (Friday)	Last Day for Grade Changes
October 13-15 (Wednesday-Friday)	Fifth Week Evaluations
October 19 (Tuesday)	Last Day to Remove Incompletes
October 23 (Saturday)	Homecoming
October 31 (Sunday)	Parents' Day
November 2 (Tuesday)	Election Day
November 9 (Tuesday)	Last Day to Drop Courses
November 15-18 (Monday-Thursday)	Pre-Registration
November 25-28 (Thursday-Sunday)	Thanksgiving Recess
November 29 (Monday)	Classes Resume
December 16-21 (Thursday-Tuesday)	Final Examinations
December 22 (Wednesday)	Christmas Recess Begins

SECOND SEMESTER

January 9, 1983	Residence Halls Open
January 10-12	Freshman Orientation
January 13	Registration
January 17	Martin Luther King Day Recess
January 18	Classes Begin
January 18	Changes in Class Schedules Begin
January 18	Late Registration Begins
January 25	Late Registration Ends
January 25	Last Day for Adding Classes
February 4	Last Day for Grade Changes
February 6	Founder's Day
February 16-18	Fifth Week Evaluations
February 25	Last Day to Remove Incompletes
March 7-11	Spring Recess
March 14	Classes Resume
March 28	Last Day to Drop Courses
April 1-4	Easter Recess
April 5	Classes Resume
April 5-8	Pre-Registration
May 12, 13, 16, 17 (Thurs., Fri., Mon., Tues.)	Final Examinations
May 22 (Sunday)	Commencement

ACADEMIC CALENDAR 1983-84

FIRST SEMESTER

August 28, 1983 (Sunday)	Residence Halls Open
August 29-31 (Monday-Wednesday)	Freshman Orientation
September 1 (Thursday)	Registration
September 2 (Friday)	Process Day
September 3-5 (Saturday-Monday)	Labor Day Recess
September 6 (Tuesday)	Classes Begin
September 6 (Tuesday)	Changes in Class Schedules
September 6 (Tuesday)	Late Registration Begins
September 14 (Wednesday)	Late Registration Ends
September 14 (Wednesday)	Last Day for Adding Classes
September 23 (Friday)	Last Day for Grade Changes
October 12-14 (Wednesday-Friday)	Fifth Week Evaluations
October 18 (Tuesday)	Last Day to Remove Incompletes
October 30 (Sunday)	Parent's Day
November 2 (Wednesday)	Election Day
November 8 (Tuesday)	Last Day to Drop Courses
	Homecoming
November 14-17 (Monday-Thursday)	Pre-Registration
November 24-27 (Thursday-Sunday)	Thanksgiving Recess
November 28 (Monday)	Classes Resume
December 15-20 (Thursday-Tuesday)	Final Examinations
December 21 (Wednesday)	Christmas Recess Begins

SECOND SEMESTER

January 8, 1984 (Sunday)	Residence Halls Open
January 9-11 (Monday-Wednesday)	Freshman Orientation
January 12 (Thursday)	Registration
January 13 (Friday)	Process Day
January 16 (Monday)	Martin Luther King Day Recess
January 17 (Tuesday)	Classes Begin
January 17 (Tuesday)	Changes in Class Schedules Begin
January 17 (Tuesday)	Late Registration Begins
January 24 (Tuesday)	Late Registration Ends
January 24 (Tuesday)	Last Day for Adding Classes
February 3 (Friday)	Last Day for Grade Changes
February 5 (Sunday)	Founder's Day
February 16, 17, 20 (Thurs., Fri., Mon.)	Fifth Week Evaluations
February 27 (Monday)	Last Day to Remove Incompletes
March 12-16 (Monday-Friday)	Spring Recess
March 19 (Monday)	Classes Resume
March 27 (Tuesday)	Last Day to Drop Courses
April 20-23 (Friday-Monday)	Easter Recess
April 24 (Tuesday)	Classes Resume
April 24-27 (Tuesday-Friday)	Pre-Registration
May 10, 11, 14, 15 (Thurs., Fri., Mon., Tues.)	Final Examinations
May 20 (Sunday)	Commencement

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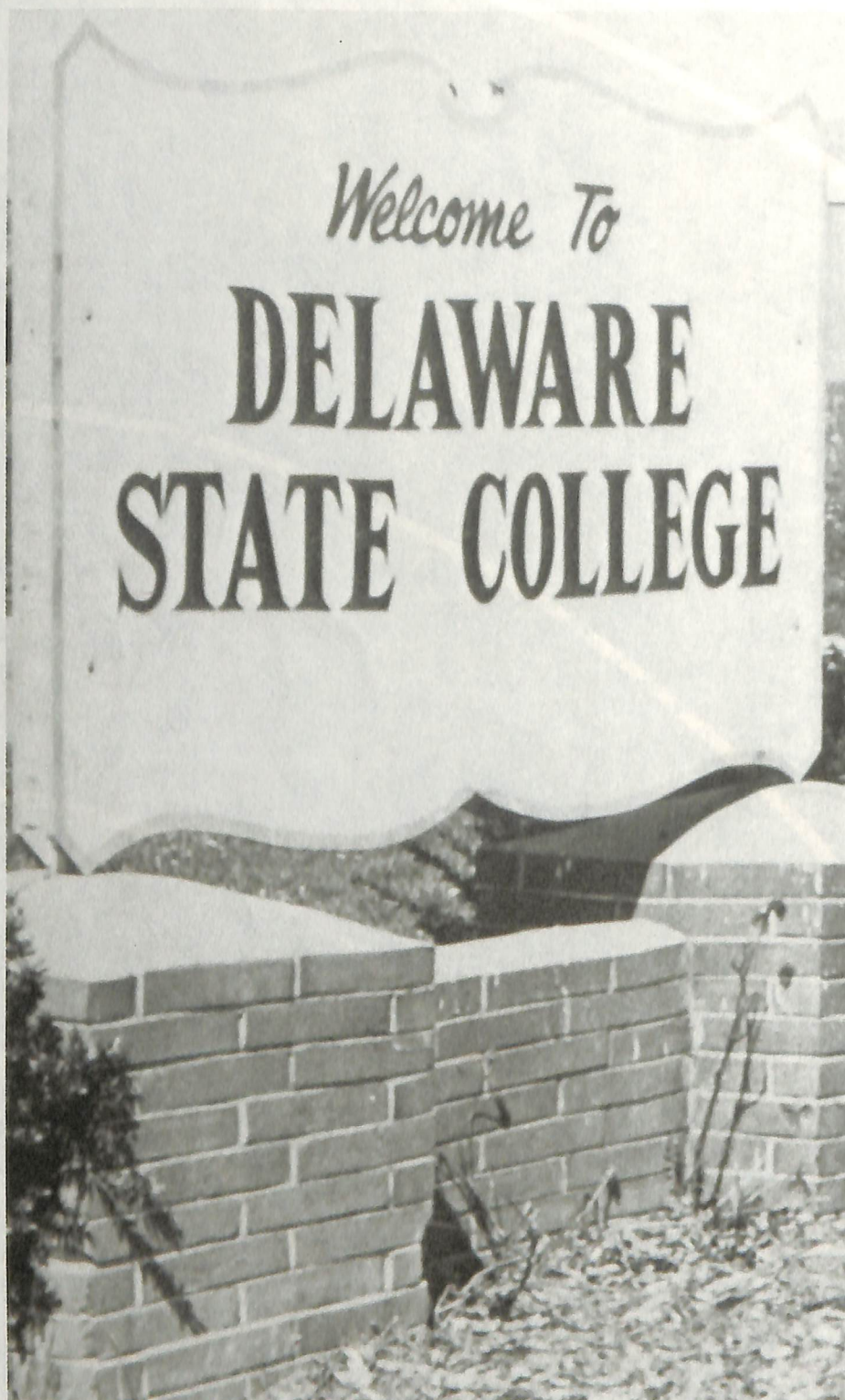
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The provisions of this publication are not to be regarded as an irrevocable contract between the student and Delaware State College. The college reserves the right to revise any provision or regulation at any time within the student's term of enrollment 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.

THE COLLEGE

Philosophy
History
Accreditation
Board of Trustees
The Campus and Facilities
Future Developments



THE COLLEGE

PHILOSOPHY

Delaware State College, a progressive liberal arts institution, 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 college community combine to ensure that each student receives a thorough marketable education.

The College recognizes that education is attained, in part, through the activities of the students themselves. It strives to provide and maintain a corps of scholars, lecturers, and educators dedicated to the enlightenment of mankind.

To this end, the College endeavors to:

- provide a well-rounded liberal arts education with a concentration in either the sciences or humanities.
- provide service to the citizens of the state by increasing their ability to make practical application of knowledge.
- develop conceptual thinking ability and nurture the inquiring mind of each student.
- develop student skills in oral and written communication.
- encourage optimum physical development and the safeguarding of health.
- 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 drawn from various sections of the United States, as well as Africa, South America, Asia, and the Middle East, and it is expected to reach 3,000 during the 1984-85 academic year. 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, chartered by the State of Delaware, 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 President of the College is a voting member of the Board. The Governor serves as an ex-officio member.

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. The city of Dover is located on bus routes to major 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 areas of Rehoboth Beach, Delaware; Ocean City, Maryland; and Cape May, New Jersey. Founded in 1703, the city of Dover 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 physical facilities of Delaware State College support the various college programs. Major administrative and academic facilities are listed below.

The **Science Center** houses offices, classrooms, and facilities for natural sciences and mathematics.

The **William C. Jason Library-Learning Center** is the academic hub of the College. It contains a good collection of books, periodicals, microfilm, microfiche, and audio and video tapes. The Learning Skills Center is also located in this building.

The **Education and Humanities Center** accommodates the departments of Art, Music, English, Foreign Languages, Philosophy, and Education. This facility also houses the Child Development Laboratory and the office of the Vice President for Student Affairs.

The **William W. W. Baker Center for Agriculture and Natural Resources** houses classrooms, laboratories, workshops, and offices of the Department of Agriculture and Natural Resources.

Grossley Hall is the administration building. Located in this facility are the offices of the President, Vice-President for Academic Affairs, Vice-President for Fiscal Affairs, Director of Admissions and Records and Director of Financial Aid. This facility also houses the Computer Center and the Office of Institutional Research.

Memorial Hall is a health, physical education, and recreational facility. It has an indoor swimming pool, a gymnasium, faculty offices, and classrooms. A dance studio, paddle ball, hand ball, squash courts as well as laboratories for anatomy and physiology of exercise courses are also housed in this building.

Delaware Hall houses the Department of Psychology and the Department of Sociology, Social Work, and Urban Affairs.

Conrad Hall is occupied by the Department of History and Political Science. It also contains dining facilities.

The **Business Administration and Economics Building** houses the Department of Economics and Business Administration, Home Economics, and Nursing.



FUTURE DEVELOPMENTS

Located in one of the fastest growing areas of the country, the enrollment of Delaware State College continues to be stable at 2,200-2,500 students. To accommodate the current trend in enrollment, renovations and additions to the physical plant are presently underway, including the completion of a gymnasium annex to Memorial Hall, and the projected modernization of Delaware Hall, the Educational Television (ETV) Building and the old Thomasson Library Building. The Nicholas Loockerman House, an outstanding example of colonial Georgian architectural style and understood to have been an underground railway refuge during the pre-civil war period, is also scheduled for restoration.

The College participated in the Title III Program of the Federal Government provided for in the Higher Education Act of 1965. Under the terms of this program, the College received a \$2.5 million grant from the United States Office of Education to plan and develop programs. These funds enabled the College to expand student services, upgrade faculty, and enrich curricula through introduction of computer assisted instruction and the expansion of computerized administrative services.



ACADEMIC REGULATIONS AND PROCEDURES

**Admissions
Registration
Grading System
Removal of Incompletes
Class Attendance
Withdrawal From Courses and
College
Auditing
Probation, Retention,
Reinstatement
Foreign Language
Academic Honors
Graduation Requirements**

ADMISSIONS

Admission to Delaware State College is granted to all applicants whose academic and personal qualifications give promise of success at the College. All applicants, regardless of race, creed, national origin or health condition, are given equal consideration for admission. The College reserves the right to close admission when no further space remains.

Students who wish to secure admission to the College should apply as soon as possible to ensure that a place is available. It is advisable for high school students to apply for admission to the College while in the eleventh grade.

All persons seeking admission to regular sessions must apply formally through the Office of Admission. 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/her academic status.

Applicants seeking admission to the College should complete and submit their applications, with all supporting documents, by the following deadlines:

First Semester Admission — June 1.

Second Semester Admission — December 1.

Admission and application deadlines for Special Programs, Summer and Evening Schools and other Continuing Education courses and/or programs are announced through appropriate publications.

Admissions: Application Procedures

1. Application forms may be secured from the guidance office of any Delaware High School, or from the College Admissions Office. Instructions are included.
2. Applicants should complete the personal part of the form, and forward it to the Office of Admissions with the application fee of ten dollars. 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 the evaluation sheet and forward it to the Office of Admissions. The transfer applicant should arrange to forward to Delaware State College official transcripts of all previous college work.
3. After enrollment, each student is required to submit the College Health Form, which includes health history and a recent physical examination, to include a Serology Test. The Health Form must be signed by a bona fide physician. The completed Health Form should be mailed to: Student Health Services, Delaware State College, Dover, Delaware 19901. Students who do not submit properly completed Health Forms by the end of the first two weeks of the semester for which they are admitted will be subject to dismissal.
4. Applicants are advised that failure to give complete and accurate information will be grounds for cancellation of registration and dismissal from the College. (The transfer applicant must list on the application all colleges attended and the dates of attendance.)

Admission: High School Graduates

1. Admission may be granted to applicants who have a certificate or diploma from an accredited four-year school or senior high school. It is recommended that students seeking admission to the College follow the College Preparatory Course in high school.
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 at the College leading to a degree.
3. Applicants must give evidence of having maintained a satisfactory high school record with the completion of at least 15 units of high school work.

4. A satisfactory record normally includes a high school average of "C" in academic work and 15 acceptable course units distributed as follows:

English	4 units
Mathematics	2 units
History and/or Social Studies	2 units
Science	2 units (must include one laboratory science)
Electives	5 units

5. The tests to be used for admission purposes shall be the Scholastic Aptitude Test (S.A.T.) or the American College Test (A.C.T.). The absolute minimum total varies with the strength of other stated criteria.
6. The test scores 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.
7. Students with deficiencies must enroll in the College Learning Skills Center where they will develop communication skills in reading, writing, and speech as well as college-level skills.

Admission: Non-Graduates of High School

The College will consider for admission applicants who have satisfied high school graduation requirements under the General Education Development (GED) test.

Admission: Out-of-State and Foreign Students

1. Out-of-state and foreign students are accepted according to a percentage which 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 and who have made satisfactory scores on the TOEFL Examination. 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 totally responsible for 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.

1. 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.
2. 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 their first enrollment.
3. 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 request must be accompanied by bona fide 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 junior college, four-year colleges, and universities. A transfer student must take the last thirty (30) hours in residence at Delaware State College.
2. Transfer students who seek a degree must satisfy all entrance requirements. A statement of honorable withdrawal from his/her former institution must be

provided for each applicant. All transfer applicants must provide official transcripts covering all high school and college work completed. College courses that have not been completed within the last ten years will not be accepted automatically for transfer credit. Acceptance of such courses for transfer credit will be at the discretion of the department in which the equivalent course is offered.

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 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 these institutions will be considered for admission with the same status at Delaware State College. Students who have been dismissed, suspended, or placed on probation for disciplinary reasons at other institutions are not permitted to matriculate for a degree at Delaware State College.
6. A \$10 non-refundable transcript evaluation fee is charged to all accepted transfer students. Once the student is enrolled, the fee is credited to his/her account.

Admission: Special Provisional and Part-time Students

1. Students Still in High School — In order to qualify for early admission to college courses, high school juniors and seniors from the State of Delaware must be recommended by their high school principals, and approved by their parents and the College. A cumulative grade point average of 2.5 or better is also required. These applicants may enroll for no more than six hours per semester. Students, whose averages are 3.0 or better, are entitled to three hours free tuition per semester. All applicants 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 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 admission to the College in a degree program. A special student is a person who has not been admitted for a degree.
3. Students Seeking a Degree on a Part-time Basis — Students who enroll and take less than twelve credit hours per semester and have met regular admission standards, are considered part-time degree candidates.

Admission: Reinstatement of Former Students

Students wishing to return to the College after voluntary or involuntary absence of one semester or more must make formal application to the Admissions

Office not later than June 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. Freshmen take placement tests during the first week of each semester (Freshman Orientation Week). Registration and Placement are based on the results of these tests. No advanced credit is awarded to students for this work.
3. The College offers advanced credit through the College Level Examination Program (CLEP). Requests for CLEP credit should be made to respective department chairpersons.

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. Interested parties may write or call (302)-736-5164 for more information.

Admission 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. The Evaluation Sheet should be given to the high school counselor immediately upon submitting the application to the College.
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.

REGISTRATION

PRE-REGISTRATION

All students returning to Delaware State College following the current semester of their residence must pre-register during the period prescribed in the College Calendar. Students will pre-register according to their classification as announced by the Records Office. Returning students who do not pre-register will be assessed a \$15.00 penalty.

REGISTRATION

Every student is expected to complete registration before the first day of classes in each semester and on the dates specified in the College Calendar.

A student is officially registered for a course(s) only when he has completed all the procedures applying to registration for the course(s).

Students not officially registered for a course will not receive credit for the course at the end of the semester.

Each student is advised to see his/her department chairperson during the registration period specified in the College Calendar to select courses for the next semester.

A student who fails to register during the official registration period is charged a late registration fee of \$15.00.

CHANGE IN STATUS

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

CREDIT HOURS

Academic work in 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 accepted for a course in which a student is not officially registered. 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 for each course in which a student is enrolled. The 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 grade point averages. Students who earn low grades in certain courses can retake them. If a higher grade is achieved, the higher grade will replace the lower grade of record for that course. The grade point average (GPA) is computed by dividing the total number of quality points received by the total number of hours earned.

Grade changes must be approved by both the Department Chairperson and Vice President and Dean of Academic Affairs within the first three weeks of the semester of instruction immediately following the semester the grade was issued. Approved grade changes will be forwarded to the Records Office from the Office of Academic Affairs.

The grading system at Delaware State College is shown below:

GRADE	QUALITY POINTS	EXPLANATION
A	4.00	Excellent
B	3.00	Good
C	2.00	Fair
D	1.00	Poor
F	0.00	Failure
Z	0.00	Unofficial Withdrawal
I	(Not Computed in GPA)	Incomplete
W	(Not Computed in GPA)	Withdrew
AU	(Not Computed in GPA)	Audit—Not Taken For Credit

USED FOR COMMUNICATION SKILLS COURSES

S	(Not Computed in GPA)	Satisfactory
U	(Not Computed in GPA)	Unsatisfactory
P	(Not Computed in GPA)	Passing
F	(Not Computed in GPA)	Unsatisfactory

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" is changed to "F".

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

ACADEMIC LOAD

A normal course load at Delaware State College is 15-18 credit hours per semester except where the curriculum of a department specifically calls for more than 18 hours. Permission to exceed a normal course load may be obtained from the student's academic advisor on condition that the student has a 2.50 cumulative average and a 3.00 grade point average the previous semester (based on a minimum of 12 credit hours).

FULL-TIME STATUS

The minimum course load for full-time status is 12 credit hours per semester.

A full-time student is normally expected to complete 30 credit hours of course work each academic year (Fall and Spring Semesters and Summer Sessions); and must complete a minimum of 24 hours of course work each academic year. In addition, full-time students must meet the academic regulations stated elsewhere in the College catalog.

CLASS ATTENDANCE

No student may attend class unless 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 from attending class. Absence from class for any reason does not excuse the student from responsibility for any assigned work. No student's grade may be reduced solely because of absences since the grade assessed in any course must reflect the student's academic performance.

WITHDRAWAL FROM COURSES OR FROM THE COLLEGE

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

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

A student who withdraws officially from a course or from the College during the period prescribed in the academic calendar for "Withdrawal from Classes" will be reported to the Office of Records as "Withdrew".

A student who withdraws officially from the College after the prescribed period in the academic calendar for withdrawal from classes will receive whatever grade the instructor records.

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.

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 Vice President and Dean of Academic Affairs. 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 the student each semester prior to registration and officially approve the program of study before registration can be completed.

STATEMENT OF SATISFACTORY PROGRESS

Any student who does not complete 24 hours and has less than a 1.70 cumulative average by the end of a 12-month period does not meet Satisfactory Progress and will not be eligible for financial aid.

PROBATION, RETENTION, AND REINSTATEMENT

A student whose grade point average is below 1.70 at the end of one semester shall be automatically placed on academic probation for the succeeding semester. A student on probation is ineligible to hold elective positions or to represent the school in any capacity.

In order to be removed from academic probation, a student must earn a grade point average of 2.00 or better his/her next semester in residence.

Students with academic probationary status at the end of the *Spring Semester* may attend the Summer Session of the *same calendar year*. The grades earned in Summer School will be computed with the Spring Semester grades to determine the status of the student.

If a student on probation the succeeding semester fails to earn a 2.00 average at the end of that semester he/she shall be suspended for the following semester. At the expiration of this period, he/she may apply for readmission on probation. The student must earn a grade point average of 2.00 ("C") during the semester of his/her reinstatement.

If a student fails to earn the necessary 2.00 average, he/she will be dismissed from the Day session. He/she may apply to the Admissions Office for reinstatement if he/she successfully completes twelve (12) hours with an average of 2.00 ("C") in Continuing Education or Summer School at the College or attends another accredited institution and completes twenty-four (24) hours with a grade average of "C" or better.

A student on probation may take a normal load. However, it is advisable that the student take no more than twelve (12) hours.

Academic suspended students who have "Incompletes" may register at their own risk in an effort to earn the average of 2.00 within the six-week period immediately following registration. Failure to do so will result in automatic dismissal.

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.

GENERAL PROBATION

Any student who has been dismissed, suspended, or placed on disciplinary probation may not represent the College in any public activity nor hold any elective office or appointment of responsibility during the semester affected.

FINAL EXAMINATIONS

Examinations are required in each course. Final examinations will be administered during the prescribed periods as shown in the academic calendar of that academic year.

FOREIGN LANGUAGE

Unless twelve (12) semester hours of foreign language are required within a specific curriculum, a student may elect to take six (6) hours of a foreign language toward the twelve (12) hours of Humanities electives needed to satisfy the General Education Requirement.

Students presenting three (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 on 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 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 100 level courses to complete their requirement.

Veterans are not required to enroll in P. E. 100, but must elect two (2) hours from the 100 level to complete the Physical Education requirement.

ELECTIVES

A student may select the minimum designated number of electives in accordance with his/her interests and major departmental requirements. He/she should do this in consultation with his/her faculty advisor.

TRANSCRIPT REQUEST

Transcripts of a student's academic record are issued by the Office of Records and only at the written request or when authorized by the student.

Official transcripts from other institutions, presented for admission, become the property of Delaware State College and are not reissued or copied for release. Such requests must be made to the respective institution where academic credit was earned.

Each student is entitled to one transcript without cost. A fee of one dollar (\$1.00) per copy is required for each subsequent request. All financial obligations, including federal loan repayments, must be satisfactorily settled before release of transcripts.

Request for a transcript normally will be processed within 48 hours, except during peak work periods such as registration, pre-registration, final examinations and commencement.

Personal transcripts do not bear the College Seal.

ACADEMIC HONORS

Dean's List — The Dean's List includes students who have earned a scholastic average of 3.25 or above and have completed fourteen (14) or more degree credit hours at the end of the semester.

Graduation With Honors — Honor is awarded at graduation to the candidate who has attended the College for at least three years (90 semester hours) 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

Honors for Transfer Students — Transfer students, who may be 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 at first passing level that are not transferable). The lower of these two indices is considered the official scholastic index for purposes of academic honors and election to honor societies.

HONORABLE MENTION is awarded to transfer students if they complete the last two years of academic work toward graduation (60 semester hours) at Delaware State College if the lower of the two indices is a scholastic average of 3.50.

GRADUATION 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/her major study area in which he/she is enrolled to be eligible for graduation. Of the minimum total of 121 semester hours, forty-two (42) hours of General Education courses must be completed by the candidate. General Education Requirements are distributed as follows: eleven (11) hours of basic intellectual skills, twelve (12) hours of humanities, six (6) hours of mathematics, six (6) hours of natural science and seven (7) hours of social science.

Courses in Communication Skills cannot be used for degree credit.

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 the College.

Residence Requirement — A candidate for the baccalaureate degree must complete the last thirty (30) semester hours of credit at this college. However, a student may enroll in six to eight (6-8) hours of courses at another institution upon approval of the Department Chairperson and the Vice President and Dean of Academic Affairs.

Students who transfer from other institutions must earn a minimum of thirty (30) semester hours at Delaware State College.

Double Degrees — A student can be awarded two (2) degrees at the same time only if the degrees are different (e.g., Bachelor of Science and a Bachelor of Arts Degree). If a student is pursuing two (2) fields of study for which the same degree is awarded, then only one (1) degree will be granted.

To be eligible for a second degree, (1) the work must be taken in two (2) fields of study; (2) the student must satisfy the curriculum requirements of the department in which the second degree is sought.

A student returning to Delaware State College for a second degree or major must officially declare a major in the second area. This student need only satisfy the additional requirements for the second major in order for the second baccalaureate degree to be conferred.

A student must return to Delaware State College to complete the requirements for a second degree.

Diplomas — Diplomas will be ordered by degree and major. One diploma will be ordered for each degree earned.

Diplomas will not be issued to anyone who has not satisfied all financial obligations to the institution, including loan programs administered by the College.

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 and *no later* than the third week in January of that graduation year.

If the application is not filed, there is no assurance that the diploma will be ordered in time for graduation.

NOTE: Students who have met degree requirements are eligible for graduation at the close of any semester. Students may request a letter of completion from the Office of Records.

EXPENSES

General College Fees
Special and Part-time Students
Schedule of Payments Required
Laboratory Fees
Payment of Fees
Advance Deposit
Contractual Obligation of Boarding Students
Room Deposit Fee
Withdrawal Refunds
Textbooks

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 \$1150 to \$1400 per school year as additional expense to cover such items. This estimated range is, of course, entirely dependent upon circumstances and the student's taste.

	FIRST SEMESTER	SECOND SEMESTER	TOTAL FOR YEAR
1. Comprehensive College Fee	\$ 304.00	\$ 304.00	\$ 608.00
Student Activities Fee*	21.00	21.00	42.00
TOTAL (In-State Full-Time Students)	\$ 325.00	\$ 325.00	\$ 650.00
2. Tuition (Out-of-State Students)	475.00	475.00	950.00
3. Medical Insurance Fee**	58.00	—0—	58.00
4. Room	425.00	425.00	850.00
5. Board	500.00	500.00	1000.00
6. SPECIAL FEES:			
Application Fee			10.00
Student Teaching Fee***			75.00
Graduation Fee			25.00
Failure to Pre-register Fee			15.00
Late Registration Fee			15.00
Processing Fee for Status Changes			10.00
Transcript Fee			1.00
Transcript Evaluation Fee			10.00
Room Key Deposit (Refundable)			7.00
Residence Hall Activities			3.00
7. SPECIAL STUDENT FEES:			
Registration as a part-time or special student			10.00
In-State (Per Credit Hour)			30.00
Out-of-State (Per Credit Hour)			60.00

*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 Vice President for Student Affairs.

**Hospital and 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 1982-83. Students residing in dormitories are required to participate in this program unless they are covered by Medicaid, Family Blue Cross under parent's contract, Federal Employees, or Champus. To obtain this exemption, a resident student must provide satisfactory evidence of other coverage.

***Student teaching fee covers the cost of special supervision. Students participating in this program 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 \$105.00 per 12-week period.

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 \$30.00 per credit hour for students who are residents of Delaware and \$60.00 per credit hour for students who are not residents of Delaware. Fees for special courses that are 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. Application for loans from banks under the Delaware Guaranteed Loan Program should be made **AT LEAST FOUR (4) MONTHS BEFORE REGISTRATION.**

FIRST SEMESTER 1982-83			
	ADVANCE DEPOSIT	DUE ON OR BEFORE REGISTRATION	TOTAL FOR SEMESTER
In-State Students			
Commuter	\$ 25.00	\$ 300.00	\$ 325.00
Resident Only	50.00*	768.00	818.00
Boarding	50.00*	1268.00	1318.00
Out-of-State Students			
Commuter	50.00	750.00	800.00
Resident Only	50.00*	1243.00	1293.00
Boarding	50.00*	1743.00	1793.00

SECOND SEMESTER 1983-84			
	ADVANCE DEPOSIT	DUE ON OR BEFORE REGISTRATION	TOTAL FOR SEMESTER
In-State Students			
Commuter	\$ 25.00	\$ 300.00	\$ 325.00
Resident Only	50.00*	700.00	750.00
Boarding	50.00*	1200.00	1250.00
Out-of-State Students			
Commuter	50.00	750.00	800.00
Resident Only	50.00*	1175.00	1225.00
Boarding	50.00*	1675.00	1725.00

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

*Includes a dormitory key deposit of \$7.00 and Residence Hall Activities of \$3.00. These are annual fees and are not required in the second semester for students who have paid it the first semester. \$40.00 will be applied toward your fees.

Art 206	10.00
Art 301/411	25.00
Art 302/412	10.00
Art 306	10.00
Art 401	10.00
Art 406	10.00
Biology	12.50
Business Machines	8.00
Chemistry	15.00
Home Economics 102	8.00
Home Economics 104	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 318	8.00
Home Economics 320	8.00
Home Economics 405	8.00
Home Economics 406	TBA**
Home Economics 407	8.00
Home Economics 409	8.00
Nursing 205	8.00
Nursing 301	20.50*
Nursing 302	8.00
Nursing 401	20.50*
Nursing 402	8.00
Nursing 403	8.00
Physical Education 118	20.00
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. Overnight accommodations for nursing students are available at the Wilmington Campus. Rates are \$70.00 per semester for two nights per week for students who do not reside on campus.

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 and not made good within five (5) days from date of notice. A service fee of \$2.00 will be charged for each dishonored check returned. Checks should be made payable to Delaware State College.

*Includes insurance premium of \$12.50 which will vary according to the rate charged the College by the insurance company.

**A special fee is charged for this residence course when taken by non-residence students and residence students who do not have full boarding (room and board) accommodations. Fees are based on the cost of room and board at the college and may vary depending on college rates. For specific information, students should confer with the Department Chairperson when they enroll in the course.

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 the student is 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. In-State Delaware students must pay an additional \$25 deposit to reserve a room in the dormitory. See Room Deposit Fee section.

CONTRACTUAL OBLIGATION OF BOARDING STUDENTS

In order to provide 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 Vice President for Student Affairs 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/she is in a boarding status.

A boarding student who wishes to change his/her 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 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 room charge, students who live in a residence hall must pay a key deposit of \$7.00, Residence Hall Fee of \$1.00 and \$1.50 dues for Men's Council and/or Women's Senate activities. 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 a Residence Hall office will result in forfeiture of the deposit. The key deposit and special residence hall fees totaling \$10.00 should be paid to Delaware State College with a separate check or money order properly identified and sent at the same time as the advance deposit for registration.

All continuing students should indicate their intention to reside on campus for the next year by filing an application and paying the Advance Deposit Fee at the time of preregistration. Rooms will not be reserved for any student who fails to file the required application and pay the Advance Deposit Fee when due.

WITHDRAWAL REFUNDS

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

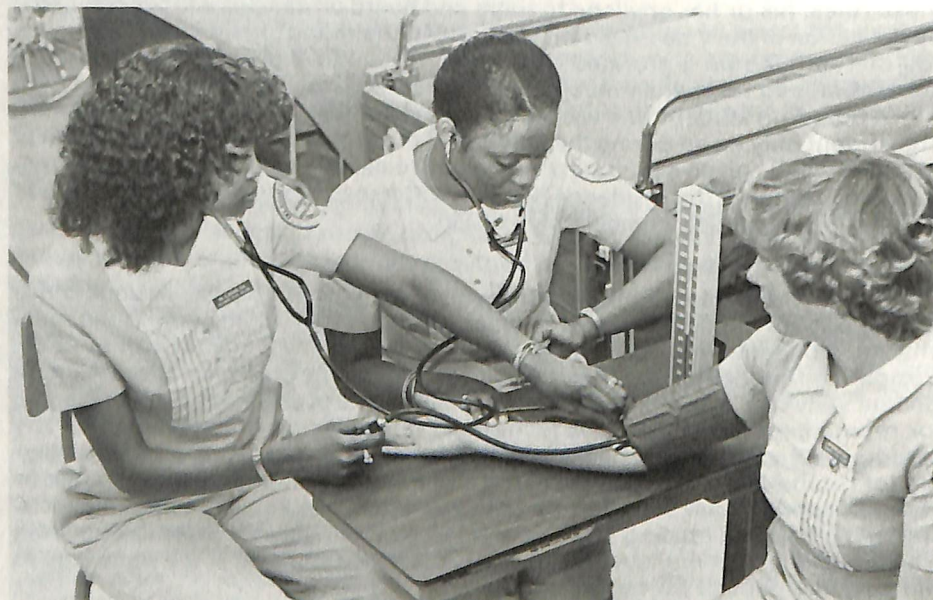
WITHIN TEN CALENDAR DAYS FROM THE FIRST DAY OF CLASSES The Comprehensive College Fee less the advance Deposit plus the Medical Insurance Fee, the Student Activities Fee and Tuition (if any) will be refunded. Room and/or Board charges are refunded on a pro-rated daily basis.

FROM ELEVEN TO THIRTY CALENDAR DAYS FROM THE FIRST DAY OF CLASSES Two-thirds of the Comprehensive College fee after deducting a registration charge of \$25.00, 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.

STUDENTS WHO WITHDRAW WILL RECEIVE NO REFUND FOR ANY FINANCIAL AID RECEIVED FOR THE SEMESTER AND ANY FINANCIAL AID AWARDED WILL BE RETURNED TO THE GRANTOR OR GRANTORS PROPORTIONATELY IN ACCORDANCE WITH THIS REFUND POLICY.

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.



FINANCIAL AID

**Federal Grants and Loans
Private Scholarships
Procedures for Applying for Financial Aid**

FINANCIAL AID

Delaware State College participates in the American College Testing Program (ACT). Participants in ACT subscribe to the principle that the amount of financial aid granted a student should be based upon financial need. The ACT 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

Pell (Basic) Grant Program: The largest federal student aid program is the Pell Grant Program. Its purpose is to make sure that all eligible students have at least some of the money they need to continue their education after high school. See Financial Aid brochure for award criteria. The amount of each Pell Grant depends on financial need, the cost of his or her education, and the actual amount of time he or she will be enrolled during the school year. In 1981-1982, the amount of a Pell Grant ranged between \$120 and \$1,670. A Pell Grant is often combined with some other kind of aid.

Supplemental Educational Opportunity Grant Program (SEOG): Supplemental Education Opportunity Grants are provided to a limited number of undergraduate students with financial need. This grant may be up to \$2,000 a year.

National Direct Student Loan Program (NDSL): Under this program, students can borrow money from the federal government through the college. Each participating institution receives a certain amount of loan funds. The financial aid administrator distributes these funds according to need.

Loan limitations are \$3,000 for the first two years and \$6,000 for completion of the baccalaureate degree. Repayment and interest begin six months after a student graduates, leaves school, or drops below half-time enrollment. Interest on these loans is 5% per year, and repayment may be extended over a period of ten years.

Guaranteed Student Loan Program (GSL): A student may borrow from a bank, savings and loan association, credit union, or other lender, and a state or other private nonprofit agency will stand behind the loan. A student whose family adjusted gross income is \$30,000 or less may, without undergoing a financial needs test, borrow up to \$2,500 a year, to a total of \$12,500 for undergraduate study. A student whose family adjusted gross income is greater than \$30,000 must undergo a financial need test. The amount that a student may borrow depends on the student's financial need, but may not exceed \$2,500 a year. An origination fee or 5% of the principal amount of the loan must be paid by the student and normally will be deducted from the loan before it is disbursed. The federal government pays the interest on the loan while the student is in school. Repayment and 9% interest begin six months after the student graduates, leaves school, or drops below half-time enrollment.

College Work-Study Program (CWS): A work-study job can be a source of valuable work experience as well as financial aid. Under the work-study program,

the employer pays a small part of the student's wages, and the government pays the rest. Most work-study positions are on campus. Students can work part-time while they are in school, and they can work full time during the summer and other vacation periods. The basic pay rate is usually the current minimum wage; this may vary, depending on the skill and experience needed for the job.

STATE, COLLEGE SCHOLARSHIPS AND LOANS

Athletic Grants (up to full expenses): Recipient must participate in varsity football, basketball, wrestling, or track and be selected by a coach. Apply to the coach of a particular sport.

Departmental Scholars (6/\$500): Recipient must have junior or senior standing with at least one full year of study at Delaware State College; a 3.25 minimum cumulative grade point average; possess scholarly qualities of excellence in a major field; intend to continue study beyond college; perform an approved special supervised project in a major field. Apply through major department chairperson in spring of year prior to award.

Delaware Postsecondary Scholarship Fund: These funds are available to resident of the State of Delaware who are attending colleges and universities within the state. Students must be enrolled in an eligible institution and demonstrate financial need. The student may receive a maximum of \$1,000 per academic year. Apply by indicating the Code 0583 on the ACT form. For more information contact: Delaware Postsecondary Education Commission, Carvel State Office Building, 820 French Street, Wilmington, Delaware 19801, (302) 571-3240.

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 (Amount varies for four years): The student must participate in the College Band, Choir or other approved musical organization under the supervision of the Music Education Department. Apply through Department of Music Education during the Spring of the year prior to award.

President's Award Scholarship (20/\$1,250): This scholarship is awarded to students who possess a cumulative average of 3.50 and above and who have passed thirty (30) hours per year.

State Scholarships (Amount varies for four years): The student 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% or 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/her 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 college English and has a "B" or better average in at least three (3) business courses.
4. A candidate must submit scores made on national examinations such as SAT CEEB or ACT.

State Student Incentive Grants (SSIG): State Student Incentive Grants 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 demonstrate financial need. The student may receive a maximum of \$1,500 per academic year. Apply by indicating the code 0583 on the ACT form. For more information contact Delaware Postsecondary Education Commission, 800 Delaware Avenue, Suite 703, Wilmington, DE 19801, (302) 571-3240.

PRIVATE SCHOLARSHIPS

Allied Chemical Foundation Scholarship in Chemistry (1/\$1,000): 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.

Delaware State College Staff Scholarships (5/\$175)

Diamond Shamrock Corporation Scholarship for Economics and Business Administration (1/\$500)

E. I. Dupont deNemours and Company Scholarships in Chemistry (2/\$175): Apply to the Department of Chemistry.

Epsilon Iota Omega Chapter, Alpha Kappa 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 is granted 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.

Hercules Incorporated Scholarships (Amount Varies): Awarded to upperclass students who are majoring in accounting with a scholastic average of 3.0 or above. Apply to the Department of Economics and Business Administration.

Karl B. Hunter Memorial Scholarship (1/\$100): Awarded to a sophomore student who is majoring in Home Economics and meets the criteria established by the Department of Home Economics. Selected by the scholarship committee of the department.

International Playtex Awards (3/\$500): Recipients must be entering freshmen ranked in the upper half of their senior high school class, residents of Kent County, Delaware, and 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 the senior year with a satisfactory record of conduct and scholarship. The 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 (\$4,000 for 4 years): Open to entering freshmen from Delaware who have not attended college on a full time basis. Apply by March 1 to SICO Foundation, Mount Joy, PA, on forms secured from high school counselor. Notify, Director of Financial Aid, Delaware State College, Dover, Delaware 19901.

The LaVerne B. Thomasson Scholarship, Alpha Kappa Alpha Sorority, Epsilon Iota Omega Chapter (2/\$250): Recipient determined by Sorority scholarship committee.

Michael A. R. Walsh Scholarship in Chemistry (1/\$600): Applications are available in the Department of Chemistry.

PROCEDURES FOR APPLYING FOR FINANCIAL AID

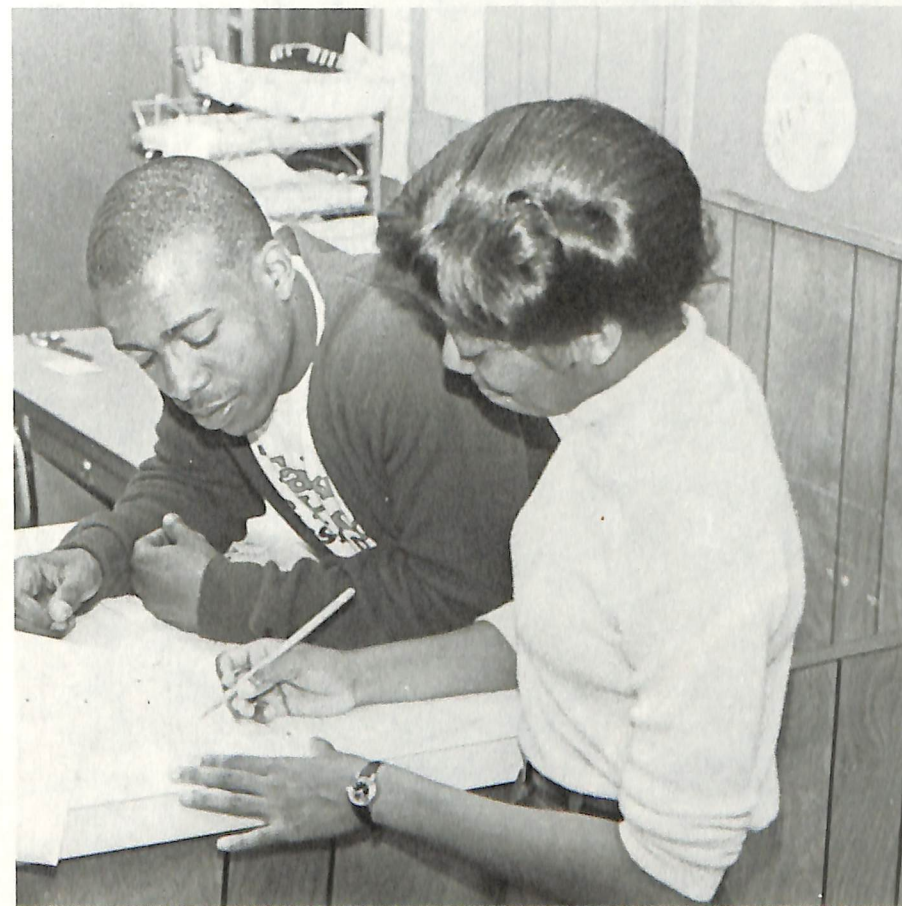
Candidates for admission to the college who wish to apply for financial aid should do so by filing American College Testing Program Forms (ACT) not later than February 28. Application forms may be obtained from the Office of Financial Aid, Delaware State College, Dover, Delaware.

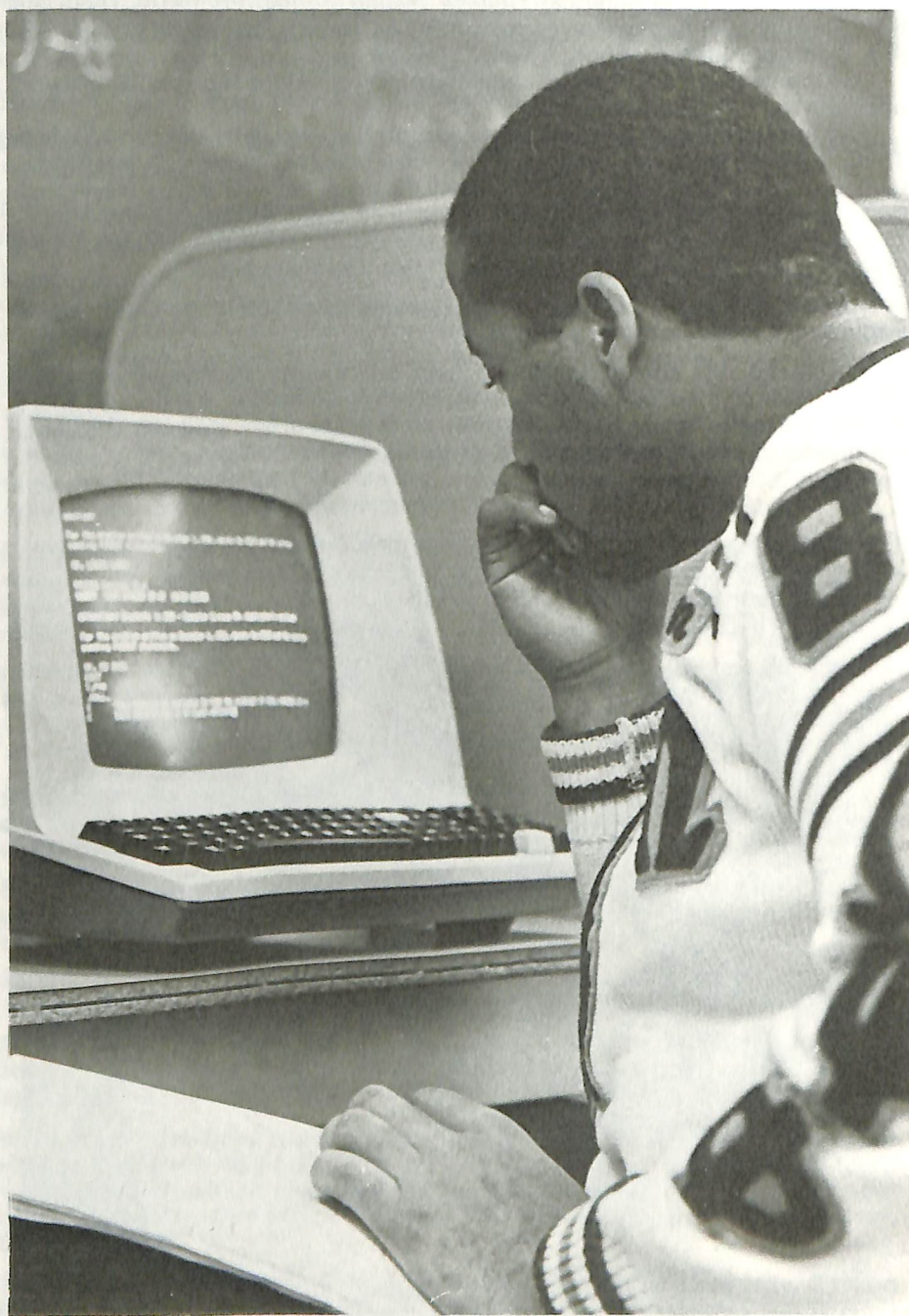
Students currently enrolled should apply on or before February 28 for assistance during the succeeding year.

All entering students are required to submit a copy of the American College Testing (ACT) form to Iowa City, Iowa. They should designate Delaware State College as a recipient of the (ACT) Family Financial Statement. This form should be submitted so that it arrives in the Office of Financial Aid not later than June 1. This material may be obtained from any secondary school or from the Office of Financial Aid, Delaware State College, Dover, Delaware 19901.

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.





ACADEMIC PROGRAMS

Degrees Offered
General Education Requirements

DEGREES OFFERED

Delaware State College is a fully-accredited institution of higher education that grants the Master of Arts (M.A.) degree,** Bachelor of Arts (B.A.) degree, Bachelor of Science (B.S.) degree, and the Bachelor of Technology (B.Tech.) degree. Degrees are conferred only at the end of the Spring Semester in accordance with the date given in the academic calendar. The requirements for the degrees insure that each student develops skills in the broad fields of human knowledge and in a major field of study. 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 undergraduate major fields and a variety of courses in other disciplines offered at the College. The College provides undergraduate major courses of study in the departments listed below:

Agriculture and Natural Sciences

- Agri-Business
- Agriculture Education*
- General Agriculture
- General Resource Management
- Plant Sciences
- Park Management and Recreation
- Wildlife Management
- Fisheries Management
- Soil and Water Management
- Vegetation Management
- Environmental Health

Art and Art Education

- Art Education*
- General Art

Biology

- Biology
- Biology*
- Biology with emphasis in Botany

Chemistry

- Chemistry
- Chemistry*

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*

Education

- Early Childhood/Education*
- Early Childhood/Exceptional Children*
- Elementary Education*
- Occupational-Vocational Teacher Education*
- Science Education*

*Teaching Major

**For further information concerning the Master of Arts degree in Education with a concentration in Curriculum and Instruction, please contact The Graduate Program Office, Department of Education, Delaware State College, Dover, Delaware 19901, (302) 736-5232/4941.

Cooperative Engineering Program

- 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

- English
- English*

Foreign Languages

- French
- French*
- Spanish
- Spanish*

Health, Physical Education and Recreation

- Community Health
- Health and Physical Education*
- Health Education
- Recreation

History and Political Science

- History
- Social Studies*

Home Economics

- Home Economics Education
- Occupational Vocational Care and Guidance of Children
- Foods and Nutrition
- General Home Economics
- Clothing, Textiles, and Fashion Merchandising

Mathematics

- Mathematics
- Mathematics Education*
- Mathematics/Computer Science

Music Education

- Music Education*

Nursing

- Nursing

Physics and Astronomy

- Physics
- Physics*
- Civil Engineering**
- Electrical Engineering**
- Mechanical Engineering**

Psychology

- Psychology

Sociology, Urban Affairs and Social Work

- Sociology
- Urban Affairs
- Social Work

*Teaching Major

**Engineering Program

Technology (Bachelor of)

Agri-Business Technology
 Natural Resources Technology
 Business and Secretarial Technologies
 Data Processing
 Food Service Management Technology
 Engineering Technologies
 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 Admissions Office.

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



GENERAL EDUCATION REQUIREMENTS

All students pursuing a course of study leading to the Bachelor's degree are required to earn a minimum of forty-two (42) semester hours of General Education courses 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	Required of all: Eleven hours	11
Eng. 101	English Composition I	3 ✓
Eng. 102	English Composition II	3 ✓
(All students are required to pass English Composition I and II with a grade of "C" or better or retake the course.)		
Eng. 200	Speech	3
P. Ed. 100	Physical Education Orientation	1
P. Ed.	A Physical Education Course on the 100 level	1
HUMANITIES	Required of all: Twelve hours	12
Eng. 201-202	World Literature or	
Eng. 205-206	Afro-American Literature I and II and	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
Art 314	Art History IV	3
Art 315	Art History V	3
Eng.	All courses in English Literature	
	above 201-202, 205-206	
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 ✓ 3
Span. 101-102	Elementary Spanish	6
Span. 201-202	Intermediate Spanish	6

MATHEMATICS	Required of all: Six hours	6
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A minimum of six (6) hours are to be selected from course offerings in Mathematics excluding Mathematics 105-106. Students who are majoring in Elementary Education or Early Childhood 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**Required of all: A minimum of six hours to be
selected from the following:

6

	An Agriculture course with lecture and laboratory	1-4
Astr. 101	Descriptive Astronomy I	3
Astr. 102	Descriptive Astronomy II	3
Biol. 100	Introduction to Biology	3
	**A biology course above the 100 level with laboratory	3-4
Biol. 101-102	General Biology ✓	8
Chem. 101-102	General & Elementary Analytical Chemistry ✓	8
	A natural resource course with lecture and laboratory	1-4
Phys. Sci. 201	Physical Science Survey	4
Phys. 101-102	Introduction to Physics	8
Phys. 121	Concepts of Physics I	3
Phys. 122	Concepts of Physics II	3
Phys. 123	Concepts of Modern Physics	3
Phys. 131	Energy	3
Phys. 141	The Science of Hi-Fi	3
Phys. 201-202	General Physics	8

**SOCIAL
SCIENCES**

Required of all: Seven hours

7 ✓

Educ. 101	Freshman Orientation, and six hours to be selected from the following, three hours of which must be in History: ✓	
	Principles of Economics	3
Econ. 201	World Civilization to Eighteenth Century	3 ✓
Hist. 101	World Civilization Since Eighteenth Century	3
Hist. 102	Afro-American Experience	3 ✓
Hist. 107	Recent Black Experience	3
Hist. 108	American Civilization to 1865	3 ✓
Hist. 201	American Civilization Since 1865	3
Hist. 202	Introduction to Government	3
P. Sci. 103	Junior Colloquium	2
***Hons. 531	Junior Colloquium	2
***Hons. 532	Senior Colloquium	2
***Hons. 541	Senior Colloquium	2
***Hons. 542	Introduction to General Psychology	3 ✓
Psy. 201	Introduction to Sociology	3
Soc. 201	Anthropology	3
Soc. 205	Cultural Anthropology	3
Soc. 206		

Total: 42

**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.

**ACADEMIC
DEPARTMENTS
AND PROGRAMS OFFERED**

ACADEMIC DEPARTMENTS AND COURSE DESCRIPTIONS

The academic program of the College is administered by eighteen departments. 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 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.

DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES

Professors: Dill, Bodola, Jones

Associate Professor: Washington (Chairman)

Assistant Professors: Bell, Howell

Instructor: 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 foreign language to meet graduate school language requirements.

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 Agriculture 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 a major 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 in 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 the General Education requirements, for a major in General Agriculture, these courses are required: Agriculture 206, 208, 219, 317, 301, 313, 304, or 309, 311 or 416; Natural Resources and Agriculture 205; 321 and 350. To meet the thirty-hour minimum requirement of this major and fill 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 a major 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 a major in Plant Science these courses are required: Agriculture 206, 208, 210, 219, 308, 310, 317, 319, 419; Agriculture and Natural Resources 101, 102; Natural Resources 205; Agriculture and Natural Resources 321 and 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, 205, 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.

209. MEAT AND MEAT PROCESSING. A study of slaughtering, grading, cutting, processing, identification, buying and cooking of cuts of meat.

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 references 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. Insects damaging plants will be studied. 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.

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 the plant growth. Crop distribution, culture, and breeding will be considered. Cropping systems will be developed and analyzed. Two lectures and one laboratory 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 of 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 the general education course requirements, for a major in General Resource Management, these courses are required: Natural Resources 205, 321, 450, 451; Agriculture 208. 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 course requirements, for a major in Fisheries Management, these courses are required: Natural Resources 205, 314, 321, 404, 405, 450, 451; Agriculture 208. To meet the 30-hour minimum 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 a major in Wildlife Management, these courses are required: Natural Resources 205, 311, 321, 403, 450, 451; Agriculture 208. 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 a major 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 a major in Vegetation Management, these courses are required: Natural Resources 205, 321, 402, 450, 451; Biology 202, 306; Agriculture 208. To meet the 30-hour minimum requirement of this major and fulfill the elective hours, these courses are suggested: Agriculture 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 a major in Park Management and Recreation, these courses are required: Natural Resources 205, 301, 400, 450, 451; Agriculture 208; 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 a major in Environmental Health, these courses are required: Natural Resources 202, 205, 313, 321, 451; Biology 305, 402. To meet the 30-hour min-

imum 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 weekend 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. MAMMALOLOGY. 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. Prerequisites: 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, 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. Lectures, 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.

DEPARTMENT OF ART AND ART EDUCATION

Professor: Berhalter (Chairwoman)

Assistant Professors: Bassols, Parks

Instructor: Satchell

CURRICULUM OPTIONS IN ART AND ART EDUCATION

ART EDUCATION MAJOR (050): 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; three hours of free electives; History 104, Art Education 202, 203, 204, 206, 301, 302, 303, 304, 311, 312, 313, 341, 342, 401, 402, 403, 408, and 410, four hours of art electives are also required.

GENERAL ART MAJOR (051): All students who select a major in General Arts must complete the general education program as required of all students (see General Education Requirements). In addition, the following courses are required: English 313; twelve hours of free electives; two to three hours of selected clothing/textile electives; three hours of selected business electives; and the following art courses: 203, 204, 206, 301, 302, 303, 304, 311, 312, 313, 315, 401, 402, 403, 408, and 450. Seven to eight hours of art electives are also required.

ART EDUCATION MINOR: The following five areas must be completed for a total of 21 hours. A minimum of: (1) Six hours to be selected from Art 101, 311, 312, 313, 314, and 315; (2) Three hours to be selected from Art 102, 202, 341, and 342; (3) Six hours to be selected from Art 203, 204; (4) Three hours to be selected from Art 303, 304, 305, 401, 402, 403, 406, and 408; (5) Three hours to be selected from Art 206, 301, 302, 306, 411, 412, and 413.

GENERAL ART MINOR: The following four areas must be completed for a total of 21 hours. A minimum of: (1) Six hours to be selected from Art 101, 311, 312, 313, 314, and 315; (2) Six hours to be selected from Art 203 and 204; (3) Six hours to be selected from Art 303, 304, 305, 401, 402, 403, 406, and 408; (4) Three hours to be selected from Art 206, 301, 302, 306, 411, 412, and 413.

COURSE DESCRIPTIONS

ART AND ART EDUCATION

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. 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, three 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. FUNDAMENTALS OF COMPOSITION AND DESIGN I. Experiences in basic drawing techniques and the organization of visual forms through the use of varied media. Credit, three hours.

204. FUNDAMENTALS OF COMPOSITION AND DESIGN II. Additional experiences in basic drawing techniques and the organization of visual art forms through the use of varied art media. 203 and 204 recommended as sequential, but not mandatory. Credit, three hours.

206. THREE-DIMENSIONAL DESIGN. Geared to introduce the student to studio work in three-dimensional design: basic spatial design concepts, creation of expressive order in space with attention to form, space arrangement, movement, proportion, unity, and contrast. Credit, three hours. (Fee)

301. SCULPTURE I. Emphasis is placed on design in three-dimensional sculpture, utilizing clay, plaster, wood and other materials. Credit, three hours. (Fee)

302. CERAMICS I. Various pottery processes are covered including throwing on the wheel, hand-built pottery, and kiln firing techniques. Credit, three hours. (Fee)

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, three 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. 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. (Fee)

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.

315. ART HISTORY V. American Art. The development of painting, sculpture, and architecture in the United States from the 16th century to the present. 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, classroom observations, 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, classroom observations, field trips, and visual media. Credit, three hours.

401. PRINTMAKING. Introduces students to various fine arts methods of the graphic arts. Monoprint, intaglio, relief, planographic and stencil processes will be explored. Emphasis Credit, three hours. (Fee)

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, three 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 203, 204 and 304. Credit, three hours.

406. PHOTOGRAPHY. Designed to give the student an introduction to the camera and black and white darkroom techniques. (Limited enrollment with permission of instructor). Credit, three hours. (Fee)

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 203, 204, 304, 403. Credit, three hours.

409. INDEPENDENT STUDY. This course is designed to allow the qualified student, under the guidance of an art faculty member, to pursue in depth a selected area of interest in art or Art Education. Prerequisite: Departmental approval. Credit, one to four 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. Taken concurrently with Education 412. Credit, one hour.

411. SCULPTURE II. Designed to offer extensive use of building methods and metal techniques. Prerequisite: Sculpture I. Credit, three hours. (Fee)

412. CERAMICS II. Course emphasizes use of the potter's wheel as well as glazing techniques and glaze formulation. Prerequisite: Ceramics I. Credit, three hours. (Fee)

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 to four hours.

ART 450. SENIOR EXPERIENCE. The senior experience is divided into three parts: (1) a senior thesis, (2) individual show and portfolio, and (3) museum workshop seminar. The course is limited to and required of all General Art Majors, and is taken only in the last semester of the senior year. Credit, twelve hours.

DEPARTMENT OF BIOLOGY

Professors, Bodola*, Dill*, Ferguson (Chairman), Helmy, Ofosu
Assistant Professors: Petrosky, Sandridge
Instructor: Driskill

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/she 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 101-102 or 105-106; 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 (nine additional hours are required): Agriculture 308; Biology 301, 305, 308, 313, 402, 451, 452; Natural Resources 202, 402, 450.

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.

*Also listed with the Department of Agriculture and Natural Resources.

**With the consent of his/her 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.

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, developmentecology, and evolution. Also, some attention is given to taxonomy and morphology of organisms. Two lectures and one three-hour laboratory period each week. Must be taken in sequence. Credit, four hours each semester.

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. Prerequisites: Biology 101-102 or consent of the instructor. 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 weekend field trips. Offered in fall semesters. Prerequisites: Biology 101-102, or consent of instructor. Credit, four hours.

207-208. 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. Credit, four hours each semester.

209. GENERAL BOTANY. A survey of the morphology, anatomy, metabolism, reproduction, evolution, and ecology of algae, mosses, ferns, and seed plants. 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, three hours.

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, four 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 two-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 three-hour seminar laboratories. Offered in alternate fall semester. 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. Three one-hour lectures per week. Offered in alternate spring 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 three-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, chicken, 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 ultrastructure 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 two-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. Prerequisite: Junior standing in biology. Credit, three hours per semester.

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.

DEPARTMENT OF CHEMISTRY

Professors: Larson, Wilkinson, Williams (Chairwoman)
Associate Professors: Davis, Wasfi

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 medical, dental, or other health professional schools; and to meet the needs of students wishing to secure a knowledge of the fundamental principles of chemistry.

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.

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

CHEMISTRY MAJOR (NON-TEACHING): For students preparing 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 this 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 advanced 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.

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 or 101; 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.

CHEMISTRY MAJOR (PRE-PROFESSIONAL): For students preparing to enter medical, dental, or other health professional schools and who desire to concentrate 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; and Physics 201-202.

*A chemistry major who makes a score of 560 or higher on the College Board 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.

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

COURSE DESCRIPTIONS

CHEMISTRY (24)

101-102. GENERAL AND ELEMENTARY ANALYTICAL CHEMISTRY. A comprehensive study of the chemical and physical properties of matter including the fundamental principles of qualitative and quantitative analysis. Laboratory practice in analytical separations. Three lectures and one 150-minute laboratory period per week. Corequisites: Mathematics 101-102 or 103-104. Credit, four hours each.

105-106. GENERAL, ORGANIC AND BIOCHEMISTRY. A unified study of the fundamentals of general chemistry and the elements of organic and biochemistry. (Not recommended for majors in the biological sciences or for premedical students.) Three lectures and one 150-minute laboratory period per week. Corequisites: Mathematics 101-102 or 103-104. Credit, four hours each.

201. ELEMENTARY QUANTITATIVE ANALYSIS. Principles of gravimetric, volumetric, potentiometric and spectrophotometric analysis. Two lectures and two 150-minute laboratory periods per week. Prerequisites: General Chemistry (eight hours), Mathematics 101-102 or 103-104. Credit, four hours.

202. FORENSIC CHEMISTRY. Theory and practice in the isolation and identification of drugs using chromatographic and spectroscopic methods. Three lectures and one 150-minute laboratory period per week. Prerequisites: Chemistry 101-102 or 105-106. Credit, four hours.

203. WATER CHEMISTRY — BASIC PRINCIPLES. Essentials of water chemistry with emphasis on the principal methods of testing water and wastewater. Three lectures and one 150-minute laboratory period per week. Prerequisites: Chemistry 101-102, Mathematics 101-102 or 103-104. Credit, four hours.

301-302. ORGANIC CHEMISTRY. Structure, synthesis and reactions of the principal classes of organic compounds with a stress on stereochemistry, reaction mechanisms, and spectroscopic properties. Laboratory practice in the separation, identification, and synthesis of organic compounds. Three lectures and two 150-minute laboratory periods per week. Prerequisites: Chemistry 101-102. Credit, five hours each.

303-304. PHYSICAL CHEMISTRY. A quantitative study of the fundamental physicochemical principles of matter as applied to gases, liquids, solids, and solutions with illustrative laboratory experiments. Three lectures and one 150-minute laboratory period per week. Prerequisites: Chemistry 301-302, Mathematics 221-222, and Physics 201-202. Credit, four hours each.

306. INSTRUMENTAL ANALYSIS. Theoretical principles and chemical applications of instrumental methods of analysis. Two lectures and two 150-minute laboratory periods per week. Prerequisite: Chemistry 303. Corequisite: Chemistry 304. Credit, four hours.

308. INORGANIC CHEMISTRY. A study of the fundamental concepts and chemical systems of theoretical inorganic chemistry. Laboratory practice in synthesis of pure inorganic substances. Three lectures and one 150-minute laboratory period per week. Prerequisite: Chemistry 303. Corequisite: Chemistry 304. Credit, four hours.

401. ORGANIC QUALITATIVE ANALYSIS. Spectroscopic and chemical methods of identification of organic compounds in the pure state and in mixtures. 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 study of the structures of organic compounds, organic reactions and their mechanisms. Synthesis of selected organic compounds using advanced preparative methods. Two lectures and one 150-minute laboratory period per week. Prerequisites: Chemistry 301-302 and 303-304. Credit, three hours.

403. BIOCHEMISTRY. The structural and metabolic relationships of carbohydrates, lipids, amino acids, 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. Advanced treatment of thermodynamics, the elements of quantum and statistical mechanics, chemical kinetics, and selected topics. Three lectures per week. Prerequisites: Chemistry 303-304. Credit, three hours.

405. INDEPENDENT STUDY AND RESEARCH. Independent investigation of a research problem under the supervision of a staff member. Three 150-minute laboratory periods per week. Prerequisites: Chemistry 301-302, 303-304, and 306. Credit, three hours.

406. SELECTED TOPICS IN CHEMISTRY. Topics of current interest in analytical, organic, inorganic, physical, or biochemistry. Prerequisite: Senior standing in chemistry. Credit, three hours. (This course may be repeated for credit with the permission of the department chairman.)

407-408. SEMINAR IN CHEMISTRY. Reports, study and discussion of current literature in the field of chemistry. One hour per week. Credit, one hour each.

409-410. WATER CHEMISTRY — ADVANCED TECHNIQUES. Theory and application of modern chemical instrumentation to water analysis. Three lectures and one 150-minute laboratory period per week. Prerequisite: Chemistry 203. Credit, four hours each.

417. METHODS OF TEACHING HIGH SCHOOL CHEMISTRY. Special methods and materials of instruction in chemistry. One lecture and one 150-minute seminar period per week. Prerequisites: Chemistry 101-102, 301-302, 303-304, and 306 and 308. Credit, three hours.

DEPARTMENT OF ECONOMICS AND BUSINESS ADMINISTRATION

Professors: Bieker, Grandfield, Li

Associate Professors: Price (Chairman)

Assistant Professors: Deeney, Ohemeng, Reaves, Saulsbury, Sheth, *Waller, Williamson

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 Education, 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

*Sabbatical leave 1981-1982 school year.

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, 300, 301, 305-306, 307-308, 310, 401-402, 405, 411, 416, 423, 424, 427, 430; Economics 201-202, 307.

Students majoring in this curriculum desiring to attend graduate school should elect six 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 or Business 300.

Students majoring in this curriculum desiring to attend graduate school should elect six 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 — nine hours (three 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 — nine 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 (Economics 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 economics 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. Prerequisite: 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 RELATIONS. Major labor relations covering hours of work, wages, unemployment, the functioning of labor organizations, labor legislation, and the courts. Prerequisite: 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. INTRODUCTION TO 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.

261. REAL ESTATE I. A real estate sales course providing knowledge needed to transfer real estate in both an ethical and lawful manner. Credit, three hours.

262. REAL ESTATE II. A real estate broker's course providing knowledge needed to operate as a professional broker. Topics covered include real estate documents, valuing and financing real property, rental and property management, legal and governmental aspects of real estate, and investment properties. Credit, three hours.

300. BUSINESS FINANCE. Techniques of financial analysis information related to the financial function of business firms covering the management of assets, the present and future needs for funds, capital budgeting, management of working capital, capital structure, short-term and long-term financing, investments, liquidation or re-organization of the firm. Prerequisites: Business 205 and 206. Credit, three hours.

301. BUSINESS COMMUNICATIONS. 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 are 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 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 207. 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, collater, accounting machine and other peripheral equipment. Credit, three hours.

352. DATA PROCESSING II. A course with emphasis on advanced application 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 economics 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 new 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 application 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, three 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, three 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, three 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, three hours.

DEPARTMENT OF EDUCATION

Associate Professor: Kent (Chairman)

Associate Professor: Crumley, Vornholt

Assistant Professors: Evans, King, Johnson, McIntosh

Instructors: R. Caldwell, Sturge, Patton

Departmental Assistant: G. Gardner

The Department of Education prepares students through professional courses to become teachers in the elementary and secondary schools and 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 programs of study in this department are Early Childhood Education, Early Childhood/Exceptional Children, Elementary Education, Science Education, and Occupational-Vocational Teacher Education. Courses in education are offered also for those who are preparing to teach in the secondary schools.

EARLY CHILDHOOD EDUCATION: The major in this area includes certain courses that are required in general education, biology, geography, history, mathematics, music, art, home economics, English, health education, physical education, sociology, psychology, and education. Each student who pursues a major in Early Childhood Education must obtain a printed copy of the curriculum requirements in Early Childhood Education from the Department of Education, and to satisfy the requirements for a major, all of the courses listed on the printed curriculum must be successfully completed.

EARLY CHILDHOOD/EXCEPTIONAL CHILDREN: By pursuing the planning curriculum in Early Childhood/Exceptional Children Program students receive a B.S. degree in Early Childhood Education and certification in the State of Delaware Early Childhood and Special Education (Exceptional Children) and be eligible to teach children with mild handicapping conditions. To complete this program, all courses listed on the printed curriculum for Early Childhood/Exceptional Children must be successfully completed.

ELEMENTARY EDUCATION: The major in this area includes specific courses that are required in general education, biology, English, geography, history, mathematics, music, art, home economics, health education, physical education, sociology, psychology, and education. Each student who pursues a major in Elementary Education must obtain a printed copy of the curriculum requirements in Elementary Education from the Education Department, and to satisfy the requirements for a major, all the courses listed on the printed curriculum must be successfully completed.

OCCUPATIONAL-VOCATIONAL TEACHER EDUCATION: The Occupational-Vocational Teacher Education Program is a "consortium" involving Delaware State College and Delaware Technical and Community College. Students obtain general and professional education at Delaware State College and technical specialization at 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 requirements, courses must be taken in the major area of teaching—Education, Psychology, and other areas as required on the curriculum guide sheet available in the Department of Education and the Office of Occupational Teacher Education. Students must successfully complete these courses for their degrees. The following specialization courses are offered in this area: construction, electricity/electronics, energy conversion and power mechanics, graphic communications, materials and manufacturing processes.

SCIENCE EDUCATION: The science education major in the Education Department is primarily designed to prepare teachers for middle school and junior high school science programs. The curriculum for science education includes certain required courses in general education, mathematics, English, geography, history, physical education, education, and science. Students who pursue a major in Science Education must obtain a printed copy of the curriculum requirements in

Science Education, and to satisfy the requirements for a major all of the courses listed on the printed curriculum must be successfully completed.

CHILD DEVELOPMENT LABORATORY

Director: Gloria Gardner

Assistant Director: Lola Rucker

The Department of Education operates a preschool and kindergarten program for three, four, and five year old children. The laboratory school is fully staffed by personnel qualified to give children a wholesome learning experience in a cognitive-oriented atmosphere. The school is used in conjunction with the major in Early Childhood Education, Early Childhood/Special Education, Home Economics, and other related areas. The well-equipped facility has a cluster of four classrooms and a private observation room for use by students of the college and parents of the children. Two nutritious snacks and a hot lunch are provided daily by a dietitian-cook. The number of children admitted to the Laboratory School is limited, and there is a yearly fee for those who enroll in the school.

TEACHER EDUCATION POLICIES AND REGULATIONS

TEACHER EDUCATION COUNCIL: The Teacher Education Council recommends policies governing the Teacher Education program; therefore admission, retention, and exit procedures are reviewed by the Council. The Council is composed of representatives from each department at the College with a teaching curriculum; the Department of Education Chairperson, the Director of Student Teaching, and other appointed representatives.

Departments with teaching curricula:

- Agriculture
- Art and Art Education
- Biology
- Chemistry
- Economics and Business Administration
- Business Education
- Distributive Education
- Education
 - Elementary
 - Early Childhood
 - Science Education
 - Special Education
 - Occupational Teacher Education
- English
- Foreign Language
- Health, Physical Education, and Recreation
- History
- Home Economics
- Mathematics
- Music
- Physics

TEACHER EDUCATION REGULATIONS

1. All students who wish to enter a Teacher Education Program will file an application with the Teacher Education Council through the Academic Chairperson. Application forms and other related information are available in the

Teacher Education Office located in Room 267 of the Education and Humanities Building.

- The student's application must be filed during the first six weeks of the junior year.
- Applicants who meet the following Standards will be approved for admission to the Teacher Education Program, and subject to continued satisfactory progress.

Standard 1

The applicant must have earned a grade of "C" or better in English 101 (grammar) and English 202 (composition), and passed an English/Speech proficiency test administered by the English Department in cooperation with the Education Department.

Standard 2

The applicant must have an overall cumulative average of 2.2 or higher on a 4.0 scale. The application must be supported by three references from faculty members, including the Department Chairperson.

Standard 3

The applicant should have a minimum of 60 semester hours of college credit prior to admission.

Standard 4

The applicant should have completed all General Education courses.

- The Council will review each application and notify the applicant in writing of the action taken.

Retention in Teacher Education

- If a student's cumulative average drops below 2.2 while enrolled in a Teacher Education Program, the student will be dropped from the program. The student may apply for readmission.
- The Teacher Education Council may withdraw a student from the Teacher Education Program at any time based upon one of the following reasons:
 - Unsatisfactory academic progress.
 - Disciplinary action by the institution against the applicant because of conduct.
 - Failure to remove deficiencies or maintaining standards of the Teacher Education Program.

Readmission to Teacher Education Program

- If for any reason a student fails to meet the standards described, the student may reapply to the Council of Teacher Education for reconsideration providing he/she does the following:
 - File a formal application for readmission to the program.
 - Write a request as to why he/she should be readmitted.
 - Appear before the Council to state his/her case.
 - A student who has been denied admission to the Teacher Education Program may reapply the following semester and if all standards have been met, admission to the Teacher Education Program will be permitted. A student will not be permitted to file a third application for readmission if rejected by the Council a second time.

Preservice Education Policy

The preservice semester is the culminating experience for students in Teacher Education. It comes in the Fall or Spring of the senior year. A minimum of twelve semester hours may be earned during this semester.

Transfers to Teacher Education Program

- Any student transferring into a Teacher Education Program will be required to meet the standards of the program. In addition, the student should complete all paperwork during his/her first six weeks enrolled at the college.
- A student who transfers to Delaware State College must meet all of the specified standards recommended for other students in order to obtain Council approval.
- Delaware State College, operating through the Teacher Education Council, retains the right to change, modify or add to the above requirements at any time. The student should check with the Chairperson of the Department of Education or his Department Chairperson concerning the most recent policies.

Admission to Student Teaching

- A student planning to student teach must complete an application form available in the Teacher Education Office located in Room 267, Education and Humanities, prior to March 15 of the preceding Spring semester, or October 1 of the preceding Fall semester.
- After review of the student's application, the Council will notify the applicant by letter that the application for admission to student teaching has:
 - been approved, subject to completion of all prerequisites.
 - been disapproved with a statement of the reason(s) for disapproval.
- Applicants who meet the following Standards will be approved for admission to student teaching:

Standard 1

The applicant must have a senior classification.

Standard 2

The applicant must have an overall average of 2.2 and a 2.5 in the teaching area.

Standard 3

The applicant must have a recommendation from the major advisor or Academic Chairperson.

Standard 4

The applicant will not be permitted to take other college courses during the period of student teaching. Exceptions from this standard will be considered by the Director of Student Teaching and the student's Program Director. If a decision between the Director of Student Teaching and the student's program director is not reached, the matter will be referred to the Application Committee of the Teacher Education Council for a decision.

Standard 5

The applicant will not be permitted to student teach when he/she is on probation.

Standard 6

The applicant proposing to teach in the elementary or secondary schools must complete the following courses with a grade of "C" or better before student teaching: all methods courses in each academic discipline where applicable, and, Psychology 302, 316; Education 405 and 411. Education 400 and 412 must be completed with a grade of "C" or better.

- In the event that a student who has been approved for admission to student teaching does not complete all prerequisites prior to student teaching, he/she will not be permitted to student teach.

Waiver of Student Teaching Policy

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 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 in three (3) nine (9) month contracts of service within the last six (6) years.
4. 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. Forms will be supplied for this purpose. These forms, along with supporting letters received from school personnel involved, will become a part of the student's file. All 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 education courses. These six hours are in addition to regular course requirements.
6. An eligible person wishing to take advantage of this policy must sign a waiver form before or by the beginning of his/her senior year in college and be prepared to furnish all the necessary supporting documents that may be required by Delaware State College personnel to properly evaluate the student's request.
7. Whenever 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. A student meeting all the above requirements 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.

SPECIAL REQUIREMENTS FOR TEACHER EDUCATION MAJORS

The School Laws of Delaware require that the individual who intends to teach have a doctor's certificate indicating the individual is free from any disease, physical defect or emotional instability that would interfere with the individual's success as an educator.

Placement

1. An effort will be made to place students in one of their requested school districts; however, all student teaching assignments are under the final direction of the Director of Student Teaching.
2. Each academic program must provide supervision for its students during their student teaching experience.

Transportation

1. Students may reside on campus or at home during their student teaching period. However, in some instances, it may be necessary for the student to maintain living quarters in the community in which they are assigned to student teach.
2. Student teachers are required to provide their own transportation or arrangements for transportation.

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.

210. CONCEPTS AND METHODS OF THE PHYSICAL SCIENCES. This course is designed to include various methods, materials and techniques involved in teaching the physical sciences in grades 7-12. 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 of 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. Observations required. 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 precedes 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 1-8 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. Observations required. 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 latest techniques of teaching will be employed with special emphasis on Piaget's theories of learning numbers. Observations required. Prerequisites: Math 105 and 106 or equivalent and Education 204. Credit, three hours.

307. CONCEPTS AND METHODS OF EARTH SCIENCE. This course is designed to include various methods, materials and techniques involved in teaching Earth Science in grades 7-12. 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 Early Childhood and 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.

311. CURRICULUM FOR THE EXCEPTIONAL CHILD. This course will examine the theoretical framework for the development of curriculum for exceptional children. Emphasis will be on the practical application of methods and materials necessary for program adaptations and modification in the implementation of educational programs designed to meet individual needs. A minimum of eight clock hours will involve actual classroom observation/participation. 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. This course provides a general overview of the legal and educational concerns of educating exceptional children. It includes the historical perspectives, analysis of Federal and State laws and regulations and their implications, as well as models of service delivery and medical, social, emotional, behavioral, and parental considerations in special education. Credit, three hours.

314. SEMINAR IN BASIC RESEARCH. This 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 a major research paper, the topic which will be determined by the student and his/her department chairperson. The course will be team taught, utilizing media, programmed, small group and individual 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 Laboratory. 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.

321. ASSESSMENT OF EXCEPTIONAL CHILDREN. This course will examine a variety of formal and informal instruments and techniques used in assessing the needs of exceptional children. The focus will be on assessing developmental levels, task analysis, and utilization of assessment information to develop Individualized Educational Programs (I.E.P.s). A minimum of eight clock hours will involve actual classroom observation/participation. Credit, three hours.

322. TEACHING READING IN THE SECONDARY SCHOOL. This 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.

323. INTERRELATED EXCEPTIONALITIES. This course provides the opportunity for in-depth study of a variety of specific handicapping conditions. The focus will be on causes,

symptoms, and the educational services needed for various exceptionalities. Students will be required to do research in an area of their interest. Observations of programs will be scheduled. 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, 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 AND 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 twelve weeks under the supervision of a cooperating 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: successful completion of the total curriculum in the student's major field. Credit, twelve hours.

400N. PRE-SERVICE TEACHING IN NURSERY SCHOOL-KINDERGARTEN. This course provides experience in observing and participating in responsible student teaching in the field of early childhood education. The student will get experience in each of the following: nursery school, kindergarten and primary grades. Prerequisites: successful completion of the total curriculum in the student's major field. 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, observations, 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. 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: successful completion of the total curriculum in the student's major field. 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. Observations required. 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, one 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-Vocational 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.

PHYSICAL SCIENCE (27)

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 laboratory period per week. Credit, four hours.

27-201. PHYSICAL SCIENCE SURVEY. A survey of the physical sciences covering the fundamental principles of chemistry and physics. Three lectures and one laboratory period per week. Credit, four hours.

DEPARTMENT OF ENGLISH

Associate Professors: Golts, Goodman, Kenyatta, King (Chairman)

Assistant Professors: Braithwaite, Lawson, B. Steward, D. Steward

Instructors: Haskins, Holley, Mroz, Pinchback, Stringer

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. Credit, three hours.

101. ENGLISH COMPOSITION I. 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. (All students are required to earn a grade of "C" or better or repeat the course.) Prerequisite: A passing score on the English placement tests or successful completion of English 100. Credit, three hours.

102. ENGLISH COMPOSITION II. This course is a continuation of English 101. Emphasis will be placed on longer critical writing and the research paper. (All students are required to earn a grade of "C" or better or repeat the course.) Prerequisite: English 101. 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.

110. INTRODUCTION TO CHILDREN'S THEATRE. This course covers play and audience analysis, directing methods and production techniques such as design of sets, props and costumes. Each student participates in the Fall children's theatre production at the college either by performing or doing technical production work. 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. 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. Credit, three hours each.

203. MODERN 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 and 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. 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. Credit, three hours.

207. 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 101-102. Credit, three hours.

208. INTRODUCTION TO COMMUNICATIONS. This course will focus on the genesis and impact of mass communications on the modern world. Emphasis will be focused upon major trends which have influenced the development of cinema, radio, television and print media. Field experiences will be a part of the course. Prerequisite: English 101-102. 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. 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. 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. 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.

cance. Prerequisite: English 101-102. 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. Prerequisite: English 101-102. 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, 205-206. Credit, three hours.

315. JOURNALISM. This course gives basic instruction and practice in news gathering and in writing for publication. Prerequisite: English 101-102. Credit, three 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. Prerequisite: English 101-102. 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, 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, 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. 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, 205-206. Credit, three hours.

322. DIRECTING I. This course will give an overview of the background and techniques of the director in the theatre. Emphasis will be placed on the study of composition, scene analysis, movement, picturization and rhythm from a director's viewpoint. The course will culminate in a public performance and a video tape project. Prerequisites: English 107, 109, or 110. Credit, three hours.

400. TEACHING GRAMMAR AND COMPOSITION. In this course the student learns how to teach basic English skills (grammar and mechanics) as well as composition skills by observing, evaluating and assisting the instructor in an English 100 or English 101 class (two hours of class work—one hour of conference with instructor per week). Prerequisites: Junior standing and consent of department. Credit, three hours.

DEPARTMENT OF FOREIGN LANGUAGES

Assistant Professors: deGrasse, Phillips* (Acting Chairwoman), Toscano
Instructor: Tartar
Departmental Assistant: Dula

The objectives of the Foreign Language Department are to: develop cross-cultural understanding and the ability to communicate effectively in the language, provide career-related language skills and prepare majors for graduate studies and/or teacher certification.

CURRICULUM IN FOREIGN LANGUAGES

NON-TEACHING MAJOR: All students who select a major within the Department of Foreign Languages must complete the general education program (see General Education Requirements). In addition, for a major in FRENCH or SPANISH, thirty (30) hours are required: 101-102, 201-202, 301-302, 303, 304, 305, 306, 406 and one (300 or 400 level) elective.

TEACHING MAJOR: Language majors seeking state certification to teach in secondary schools must also take: Psychology 201, 302, 316; Education 204, 405, 411, 412; Foreign Language 222 and 409, and History 104. All coursework must be completed prior to student teaching. Teaching majors are encouraged to minor in a second language.

MINOR: For a minor in French, Spanish or German, the following eighteen (18) hours are required: 101-102, 201-202, 303-304.**

PLACEMENT: Students having completed two or more high school units of a foreign language with a C or better can place out of lower level language courses through the Modern Language Association (MLA) Cooperative Language Test.

INDIVIDUALIZED INSTRUCTION OPTION: The department offers an alternative way to study a language through a self-paced mastery based program. The student works at his own pace and meets with the instructor during class hours in the learning lab for individual instruction. Presently only Spanish is offered under this option. For information and advisement contact the individualized Spanish professor. (ISP)

COURSE DESCRIPTIONS

OTHER LANGUAGES (07)

College credit earned at an accredited institution in any language not offered by the Department is transferable under this department number through intermediate level only.

*Leave of absence, 1982-1983.

**Except where proficiency exam results places the student at a higher level.

FRENCH (08)

101-102. ELEMENTARY FRENCH I, II. An intensive oral-aural approach to French for student 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 I, II. 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.

222. FRENCH CONVERSATION. Practical use of the language 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. Middle Ages through the seventeenth century. Prerequisite: French 201-202. Credit, three hours.

302. SURVEY OF FRENCH LITERATURE. From 18th to 20th centuries. 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 style. Class conducted in French. 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. 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 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: Twelve (12) semester hours of French. Credit, three hours.

399. INDEPENDENT STUDY IN FRENCH. 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 French and 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.

406. HISTORY OF FRENCH LANGUAGE. The study of the evolution of the French language from vulgate Latin to present day. Presentation of the significant linguistic changes in the context of historical factors and cultural attitude. Prerequisite: 303. 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 procedure discussed. Prerequisite: Twelve (12) semester hours of French. Credit, three hours.

GERMAN (09)

101-102. ELEMENTARY GERMAN I, II. 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 I, II. 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.

222. GERMAN CONVERSATION. Practical use of the language and development of fluency and correctness in speaking. Prerequisite: 202 or 201 and consent of instructor.

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.

301. SURVEY OF GERMAN LITERATURE. German literature from its earliest writings to 18th Century.

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

303. ADVANCED GERMAN GRAMMAR AND COMPOSITION. A detailed study of German syntax. Free composition and idiomatics. Class conducted partly in German. Prerequisite: Twelve (12) semester hours of German. Credit, three hours.

304. GERMAN DICTION AND CONVERSATION. Practice in speaking German. Emphasis on aural understanding and oral composition. Class conducted in German. Prerequisite: Twelve (12) semester hours of German. Credit, three hours.

305. 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 in German. Prerequisite: Twelve (12) semester hours of German. Credit, three hours.

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.

SPANISH (10)

101-102. ELEMENTARY SPANISH I, II. 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.

101.05-102.05 INDIVIDUALIZED ELEMENTARY SPANISH, I-II. A self-paced mastery based individualized instruction option to the traditional classroom equivalent. (Course description for 101-102 above applies to this course.)

201-202. INTERMEDIATE SPANISH. I, II. 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: 202 or 201 plus 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. 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. 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 of 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.

399. INDEPENDENT STUDY IN SPANISH. 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. Prerequisite: Twelve (12) semester hours of Spanish. Credit, three hours.

460. HISTORY OF 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. Credit, three hours.

ITALIAN (11)

101-102. ELEMENTARY ITALIAN I, II. 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.

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION AND RECREATION

Professor: Doherty

Associate Professor: *George

Assistant Professors: Burden, Williams, Wyche (Chairwoman)

Instructors: Lomax, McGuire, Russell, Wooley

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, Recreation and Community Health.

Students who are non-majors who are 27 years of age and older as well as veterans 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 the school colors (red and blue) 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 202, 203, 205, 211, 214, 217, 301, 304, 309, 310, 311, 312, 313, 318, 401, 403, 405 and Physical Education Electives: four credits; Health Education 101, 201, 210, 308 and Health Electives: three credits; History 104; Education 204, 312, 411, 412; Sociology 201; Psychology 316, Biology 204; Home Economics 301.

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, 201, 204, 210, 216, 217, 305, 308; Physical Education 304, 318, 403; Education 204, 309, 312, 411, 412; Chemistry 100; History 104; Psychology 208, 302, 316; Sociology 201, 401; Biology 207, 208; Home Economics 301; Electives: three credits.

RECREATION MAJOR: Students who select the Recreation 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 202, 203, 204, 205, 209, 211, 214, 219, 222, 301, 304, 306, 309, 310, 313, 401, 403, 407, 416; Health Education 101, 201, 210; Education 204, 312; Sociology 201, 202, 301, 401; Music 201; History 104; Art 102; Biology 204; Natural Resources 301; Psychology 316; Electives: two credits.

*Disability

COMMUNITY HEALTH MAJOR: Students who select the Community Health 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, 201, 204, 216, 217, 305, 416 and Health Education Electives: three credits; Nursing 102; Sociology 201, 303, 401, 410; Natural Resources 105; Psychology 206, 208, 302; Psychology or Sociology Elective: three credits; Chemistry 100; Biology 207, 208; Education 312; Home Economics 301; Urban Affairs 308; Electives: three credits.

RECREATION MINOR: For a minor in Recreation, the following course requirements must be completed for a total of eighteen (18) credits: Physical Education 204, 301 or 303, 309, 407, and Natural Resources 301. Six hours to be selected from: Physical Education 202, 205, 209, 211, 214, 220, 222, 306, 318, 410.

COURSE DESCRIPTIONS

HEALTH EDUCATION (15)

101. PERSONAL HYGIENE. This course provides an 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.

201. FIRST AID, CPR AND SAFETY. Materials of the standard Red Cross courses as they relate to health and safety in the elementary and secondary schools. 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.

210. ATHLETIC INJURIES. The organization and administration of an athletic training program and the prevention, diagnosis, and treatment of athletic injuries. Credit, two hours.

216. PUBLIC AND COMMUNITY HEALTH. An indepth study of current major public health problems. The organization, administration and supervision of official and voluntary agencies and their role in the solution of community health problems. Credit, three hours.

217. OBSERVATION AND FIELDWORK. Observation and fieldwork at a selected health agency (Community Health majors only). Prerequisites: Health Education 101 and 216 (may be taken concurrently). Credit, two hours.

219. HUMAN SEXUALITY. Discussion of the basic aspects of human sexuality, including development of sex roles, myths and attitudes regarding sex, and physiology of sexual response. Prerequisite: Health Education 101. Credit, two hours.

224. SUBSTANCE USE AND ABUSE. Habits, attitudes and practices toward the use of medication, alcohol, tobacco and illegal drugs in American culture and the implications of such use for one's health. Prerequisite: Health Education 101. Credit, two hours.

302. DEATH AND DYING. A study of the problems surrounding death and dying both for self and others including ethical issues of euthanasia, preparation for dying, care of the dying, bereavement and funerals. Prerequisite: Health Education 101. Credit, two hours.

305. CONSUMER HEALTH. An indepth study of the factors involved in the selection and evaluation of health services and products. Emphasis includes medical quackery, consumer protection laws and organizations, fad foods and influences of advertising upon consumer choices. Prerequisite: Health Education 101. Credit, two hours.

308. METHODS AND MATERIALS IN ELEMENTARY HEALTH EDUCATION. Methods and materials of 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.

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.

416. HEALTH PRACTICUM. Off-campus work for community health majors. Students will be placed in community health agencies or public health facilities for field instruction. Prerequisites: Completion of all required courses in major field. Credit, twelve hours.

461. DRIVER AND TRAFFIC SAFETY EDUCATION. Driver and Traffic Safety Education is a four (4) 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 a 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.

NOTE: 16-100 is a prerequisite to courses 16-103 through 16-120. Exceptions made to this prerequisite must be by departmental consent.

101. SPORTS, SKILLS AND TECHNIQUES I. Instruction, practice and evaluation in the fundamental skill basic to successful performance in field hockey, soccer, football and basketball. Required for physical education majors. Credit, one hour.

102. SPORTS, SKILLS AND TECHNIQUES II. Instruction, practice and evaluation in the fundamental skill basic to successful performance in volleyball, baseball, softball, track and field. Required for physical education majors. Prerequisite: Physical Education 101 or consent of instructor. Credit, one hour.

103. FUNDAMENTALS OF ANGLING. Skills, techniques and terminology of angling. Credit, one hour.

106. FUNDAMENTALS OF BASKETBALL AND VOLLEYBALL. Skills, rules, strategies, and terminology of basketball and volleyball. Credit, one hour.

107. FUNDAMENTALS OF GYMNASTICS AND TUMBLING. A course designed to teach the skills of beginning and intermediate gymnastics and tumbling activities. Credit, one hour.

109. FUNDAMENTALS OF TOUCH FOOTBALL AND SOCCER. Skills, rules, strategies and terminology of touch football and soccer. Credit, one hour.

110. BEGINNING SWIMMING. Basic skills in swimming and non-swimming rescues. Credit, one hour.

111. FUNDAMENTALS OF WEIGHT TRAINING. Skills, techniques, terminology, and practice of weight training. Credit, one hour.

112. FUNDAMENTALS OF BOWLING. Skills, rules, techniques, and terminology of bowling. Course Fee: \$8.00. Credit, one hour.

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

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

115. FUNDAMENTALS OF MODERN DANCE. Skills, techniques, and basic patterns of movement of modern dance. Credit, one hour.

116. FUNDAMENTALS OF GOLF. Skills, rules, techniques and terminology of golf. Credit, one hour.

117. FUNDAMENTALS OF FIELD HOCKEY, SOCCER AND SPEEDBALL. Skills, terminology, techniques, rules, and strategies of field hockey, soccer, and speedball. Credit, one hour.

118. FUNDAMENTALS OF SKATING. Terminology, balance, and skill techniques of individual and partner skating. Course fee: \$20.00. Credit, one hour.

119. FUNDAMENTALS OF FENCING. Rules, skills, techniques, and terminology of fencing. Credit, one hour.

120. FUNDAMENTALS OF TENNIS. Skills, rules, techniques, and terminology of tennis. 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 and referral of instructor required. Credit, one hour for each course.

202. TECHNIQUES AND SKILLS IN GYMNASTICS AND TUMBLING. Theory and practice: instruction in teaching techniques of conditioning exercises, gymnastics and tumbling exercises. Credit, one hour.

203. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION. Historical and philosophical treatment of principles and objectives in physical education. Credit, three hours.

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.

207. PHYSICAL EDUCATION SKILLS. Coaching and officiating football. Credit, one hour.

208. PHYSICAL EDUCATION SKILLS. Coaching and officiating baseball. Credit, one hour.

209. PHYSICAL EDUCATION SKILLS. Coaching and officiating basketball. Credit, one hour.

211. TECHNIQUES AND SKILLS IN RHYTHMICS AND DANCE. Basic skills, teaching techniques, materials, and program organization of dance activities in physical education and recreation. Settings including folk, square, social and aerobic dance. Credit, one hour.

212. PHYSICAL EDUCATION SKILLS. Coaching and officiating softball. Credit, one hour.

213. PHYSICAL EDUCATION SKILLS. Coaching and officiating field hockey and soccer. Credit, one hour.

214. 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.

215. PHYSICAL EDUCATION SKILLS. Coaching and officiating volleyball. Credit, one hour.

217. OBSERVATION AND FIELDWORK. Observation of classes at all levels of the public school program and assist in the freshman level required general education program. Credit, two hours.

219. OBSERVATION AND FIELDWORK. Observation and fieldwork at a selected recreational agency (Recreation majors only). Credit, two hours.

220. PHYSICAL EDUCATION SKILLS. Coaching and officiating wrestling. Credit, one hour.

222. PHYSICAL EDUCATION SKILLS. Coaching and officiating track and field. 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 by observation and participation. Prerequisite: Physical Education 206. Credit, three hours. (Physical Education majors.)

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. PSYCHOLOGY OF COACHING I. Psychological approach, methods and techniques of coaching and mechanics of officiating athletic teams in football, basketball and volleyball, field hockey and soccer (Open to majors or consent of instructor). Credit, two hours.

312. PSYCHOLOGY OF COACHING II. Psychological approach, methods and techniques of coaching and mechanics of officiating athletic teams in wrestling, track and field, baseball, and softball (Open to majors or consent of instructor). Credit, two hours.

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.

318. 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.

401. KINESIOLOGY. The study and the analysis of human motion. Prerequisites: Biology 101 and 102 and Physical Education 313. Credit, three hours.

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 solution of problems facing the director, teacher and coach. Prerequisite: Physical Education 203. 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. Credit, four hours.

407. CAMPING. Theory and practice in the use of camping skills. Credit, two hours.

410. WATER SAFETY INSTRUCTOR. 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. Prerequisites: 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 fieldwork for Recreation majors. Actual practice in playground supervision, "Y" programs, community centers, pools, etc. Credit, six hours.

DEPARTMENT OF HISTORY AND POLITICAL SCIENCE

Professors: Flayhart, Hartnett

Associate Professors: Gardner, Pu, Spina, Valle (Chairman)

Assistant Professors: Lauter, Smith

The objectives of the Department of History and Political Science are to provide a good liberal education degree, to prepare students for graduate study in history and political science, to prepare students to teach social studies on the secondary level, and to provide service courses in general education for students in other majors.

CURRICULUM OPTIONS

HISTORY MAJOR: A student who chooses this major must complete the requirements of the History Curriculum published separately by the department. Thirty-six hours of history are required, and a minimum grade of "C" must be earned in each course. A student must take 101, 102, 201, and 202. He must also take 24 hours on the 300 or 400 level distributed as follows: six hours of European history, six hours of American history, six hours of either Asian, African or Latin-American history, and six hours of electives, excluding 445.

Foreign language 101 and 102 in the same language are also required.*

SOCIAL STUDIES MAJOR: A student who chooses this major must complete the social studies curriculum published separately by the department. He must take the following courses, and earn a minimum grade of "C" in each of them: History 101, 102 or 107, 202 or 108, 322, and one elective on the 300 or 400 level; Sociology 201, 205 or 206; Geography 101; Political Science 211; Economics 201; Home Economics 309; Psychology 201; and nine hours of Social Science electives (300 or 400 level).

PROFESSIONAL COURSES

History 445 (Methods of Teaching); Psychology 204 and 302; Education 312, 408, 411, and 412.

The student must apply in writing to be admitted to the Teacher Education program during the second semester of his sophomore year. His application must be approved by the department and the Teacher Education Council. Forms for this purpose and a statement of requirements are available in the Education Department.

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 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. An 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 in 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 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 of modern England and the Commonwealth. 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 an 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 chairperson. 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 SCIENCE IN SECONDARY SCHOOLS. Instruction in current methods, materials, and appropriate activities for effective teaching of social science in secondary schools—including preparation of units and projects, demonstrations, visits to schools, and discussions on special problems in teaching social science. 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)

33-103. INTRODUCTION TO GOVERNMENT. A study of power politics focusing on the ends of and constraints on power; the exercise of power by governments, groups, and individuals; theories concerning the distribution of power; variations in governmental power structures and the impact of political power on governmental change. Credit, three hours.

33-211. AMERICAN NATIONAL GOVERNMENT. A detailed examination of the structure and organization of the Presidency, Bureaucracy, Congress, and Supreme Court with secondary emphasis on parties, campaigns, elections, and lobbying. Credit, three hours.

33-212. AMERICAN STATE AND LOCAL GOVERNMENT. A comparative study of government and politics within the fifty states with special emphasis on Delaware. Credit, three hours.

33-221. COMPARATIVE GOVERNMENT. A study of democratic, authoritarian, communist, and developing political systems in both an historical and contemporary context. Credit, three hours.

33-222. WORLD POLITICS. An investigation of the contemporary international system and how influence is exerted in the pursuit of national objectives. Credit, three hours.

33-330. FIELD WORK IN POLITICAL SCIENCE. A supervised experience designed to give the student firsthand knowledge of some aspect of political behavior. Permission of the instructor is required. Credit, three hours.

33-340. GOVERNMENT AND BUSINESS. (See 42-340) A survey of corporate-government relations in the United States focusing on how corporations influence government decision-makers and how government policies affect business operations. Credit, three hours.

33-400. INDEPENDENT STUDY IN POLITICAL SCIENCE. The student will study intensively a selected topic within the field of political science under the guidance of a department member. Permission of the instructor is required. Credit, three hours.

33-466. SEMINAR IN POLITICAL SCIENCE. A specific topic will be developed and publicized at registration each semester this course is offered. Credit, three hours.

33-470. POLITICAL SCIENCE INTERNSHIP. Students interested in this program should consult with a member of the political science faculty. Permission of the instructor is required. Credit, three, six or nine hours.

BLACK STUDIES PROGRAM

Director: Clenora Hudson-Withers

A primary purpose of the Black Studies Program is to broaden the educational experience of the student at Delaware State College. The College 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 actions.

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 experience 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 to be positive and functional for the black community.

BLACK STUDIES MINOR For a minor in Black Studies, seventeen (17) hours are required are 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 following courses.

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.

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.

465. SEMINAR IN AFRICAN HISTORY.

466. SEMINAR IN BLACK STUDIES.

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.

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.

352. RACE, ETHNICITY, AND PUBLIC POLICY. Credit, three hours.

399. INDEPENDENT STUDY. Credit, one, two or three hours.

NOTE: Complete course descriptions for the above courses may be found by referring to the course descriptions listed in the department section of this catalog.

DEPARTMENT OF HOME ECONOMICS

Professor: Adams (Chairwoman)

Assistant Professors: Bunch, Stevenson

Instructors: Harris, Smith

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 emphasis 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 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 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 and adult education programs. Graduates are also prepared for professional work in cooperative extension and home service work with utility, home appliance, poultry and dairy products companies, etc. They are prepared for graduate study in home economics and related fields as well as for homemaking.

OPTION IIA. TEACHING IN SPECIALIZED AREA—OCCUPATIONAL/VOCATIONAL CARE AND GUIDANCE OF CHILDREN. Graduates are prepared to teach in occupational/vocational child care programs and in the area of child development in the high school. They are qualified to teach in preschool programs such as nursery school, day care and head start. Graduates have the preparation for professional work with welfare programs that serve families, family counseling services, parent education, radio, television and research programs. They are also prepared for graduate work in child care and related areas.

OPTION IIB. TEACHING IN SPECIALIZED AREA—CLOTHING, TEXTILES AND FASHION MERCHANDISING. Graduates are prepared to teach Clothing, Textiles and Fashion Merchandising 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. Students have the background for graduate study in this area.

OPTION IIC. TEACHING IN SPECIALIZED AREA—FOOD AND NUTRITION. Students meeting requirements 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, TEXTILES AND FASHION MERCHANDISING. Graduates are prepared for careers oriented to merchandising 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 traditional art courses can enter specialized graduate study to prepare for fashion or textile designing and interior design.

OPTION IV. FOOD AND NUTRITION. Graduates 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 or 205 and 206; six hours in Social Sciences and Education 101; six semester hours in the humanities; six semester hours of mathematics. Students must also take chemistry and/or other science courses as designated in the area of concentration.

All home economics majors are required to take the core of courses in the Department in addition to requirements of respective options; Home Economics 100, 101, 309 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, Textiles, and Fashion Merchandising

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 the 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, major in Home Economics Education must take: Home Economics Education 321 and 322; Education 204, 312, 411 and 412; Chemistry 105; Sociology 201; Art 201; History 104 and Psychology 201 and 302.

OCCUPATIONAL/VOCATIONAL CARE AND GUIDANCE OF CHILDREN: This major offers unique opportunities for study of the child and his family with enriching experiences in a child development laboratory. Current emphasis on culturally disadvantaged children and families provide new professional opportunities for home economists with competencies in child development and family studies.

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 are 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 Occupational/Vocational Care and Guidance of Children must take: Home Economics Education 321; Education 350, 380, 450, 411 and 412; Sociology 201 and 303; Art 203; Psychology 201; Physical Science 201; History 104 and restricted electives as designated for the area.

CLOTHING, TEXTILES AND FASHION MERCHANDISING: The major in this area is prepared for careers in clothing, textiles and fashion merchandising and research. With advanced study and preparation, majors may find employment in fashion or textile designing and interior design, textile testing and research. Students are required to meet the general education requirements and requirements in the Department of Home Economics. Required also are: Business 108; Accounting 205 and 206; Art 203 and 204; Business Law 401; Sociology 201 and 202; Economics 201; Home Economics 402; Management 310; Retailing 320. The student must also take selected courses in the areas of mathematics and science and restricted electives as designated for the area.

A student may qualify as a teacher in the specialized area of clothing textiles and fashion merchandising 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 the requirements of the Department of Home Economics as specified earlier, the following courses are required for teaching majors in Clothing, Textiles and Fashion Merchandising: History 104; Home Economics 321 and 322; Education 204, 312, 411 and 412; Sociology 201; Psychology 201 and 302; and Art 203 and 204.

MINOR IN CLOTHING, TEXTILE AND FASHION MERCHANDISING: A student who desires a minor in this area must complete twenty-one (21) hours in Clothing, Textiles and Business. Confer with Department Chairperson for specified courses.

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 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; Chemistry 105 and 106; Accounting 205; Sociology 201; Home Economics 402 and restricted electives as designated for the area of study.

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 105 and 106; Sociology 201; Psychology 201 and 302; Art 203; History 104; Home Economics Education 321 and 322 and Education 204, 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 professional opportunities, the major is expected to declare a special area of interest in 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; take Art 203; Chemistry 105; Psychology 201; Sociology 201; Education 312 and Home Economics 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. A field experience component is provided in careers. Required of all freshmen who major in home economics. One lecture per week. Credit, one hour.

321. METHODS OF TEACHING HOME ECONOMICS. This course provided an orientation to home economics as a field of study, to the teaching profession and to vocational education for pre-service home economics education students. The major concepts included are: History and Philosophy; Personal and Professional Development; Vocational Home Economics Programs; Instructional Planning; The Learning Process/The Learner; Instructional Process, Techniques and Materials. Some attention is given to current

research trends in home economics education. A supervised field experience in the public schools is part of the course. Three lectures per week. Credit, three hours.

322. ADVANCED METHODS IN HOME ECONOMICS. This course is designed to integrate basic concepts learned in 18-321 methods course with selected, more in-depth concepts in home economics education. Introduced in this course are the following concepts: standards, curriculum development and evaluation techniques in home economics programs; departmental and classroom management. Legislation/grantsmanship affecting home economics education will be given some attention in this course. Students engage in a supervised field experience in the public schools. Prerequisite: HE 321. Three lectures per week. Credit, three 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 is 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 his/her advisor and the department chairperson. Credit, one to three hours.

A junior or senior majoring in any area of home economics may enroll in this independent study course with approval.

OCCUPATIONAL/VOCATIONAL CARE AND GUIDANCE OF CHILDREN

101. PERSONAL AND FAMILY RELATIONS. A study of personal problems and relationships in families. Periods of adjustment throughout the life cycle will be considered. The functions of courtship and dating as basis for mate selection. Consideration of traditional and alternative forms of marriage. Recognition and evaluation of personal and social conditions placing stress on the family. Three lectures per week. Credit, three hours.

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 the opportunity to work with young children in the Child Development Laboratory. Prerequisite: HE 101 or its equivalent. Three lectures and one laboratory period per week. Credit, three hours. Open to juniors 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 interpersonal 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 for 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. Open to juniors and seniors in other disciplines with comparable prerequisites. 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 with a day care component. Open to juniors and seniors in other disciplines with comparable prerequisites. 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 FASHION MERCHANDISING

104. CLOTHING, 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. Open to students in other disciplines. 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. Open to students in other disciplines. 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. Open to students in other disciplines. 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. Prerequisite: CHEM. 101, 102, 301. 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.

307. TECHNIQUES IN CLOTHING AND FASHION MERCHANDISING. Opportunity is provided for students to develop competencies needed for specific clothing problems and effective merchandising of fashion products. Open to other students with some background in clothing and permission. Two lectures per week. Credit, two 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 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 textiles, fibers and fabrics. Prerequisites: CHEM. 101, 102, 301, and 302; HE 302. One lecture and two laboratory periods per week. Credit, three hours.

404. SEMINAR IN FASHION MERCHANDISING. Emphasis is upon merchandising information, product knowledge and consumer needs. One period per week. Credit, one hour.

405. ADVANCED CLOTHING. The emphasis of this course is on advanced clothing construction techniques including tailoring a suit or coat. Prerequisites: HE 104 and 204. One lecture and two laboratory periods per week. Credit, three hours.

*402. FIELD EXPERIENCE is also required in this option. See description under FOOD AND NUTRITION.

FOOD AND NUTRITION

102. INTRODUCTION 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; analysis of dietary requirements of persons of different ages during growth and maintenance. Prerequisites: Biology 101 and 102 or equivalents. Three lectures per week. Credit, three hours.

308. ADVANCED NUTRITION. A review of current developments in human nutrition and their effects on health and efficiency. Prerequisites: HE 301; Chemistry 105 and 106; Biology 204. Three lectures per week. Credit, three hours.

401. INSTITUTIONAL MANAGEMENT. Problems involved in organizing and managing food service establishments; selection, arrangement and installation of institutional equipment; food service policies; food cost and control. Three lectures per week. Credit, three hours.

402. FIELD EXPERIENCE.* A supervised on-site participatory experience in a clothing/fabric business, food establishment or program, cooperative extension or other community based program related to the area of specialization and the student's professional goal. Opportunity is provided for independent study and investigation in a problem area oriented to business and industry. This is a "block" course offered the second semester of the senior year. It is required of students majoring in Clothing, Textiles, and Fashion Merchandising, Food and Nutrition and General Home Economics. Prerequisites: All courses in students curriculum except "block" courses. Credits, six hours for Food and Nutrition and General Home Economics; nine hours for Clothing, Textiles and Fashion Merchandising.

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 involved in manipulating ingredients for comparative methods of food preparation, and the judging of the product using various methods. Prerequisites: HE 102, 203; Chemistry 105 and 106. Two lectures and one three-hour laboratory per week. Credit, three hours.

409. QUANTITY FOODS. Methods of food preparation involving large quantities, recipe standardization, purchasing, storage and service. Prerequisite: HE 203. One lecture and two laboratory periods per week. Credit, three hours.

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.

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. Consideration is also given to financial planning as it relates to the individual and the family. Three lectures per week. Credit, three hours.

406. HOME MANAGEMENT ADMINISTRATION. Supervised living experiences in Home Management Residence for a period of four 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

*Required of majors in Clothing, Textiles and Fashion Merchandising, Food and Nutrition and General Home Economics.

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, four 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.

DEPARTMENT OF MATHEMATICS

Associate Professors: Bragg (Chairman), Frankl, Smith, Tisdal, Washington

Assistant Professors: Gibson, Hamilton, Hawley, Tighe

Departmental Assistants: Davis, Oyer

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 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 FOR MAJORS

MATHEMATICS: The requirements for a major in Mathematics are: Mathematics 221, 222, 223, 302, and 312; Physics 201 and 202 and a minimum of 12 hours selected from Mathematics 301, 303, 311, 401, 402, 411, 412, 498, and 499.

MATHEMATICS (EMPHASIS IN MATHEMATICAL PHYSICS): The requirements for a major in Mathematics with an emphasis in Mathematics Physics are as follows: Mathematics 221, 222 and 223; a minimum of 12 hours selected from 301, 302, 303, 311, 312, 401, 402, 411, 412, 415, 498, and 499; Physics 201 and 202; and a minimum of six hours selected from Physics 311, 312, and 404.

MATHEMATICS/COMPUTER SCIENCE: The requirements for a major in Mathematics/Computer Science are Mathematics 208, 209, 218, 221, 222, 223, 301, 498, 499; Physics 201, 202; and a minimum of twelve (12) hours selected from Mathematics 217, 308, 309, 415; Electrical Engineering 202, 205.

MATHEMATICS EDUCATION: The requirements for a teaching major in Mathematics are: Mathematics 221, 222, 223, 403; Education 204, 405, 411, and 412; Physics 201 and 202; Psychology 201, 204, 302 and 316; and a minimum of eighteen (18) hours selected from courses numbered 200 or higher.

MATHEMATICS/MECHANICAL AND AERONAUTICAL ENGINEERING: A student is required to complete a non-teaching option for a major in mathematics and the requirements for the degree in Mechanical and Aeronautical Engineering as listed under the curricula options in the Cooperative Engineering program.

OPTIONS FOR 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. Prerequisite: one unit of high school algebra. 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. 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. 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.

211. PROBABILITY I. An introduction to finite probability and the basic concepts of statistical estimation and tests of hypotheses with applications from the social and natural sciences. Topics include elementary probability theory, descriptive statistics, the binomial and normal distributions, confidence intervals, basic concepts of tests of hypotheses, chi-square tests, non-parametric tests, student's t-tests, correlation, and linear regression. Prerequisite: Mathematics 103 or approval of the Department of Mathematics. Credit, three hours.

217. SCIENTIFIC PROGRAMMING. A course treating the use of the computer in the analysis and solution of problems in science and technology using FORTRAN as the primary language. Prerequisites: Mathematics 208 and 221. Credit, three hours.

218. COMMERCIAL PROGRAMMING. A course introducing COBOL and RPG and the use of these languages in applying the computer in the business environment. Prerequisites: Mathematics 208 or Business 351. 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. This course is a treatment of probability theory with stochastic processes. Topics include sample spaces, probability measures, discrete and continuous random variables, sums of independent random variables, law of large numbers and the central limit theorem. Markov chain models and their applications in the social and natural sciences are included. Corequisite: Students must have taken or must be concurrently enrolled in Mathematics 222 or 232. Credit, three hours.

308. COMPUTATIONAL MODELS. The analysis of industrial system models via simulation. Topics include probability, queuing theory, random number generation, and computer simulation languages. Prerequisites: Mathematics 208, 211, 222. Credit, three hours.

309. DETERMINISTIC MODELS. Topics included are linear programming, decision theory, evaluation of tree structures, games with finite and infinite trees, and artificial intelligence. Prerequisites: Mathematics 209. 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. Prerequisite: Mathematics 222. Credit, three hours.

411-412. ALGEBRAIC STRUCTURES. A study of groups, rings, integral domains, fields, and topics in linear algebra. Prerequisite: Mathematics 222. Credit, three hours each.

415. NUMERICAL ANALYSIS. An introduction to the principles and techniques of the solution of numerical problems by iterative procedures including topics in approximation of functions and numerical solution of algebraic, differential, and integral equations. Prerequisites: Mathematics 217 and 301. Credit, three hours.

498-499. SEMINAR IN MATHEMATICS. A treatment of selected topics in mathematics. Prerequisite: consent of the department. Credit, two hours each.

DEPARTMENT OF MUSIC EDUCATION

Professor: Brockington (Chairman)
 Assistant Professors: Carter, Cooper, Morrison, Pigler Johnson
 Adjunct Professor: McCarthy
 Director of College Bands: Brock
 Departmental Assistants: Hearn, Rinker

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.

Music majors must meet the competency requirements established in the applied music sequence (in a single performing medium chosen for their major concentration) for a total of seven semesters. In addition, music majors must attend departmental student meetings, music seminars and lyceum features, and participate in student recitals. Majors must also 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 seven 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 seven 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 9-hour band and chorus requirement with the consent of the departmental chairman.

MUSIC EDUCATION MINOR: For a minor in Music Education, a total of twenty-one (21) credits are required. They are: Music Theory I & II—six credits; Applied Piano (Minor Performing Medium)—four credits; Applied Major Medium if not Piano—four credits; and Ensemble—seven credits.

APPLIED MUSIC: Instrumental, keyboard, and vocal instruction in applied music. The development of performing skills is a basic objective. Applied music instruction is 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.

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.

102. MUSIC EDUCATION-JAZZ ENSEMBLE (elective). Performance of jazz music in both small and large ensembles. Instruction will be provided in improvisation and ensemble performance techniques for various styles of jazz from the Swing Era to contemporary styles. Credit, one hour.

103. CHAMBER ENSEMBLE (elective). Performance of music literature for small woodwind, brass, and percussion ensembles. Instruction will be provided in performance techniques used in chamber music of various stylistic periods.

105-106, 205-206, 305-306, 405-406. APPLIED CLASSICAL GUITAR.

125. CLASS PIANO (Non-Music Majors). Credit, one hour.

135-136, 235-236, 335-336, 435-436. APPLIED PIANO.

145-146, 245-246, 345-346, 445-446. APPLIED VOICE.

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, 295-296, 395-396, 495-496. APPLIED STRINGS.

Credit, one hour each. Open to Music Majors only.

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. Students learn the fundamentals of music, i.e., notation, terminology, scales, rhythms, tempos. Beginning instruction is given in sightsinging, rhythmic, and melodic dictation. Five meetings per week. Credit, three hours.

114. THEORY II. Students learn chord structure, the use of primary and secondary chords in harmony. Instruction is continued in sightsinging and dictation. Five meetings per week. Prerequisite: Music Ed. 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. Five meetings per week. 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 sightsinging 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.

*Students desiring to major in Music Education must take a test in musicality prior to registering for their first semester.

213. THEORY III. The study of harmony is continued with non-harmonic tones, chromatic chordal progressions, modulation. Instruction is continued in sightsinging and dictation. Five meetings per week. Prerequisite: Music Ed. 114. Credit, three hours.

214. THEORY IV. Students learn harmonization, modulation, improvisation and transposition on the piano; sightsinging and dictation are continued. Five meetings per week. Prerequisite: Music Ed. 213. Credit, three 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 and 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 trumpet. 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 meters, 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 schools are emphasized. Prerequisite: Music 322. Credit, three hours.

413. ARRANGING (elective). A study of writing techniques for various combinations of instruments in public school instrumental ensembles. Prerequisites: Music Ed. 322, 410. Credit, two hours.

423-424. MUSIC HISTORY AND LITERATURE. A study of music during the Romantic period (Beethoven and Debussy). The fourth semester includes a study of music of the twentieth century (Les six through Serialism and Chance). Credit, two hours each.

DEPARTMENT OF NURSING

Associate Professors: Braxton (Chairwoman), Mynatt

Assistant Professor: Cypress

Instructors: Copes, Curtis, Lynn, Rasin

Departmental Assistants: Cottrell, Miller, Ralph, 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 overall program is designed to meet the needs of students including average and gifted, whose academic capabilities may not be measurable by traditional means. The primary purposes of the program are (1) to prepare competent professional practitioners, (2) to meet the needs of an intellectually and culturally diverse student population, and (3) to develop an educational base for future specialization and/or graduate study.

The nursing curriculum is four academic years and leads to the bachelor of science degree with a major in nursing. Upper division nursing courses include both nursing theory and related laboratory study. Health agencies including hospitals, nursing homes and clinics, senior centers, and schools in the Delaware area provide the setting for laboratory study in nursing. Practica are also provided in the simulated laboratory in the Department of Nursing and in select homes of clients.

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.

Admission to the Department of Nursing is decided at the departmental level, however, applicants are expected to follow the general admission procedures of the college, which includes presenting scores for the College Board Scholastic Aptitude Test. (SAT) In addition, prospective students should have taken high school chemistry and biology.

CURRICULUM IN NURSING

NURSING MAJOR: Because of the nature of the nursing program sequential selection of courses is important. Successful completion of specified courses in the natural and social sciences and nursing is required for admission to the first nursing course with related laboratory study. Students must follow the prescribed sequence to avoid delay in progressing through the program.

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 101, 207, 208, 305; Chemistry 105, 106; Home Economics 301; Sociology 201; Psychology 201, 316; six (6) hours of Humanities electives: Nursing 102, 205, 206, 301, 302, 303, 401, 402, 403, 405, 406.

COURSE DESCRIPTIONS

NURSING (28)

102. INTRODUCTION TO THE NURSING ROLE. Content is presented to assist the student to develop the role of the professional nurse. The role of the nurse as a health team member is explored with major emphasis on developing a personal philosophy of nursing, principles of problem-solving, the change process and communication are also presented. Credit, two hours.

205. INTRODUCTION TO NURSING CONCEPTS. An introduction to the theoretical framework for a concept of nursing. The role of the nurse in the identification of basic needs and adaptive abilities, and methods of communication will be explored. Experiences in problem-solving based on knowledge of principles from the biological and behavioral sciences will be provided. Prerequisites: Nursing 102. Credit, three hours.

206. INTRODUCTION TO PROFESSIONAL NURSING PRACTICE. Components of the nursing process as the basis for professional nursing practice will be introduced. Emphasis will be on correlating cognitive, affective, and psychomotor nursing skills basic to the understanding and care of clients. Related simulated and clinical laboratory study. Prerequisites: Sociology 201; Psychology 201; Biology 101, 207, 305; English 101-102; Chemistry 105-106; Nursing 205. Credit, five hours.

301. MEDICAL-SURGICAL NURSING. A course designed to assist the student to gain increasing skill in meeting the adaptive needs of clients and to develop skills in recognizing responses to illness. Related laboratory study. Prerequisites: Nursing 206, Home Economics 301. Credit, twelve hours.

302. PARENT-CHILD HEALTH NURSING. A family-centered course which considers normal pregnancy and childhood from birth to adolescence. Family health maintenance and adaptive problems related to child-bearing and child-rearing families will be emphasized. Prerequisites: Psychology 316, Nursing 301. Credit, twelve hours.

303. ISSUES AND TRENDS IN NURSING. An exploration of the evolution of issues and trends in nursing. Legal aspects of nursing practice also will be considered. Junior Status (Nursing). Credit, two hours.

401. PSYCHIATRIC/MENTAL HEALTH NURSING. A study of individual, family and group psycho-dynamics in adaptive and maladaptive emotional responses. Emphasis is placed on the nurse's role to function as an effective member of a multidisciplinary mental health team in a variety of settings. Prerequisites: Nursing 301 and 302. Credit, six hours.

402. COMMUNITY HEALTH NURSING. Principles of Public Health are correlated with nursing practice in promoting and maintaining the health of individuals, families and groups in the community. Prerequisites: Nursing 301 and 302. Credit, six hours.

403. ADVANCED COMPREHENSIVE NURSING. Nursing care of individuals with complex medical-surgical nursing problems as well as the care of multi-problem families. Related laboratory study. Prerequisites: Nursing 401 and 402. Credit, ten hours.

405. NURSING LEADERSHIP AND ISSUES IN NURSING. An exploration of management and leadership processes as they apply to nursing. Related laboratory study arranged with 28-403. Prerequisites: Nursing 303 and Senior Status. Credit, two hours.

406. NURSING RESEARCH. An introduction to the fundamentals of nursing research and the concepts necessary to critique and evaluate nursing research. Prerequisites: Senior Status. Credit, two hours.

NOTE: A malpractice insurance premium, approximately \$12.50, is paid annually in the fall by nursing students enrolled in all nursing courses except Nursing 102 and 205. (The amount of the premium will vary according to the premium charged to the college by the insurance company.)

DEPARTMENT OF PHILOSOPHY

Associate Professor: Price (Chairman)

Instructor: Taylor

The Department of Philosophy offers courses designed to develop the student's ability to think clearly and critically throughout a wide range of problems and to stimulate his or her interest in fundamental questions concerning existence, knowledge and values.

Students 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 electives in philosophy.

Students who have decided to minor in philosophy must notify the Department Chairman of this as soon as possible, preferably before the beginning of their junior year.

COURSE DESCRIPTIONS

PHILOSOPHY (03)

101. CRITICAL THINKING. The aim of the course is to develop the student's ability to reason more effectively, i.e., to analyze problems, identify the issues. Critically evaluate evidence, argue logically and reach and be able to defend justifiable conclusions. Students write argumentative essays on contemporary issues. Credit, three hours.

201. INTRODUCTION TO PHILOSOPHY. A basic introduction to the main areas of philosophy.

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 judgment. 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 cogently criticize the reasoning of others. Credit, three hours.

207. PHILOSOPHY OF SCIENCE. An examination of the basic nature of scientific theories, methods and key concepts, 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 classical period of philosophic thought 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 Bacon, Hobbes, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume and Kant. Credit, three hours.

304. POLITICAL PHILOSOPHY. An examination of the theories of several classic writers in the field of political philosophy, e.g., Hobbes, Rousseau, Mill, Lock and Rawls.

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 doctrines 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.

416. SELECTED TOPICS IN PHILOSOPHY. See the instructor or the departmental chairman for information on course content. Prerequisite: Departmental approval. Credit, three hours.

DEPARTMENT OF PHYSICS AND ASTRONOMY

Professors: Helmy (Chairwoman), Purdy
Associate 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 forty-four (44) hours of Physics including the following: Physics 201-202, 305, 311-312, 316, 323-324, 401-402, 404, 408; Chemistry 101-102; and nine (9) credits of technical electives.

Every non-teaching physics major must minor in mathematics. The minor program includes: Mathematics 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 30 hours of physics including: Physics 201-202, 323-324, 305, 316, 401, 409. Every physics teaching major must take Astronomy 101; Biology 100; Chemistry 101-102; Mathematics 208, 221, 222, 223, 301; Education 204, 312, 405, 411, 412; Psychology 204, 302; Geology 101; Ecology 205.

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

CIVIL ENGINEERING MAJOR: See Civil Engineering Option under Engineering Program for specific requirements.

PHYSICS/CIVIL ENGINEERING MAJOR: See Physics/Civil Engineering Option under Engineering Program for specific requirements.

ELECTRICAL ENGINEERING MAJOR: See Electrical Engineering Option under Engineering Program for specific requirements.

PHYSICS/ELECTRICAL ENGINEERING MAJOR: See Physics/Electrical Engineering Option under Engineering Program for specific requirements.

MECHANICAL/AEROSPACE ENGINEERING MAJOR: See Mechanical/Aerospace Engineering Option under Engineering Program for specific requirements.

PHYSICS/MECHANICAL/AEROSPACE ENGINEERING MAJOR: See Physics/Mechanical/Aerospace 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 treatment of the solar system, stars and galaxies, and cosmology. Planetary motion and evolution, stellar evolution, black holes, pulsars and quasars, and the main cosmological models are studied. While it is beneficial to take 101 before 102, it is not absolutely necessary. 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 312. Credit, three hours.

302. ASTROPHYSICS. The laws of radiation are applied to stars and nebulae to determine color classifications, temperatures, and luminosities. Spectrum analysis: constitution of stars and interstellar matter. Three lectures per week. Prerequisite: Physics 313. 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. Three lectures and one laboratory period. Prerequisite: Completion of the mathematics requirements under general education. Credit, four hours each.

121. CONCEPTS OF PHYSICS I. Designed primarily for the non-science major. A descriptive treatment of the basic principles of classical physics. Motion, energy, thermal physics, sound and optics are treated in a conceptual, largely non-mathematical format. There are no mathematics or science prerequisites. Two lectures and one laboratory period per week. Credit, three hours.

122. CONCEPTS OF PHYSICS II. Designed primarily for the non-science major. A descriptive treatment of the basic principles of electrical and magnetic phenomena is presented in a conceptual, largely non-mathematical format. There are no mathematics or science prerequisites. Two lectures and one laboratory period per week. Credit, three hours.

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. There are no mathematics or science prerequisites. 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.

141. THE SCIENCE OF HI-FI. An introductory course for the non-science major which investigates the principles underlying hi-fidelity sound reproduction equipment and techniques. Topics covered include microphone and speaker design, radio transmission, receiver and amplifier operation, and record and tape function. There are no mathematics or science prerequisites. Two lectures and a two-hour laboratory each week. Credit, three hours.

200. ANALYSIS OF PHYSICAL SYSTEMS. An elementary course covering physical dimensions and fundamental units, vectors and scalars, rates, vibrations and waves.

Emphasis will be on the application of concepts to the physical sciences and engineering. Three lectures 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. Three lectures and one laboratory period per week. Corequisites: Mathematics 221-222. Credit, four hours each.

203. INTRODUCTION TO MODERN PHYSICS. An elementary treatment of topics in modern physics. Three lectures per week. Corequisite: Mathematics 103 or 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 duality of light, the development of the Bohr model of the atom, and nuclear physics. One lecture 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 requirements under general education. Credit, three hours.

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.

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.

311-312. PHYSICAL MECHANICS. An intermediate course covering the mechanics of single particles, systems of particles and rigid bodies. Forces and torques are first investigated through the equilibrium of structures and finally through the study of dynamic systems, where the utilization of conservation principles is emphasized. Fluid dynamics and the dynamics of rigid bodies are studied and generalized coordinates and Lagrange's equations are introduced. Four lecture periods per week. Prerequisites: Mathematics 221-222; Physics 201-202. Credit, four hours each.

316. 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, crystal optics, lasers and holography, optical instruments and spectroscopy. Three lectures and one laboratory period per week. Prerequisites: Mathematics 221-222; Physics 201-202. Credit, four hours.

323-324. ATOMIC AND NUCLEAR PHYSICS. A course covering an introduction to the special theory of relativity and the quantum theory and their application to the study of the structure of atoms and of atomic nuclei. Other topics include dual nature of matter and waves, x-rays, solid state, particle accelerators, nuclear reactors and detectors, and elementary particles. Three lectures and one laboratory period per week. Prerequisites: Mathematics 221-222; Physics 201-202. Credit, four hours each.

401-402. THEORY OF ELECTRICITY AND MAGNETISM. An intermediate course in the theory of electricity and magnetism. Topics included are electrostatics, electrodynamics, direct 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. Prerequisite: Mathematics 221-222; Physics 201-202 or equivalent. Credit, four hours each.

404. MATHEMATICAL METHODS OF PHYSICS. An intermediate course covering applied differential equations, electromagnetic potential theory, vectors, matrices, hydrodynamics, radiation, and boundary value problems in general. Three lectures per week. Prerequisite: Mathematics 301. Corequisite: Physics 312. Credit, three hours.

405-406. ELECTRONIC PHYSICS. An intermediate course in applied electronics. One lecture and two laboratory periods each week. Prerequisites: Physics 323, 324. 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 311-312 and 323-324. 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. Designed to complement Education 307, this course content will be presented utilizing a variety of methodologies consistent with contemporary instruction in science education. Three lectures and one laboratory period per week. Credit, four hours.*

201. PHYSICAL SCIENCE SURVEY. A survey of the physical sciences covering the fundamental principles of chemistry and physics. Designed to complement Education 304, this course content will be presented utilizing a variety of methodologies consistent with contemporary instruction in science education. Three lectures and one laboratory period per week. Credit, four hours.

NOTE: Although courses in physical science are offered through the Department of Education, non-education majors may select these courses to fulfill their natural science requirements.

DEPARTMENT OF PSYCHOLOGY

Professors: Buck, Matty, Miller (Chairman)

Associate Professor: Kurtz

Associate Professor: Rhodes

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 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, and 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.

PSYCHOLOGY MINOR: For a minor in psychology, eighteen (18) 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 purpose of this course is to supply students with information and practical skills in several areas of applied psychology. The areas covered will include personal adjustment, organizational and industrial psychology, human engineering, and contemporary social problems.

The skills which will be practiced include stress management, communication analysis, assertiveness training, conduct of small group problem-solving sessions, practice in taking standardized tests, design and evaluation of evaluation research. Prerequisite: Introduction to 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 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 103-104; Mathematics 105-106 (Elementary and Early Childhood majors).

303. ORGANIZATIONAL AND INDUSTRIAL PSYCHOLOGY. A course designed to provide the student with an overview of the application of behavioral science principles to organizations in general and industry in particular. The following content areas will be covered: (1) Organizational Theory, (2) Decision Making, (3) Management Decision Making, (4) Human Motivation in the Work Organization, (5) Organizational Development, (6)

Personnel Selection, and (7) Human Engineering. Prerequisite: Introduction to Psychology 201. Credit, three hours.

304. PSYCHOLOGY OF CORRECTIONS. The purpose of this course is to supply the student with basic definitions and explanations of deviant behavior applicable to the correctional environment. The student will become familiar with various approaches to the modification and control of deviant behavior. Data will be presented regarding the effectiveness of various rehabilitation programs. A basic description of the criminal justice system and the role of the behavioral scientist in the system will be described. Prerequisite: Introduction to Psychology 201. 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 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.

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.

414. COUNSELING PSYCHOLOGY II. A course designed to treat counseling theories and provide actual experience with the counseling process. Counseling approaches from the following systems of personality and therapy will be considered: Reality Therapy, Behavioral Therapy, Rational Emotive Therapy, Rogerian Therapy, Adlerian Therapy, and Psychoanalytic Therapy. Students will participate in a group counseling experience supervised by the instructor. Prerequisites: Introduction to Psychology 201 and Introduction to Guidance and Counseling 411. Credit, three 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, and 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, 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, and Junior level status. Credit, two hours. (May be repeated once for credit.)

432. INDEPENDENT STUDY. A course designed to provide the student the opportunity for laboratory or field based research in a selected area of psychology. Prerequisites: Junior level status and consent of the instructor. Credit, three hours.

435. PRACTICA IN APPLIED PSYCHOLOGY. The practica in Applied Psychology provides students the opportunity to observe and/or practice the application of behavior science principles on-the-job. This will be accomplished by assigning students to participate in the operation of various state and local human service agencies, under the guidance and supervision of a college advisor. Practica in Organizational Psychology will be located in various businesses and organizations. Prerequisites: Junior level status and departmental approval. Credit, three to nine hours.

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.

438. INTRODUCTION TO PSYCHOPHYSIOLOGY AND BIOFEEDBACK. Theoretical and practical aspects of human psychophysiology; measurement techniques and the application of psychophysiological principles to problems in developmental, clinical, social, and experimental psychology. Major emphasis on experimental and clinical applications of biofeedback. Prerequisite: minimum Junior level status and permission of instructor. 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.

446. CLINICAL APPLICATIONS OF BIOFEEDBACK. A laboratory-based training course emphasizing the application of biofeedback techniques to a variety of stress-related psychophysiological disorders. Emphasis on techniques of voluntary self-regulation. Prerequisite: minimum Junior level status and permission of instructor. Credit, three hours.

DEPARTMENT OF SOCIOLOGY, URBAN AFFAIRS AND SOCIAL WORK

Assistant Professors: Brittingham, Glaeseman, Goldstein,
Lustfield, Scott, Washington (Chairwoman)
Instructor: Mahoney

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 entrance 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.

The Sociology major provides an in-depth introduction to the 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.

The student who graduates with a degree in Urban Affairs is equipped to serve as a beginning practitioner either in a private sector organization which addresses policy issues or in the public sector at the federal, state, or local level. Each student who selects Urban Affairs as a major has a choice of one of the following options within the major: (1) General Urban Affairs Option, (2) Business Administration-Urban Affairs Option, (3) Economics-Urban Affairs Option, and (4) Computer Science-Urban Affairs Option.

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 to prepare students who wish to pursue graduate study in social work.

Students majoring in Sociology, Urban Affairs and Social Work are strongly encouraged to affiliate with the departmental club during their freshmen year and

to maintain their membership throughout their academic career. Students are also encouraged to affiliate with their discipline related professional organizations.

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, 202 or 203, 205 or 206, 304 or 310, 303, 312, 314, 401, and Economics 201; 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. All courses listed require a minimum grade of "C" except Computers and Foreign Language.

SOCIOLOGY MINOR: For a minor in Sociology, eighteen hours (with a minimum grade of "C") including the following are required: Sociology 201, 303, 312, and 314; six hours at or above the 300 level.

URBAN AFFAIRS MAJOR: An Urban Affairs major must complete the general education requirements including History 108 or 202 and Psychology 201 (See General Education Requirements). In order to graduate with a major in Urban Affairs, students must successfully complete 121-125 hours. Required courses for all Urban Affairs majors, regardless of the option chosen, are: Urban Affairs 250, 314, 321, 400, 441, 442, 450; Sociology 201, 202 or 203, 304, and 305; Economics 201 and 202; Math 208 or Psychology 290; a Social Science elective and an Urban Affairs elective. In order to graduate, students must earn a grade of "C" or better in all of the above required courses.

URBAN AFFAIRS OPTIONS

1. **GENERAL** — In addition to the required courses for all Urban Affairs majors, students who select the general urban affairs option must earn a grade of "C" or better in the following required courses: Sociology 420, Sociology 322 or Psychology 322 or Economics 307, and Business 301.
2. **BUSINESS ADMINISTRATION** — In addition to the required courses for all Urban Affairs majors students who select the Business Administration-Urban Affairs option must earn a grade of "C" or better in the following required courses: Business 108, 205, 310, 401, and two (2) Business electives selected from Business 206, 301, 405, and 427; and Sociology 322 or Psychology 322 or Economics 307.
3. **ECONOMICS** — In addition to the required courses for all Urban Affairs majors, students who select the Economics-Urban Affairs option must earn a grade of "C" or better in the following required courses: Economics 307, and two (2) Economics electives selected from Economics 314, 411, 414, and 418.
4. **COMPUTER SCIENCE** — In addition to the required courses for all Urban Affairs majors, students who select the Computer Science-Urban Affairs option must earn a grade of "C" or better in the following required courses: Mathematics 208, 209, 211, 231, 232, 302, and 308; and Sociology 322 or Psychology 322 or Economics 307.

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). In general, course sequencing as outlined in the Social Work Program curriculum is mandatory. Students should note that in order to graduate with a major in Social Work a total of 123-127 hours must be completed successfully, including forty-five (45) semester hours in Social Work and twenty-

seven (27) hours in corequisite courses. Required Social Work courses are: Social Work 101, 215, 302, 314, 316, 342, 361, 403, 421, 441, 460 (Senior Seminar), Field Instruction I (350) and Field Instruction II (451). Required corequisite courses are: Sociology 201, 203, 322, 401, 410; Economics 201; Political Science 212; Psychology 201; Psychology 290 or Math 208. A grade of "C" or better is required in all Social Work and required corequisite courses.

INTERNSHIP—FIELD INSTRUCTION REGULATIONS

SOCIAL WORK FIELD INSTRUCTION REGULATIONS Candidates for the Bachelor Degree in Social Work must complete 420 clock hours of field instruction successfully in an approved social work agency. Dependent on the College academic calendar, field instruction ordinarily begins on the last Monday in September for the Fall Semester and the first Monday in February of the Spring semester. Students are in the field three days per week for twelve weeks for two semesters. The prerequisites and all other regulations governing field instruction can be found in the Social Work Field Instruction Manual.

URBAN AFFAIRS INTERNSHIPS REGULATIONS Candidates for the Bachelor of Arts Degree in Urban Affairs are required to complete their internships during the second semester of the senior year by completing a 12-week, full-time placement at an approved site. Placement commences on the first Monday in October of the Fall semester or the first Monday of February of the Spring semester. Lists of approved placements are maintained in the office of the Coordinator of Internships and Experiential Education. Students are not accepted as candidates for internships, however, until they have completed all prior academic requirements unless a waiver is granted by the Department in response to a written request. Further, accepted applicants who fail to comply with the posted or published requirements and deadlines of the program risk not being placed until a succeeding semester.

Prior to the student's placement being finalized, a written description of the internship must be on file in the department which conforms to the guidelines of the National Association of Schools and Public Administration (NASPA) and the academic standards of the department, determined jointly by the internship coordinator and the student's academic advisor.

SERVICE-LEARNING INTERNSHIP REGULATIONS Students in majors other than Social Work or Urban Affairs may enroll in the flexible credit service-learning internship for a maximum of nine (9) credit hours. However, permission to enroll is granted only after the student's learning agreement, developed jointly by the student and the placement site, is approved by his academic advisor. Preparation and approval of the service-learning agreement must occur the semester prior to the one for which the agreement has been written. Clock hours for placements range from 6-24 hours, depending upon the credit hours (3-9) being sought. In addition, the projects, research materials, or reports generated by interns must meet the academic standards of their respective departments. Interns who fail to comply with the posted or published requirements and deadlines of the program may be required to repeat the experience. Candidates for the flexible credit offering are strongly advised to enroll in the workshop or internships and experiential education offered each semester (38-460).

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.

302. RURAL SOCIOLOGY. Structure, function and change in rural areas of the United States. The major social systems, social class, demographic characteristics, community organization and value orientation of rural people. Prerequisite: 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.

307. SOCIOLOGY OF AGING. The social significance of aging. A basic consideration of societal aspects of aging including the social, psychological and cultural concomitants of adjustments, changing roles and systems of social relationships. 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 interrelationships of man and his environment and the implications of growth of human populations. Jointly offered by the departments of sociology and agriculture and natural resources. Prerequisite: consent of the instructor. 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 the 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 force 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 the instructor. Credit, three 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 illustration purposes. Prerequisites: Sociology 201 and 310. In the absence of 310, consent of the instructor is required. Credit, three 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 the instructor. Credit, three hours.

430. SENIOR SEMINAR IN SOCIOLOGY. An examination and discussion of selected topics in sociology. Prerequisite: consent of the 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 own areas of specialization and the competencies required to perform as a beginning urban affairs practitioner. Credit, three hours.

306. SYSTEM THEORY: PRINCIPLES AND APPLICATIONS. See Psychology 306.

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 the instructor. Credit, three hours.

309. FOUNDATIONS OF COMMUNITY RECREATION. See Physical Education 309.

314. METHODS OF RESEARCH IN URBAN AFFAIRS. An introduction to research problems, design and procedures and techniques specifically applicable to urban problems. Credit, three hours. (See Sociology 314)

321. URBAN ECONOMICS. See Economics 321.

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.

354. URBAN EDUCATION AND PUBLIC POLICY. An interdisciplinary course which utilizes the tools of 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 the instructor. Credit, three hours.

360. INTRODUCTION TO PUBLIC ADMINISTRATION. The course offers an introductory analysis of public administration. Specifically examined are the patterns of public administration in human and institutional terms, the functions of administrators and the fundamental value questions of politics, policy and ethics. Credit, three hours.

399. INDEPENDENT STUDY. Individual reading or field study by student wishing to pursue a special interest within urban affairs not covered by one of the regular courses. Prerequisite: consent of the instructor. Credit, one, two or three hours.

400. PROGRAM 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 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 development of their internship project.

The second half of the 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 function as practitioners in placements consonant with their academic and career interests, and in accordance with a project design and plan of action prepared during Urban Affairs Seminar I in cooperation with the field supervisor. Supervision of the students onsite will be provided by qualified agency staff, but the internship will be monitored and evaluated by the internship coordinator. The students are responsible for making their own housing and transportation arrangements. Prerequisite: Urban Seminar II. Credit, twelve hours.

460. EXPERIENTIAL EDUCATION AND INTERNSHIPS WORKSHOP. A competency-based workshop designed to prepare students for participation in the experiential education and internship program of the Department of Sociology, Urban Affairs and Social Work. Graded on pass-fail basis. This course does not count toward graduation. No prerequisites. Credit, one hour.

447. EXPERIENTIAL EDUCATION IN URBAN AFFAIRS AND PUBLIC SERVICE PROGRAMS. A supervised experience designed to give students first-hand experience with some aspects of urban affairs and public service programs. Uses service-learning format. Prerequisite: Urban Affairs 460 or consent of internship coordinator. Credit, three to nine hours, based upon contact hours and approval of advisor.

SOCIAL WORK (39)

101. (Formerly 250) INTRODUCTION TO SOCIAL WORK. An introduction to the field of social work. The course provides a beginning understanding of the profession and practice of social work from an historical and current perspective within the societal context. Credit, three hours.

215. (Formerly 315) SOCIAL WELFARE POLICIES AND PROGRAMS I. Description of the nature of social welfare 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. Definitive issues of social policy and planning are connected to the structure of social service delivery and planning. Credit, three hours.

302. (Formerly 303) HUMAN BEHAVIOR AND SOCIAL ENVIRONMENT I. A study of the classical theories that illuminate human behavior provides a framework for examining the forces and factors that change the individual's development and behavior and the transactions within the person's environment. Emphasis is on the stages of growth from a biological, psychological, social and intellectual perspective. A beginning is made in the study of the individual's relationship to the family system and to external groups with the impact of cultural, ethnic, social, urban, and rural environments explored. Credit, three hours.

314. METHODS OF RESEARCH IN SOCIAL WORK. An introduction to research problems, design, and procedures and techniques specifically applicable to social work. Methods of survey, data collection and practice evaluation are considered. The College and adjacent community are the source of the student's practicum. Credit, three hours.

316. SOCIAL WELFARE POLICIES AND PROGRAMS II. This course is designed to examine and analyze social policies and programs related to the field of social work practice. The impact of national, state and local political systems will be evaluated. Citizen and mass participation and its influences on the development of policy will be addressed. Attention to the issues, coordinating programs, services and policy will be considered. Areas of explanation to include: minority movements, income maintenance, housing, health care, mental health, aging and family and child welfare. Credit, three hours.

340. WELFARE OF CHILDREN. Historical perspectives of approaches on child welfare will be reviewed in the context of today's laws, programs, services, and funding. The complexity of government responsibility for service delivery will be examined. Differentials in the public/private systems will be covered as they are reviewed in the traditional child welfare settings handling abused, dependent, neglected, delinquent children. Shift in emphases from separation of children from their families to innovative, creative approaches to keep children at home will be examined. A family-centered perspective will be utilized.

Issues of law and funding impact heavily on children's services, as do connections with related systems of mental health and education. There will be exploration of these issues in an effort to look at services for a child and his family. Impact of advocacy groups on child

welfare policy with implications for the practitioner will be addressed as well as the skill base of the child welfare worker. Case material will document and analyze each phase of the course outline. Credit, three hours.

342. (Formerly 441) SOCIAL WORK PRACTICE SEMINAR I. An introduction to the principles and practices of social work practice. Deals with the structure welfare serving 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 hours.

350. FIELD INSTRUCTION I. Students are placed in a social work agency for the first practice experience to integrate theory and knowledge base of social work learned in class with the actual setting of the social welfare field. Agencies selected for use as field placements are those committed to the value of training undergraduate social work students for generalist practice and who have indicated a willingness to structure actively a number of learning experiences for students. Students are supervised by agency's MSW workers approved by the Social Work Program. Students are responsible for making their transportation and housing arrangements. Prerequisite: all prior required general education, corequisite and social work courses as defined by the Social Work Program. Credit, six hours.

361. (Formerly 260) SEMINAR IN HELPING. Current concepts of the "generalist" practitioner suggest a complimentary of the helping activities and transactions between individual/family client services, entry into the community system and social action. The suggested common base of method is the subject of this seminar. Highlighted is the utilization of disciplined interviewing and relationship techniques, communication skills, capacity for recording, understanding transference/counter-transference knowledge as it impacts on values, and translating systemic work functions into helping procedures. Issues of feedback for the client system/agency/worker/community are addressed as well as the impact of helping on the helper. Credit, three hours.

403. (Formerly 304) HUMAN BEHAVIOR AND SOCIAL ENVIRONMENT II. This course builds on the relationship of the family system to the ecological system. The impact of the social environment on the social functioning and motivation levels of the individual, family or group is analyzed. The interests of the community setting and the importance of economics, urban/rural fields, cultural and ethnic diversity are related to the adaptive skills of the human unit. Credit, three 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.

421. (Formerly 321) ISSUES IN SERVICE DELIVERY. Content Material is designed to address some basic issues in the broad area of service delivery for the professional social work practitioner. Principles taught are applicable to the arenas of casework, group work, or community organization. Content includes such issues as: the impact of budget and funding streams, accountability, advocacy and action. Personnel matters dealing with the roles of administration and middle-management, principles of supervision, and the roles of para-professional and volunteer staff is considered. Credit, three hours.

441. (Formerly 442) SOCIAL WORK PRACTICE SEMINAR II. Continued exploration of principles and practices of social work practice. Focus on treatment modalities and a critique of newer treatment modalities and their utility for social work practice. The course will be conducted as a block course for a period of three weeks with students attending class three hours daily. Prerequisites: See Curriculum Sheet; open to social work majors only. Credit, three hours.

451. (Formerly 450) FIELD INSTRUCTION II. Continuation of placement in a social work agency for practice experience. Students are exposed to continued in-depth correlation of theory and practice for entry level into the employment field. Agencies selected for use as field placements are those committed to the value of training undergraduate social work students for generalist practice and who have indicated a willingness to structure actively a

number of learning experiences for students. Students are supervised by agency's MSW workers approved by the Social Work Program. The student is responsible for making his own transportation and housing arrangements. Prerequisite: All prior required general education, corequisite and social work courses as defined by the Social Work Program. Credit, six hours.

460. (Formerly 452) SENIOR SEMINAR. This course is designed to provide an integrative experience to the students of course and field material. It explores careers and graduate school systems. Its emphasis is on skill practices for entering into the post graduate market. Credit, three hours.

COOPERATIVE ENGINEERING PROGRAM

Delaware State College is affiliated with the University of Delaware in a versatile Engineering Program. The program is designed to prepare students for professional careers in chemical, civil, electrical, mechanical, and aerospace engineering. Students are also prepared 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. However, 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 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 201-202. A minimum of 155 hours are required for the Bachelor of Science degree in Chemistry and the Bachelor of Chemical Engineering degree.

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, some civil engineers are concerned with air and water quality management, the rational protection of the environment and careful utilization of natural resources. Other civil engineers specialize in ocean engineering; ocean engineers design and build harbors and shoreline structures and develop devices for off-shore oil production. 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 126 total credit hours in engineering and related courses including: Civil Engineering 301, 320, 331, 442, 451, and 482; Engineering 125 and 132; Engineering Mechanics 301, 302, 305, and 306; Biology 321; Computer Science 106; Geology 107; Material Science 302; Statistics 370; Technical Writing E409; and 18 hours of approved technical electives. In addition, a civil engineer must take Chemistry 101-102; Mathematics 221, 222, 223, 301; Physics 201-202, 311-312; 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 66 hours in engineering and related courses distributed as follows: Physics 201-202, 305, 311-312, 316, 323-324, and 401-402; Engineering 125 and 132; Civil Engineering 301, 320, 331, 442, and 482; Engineering Mechanics 301, 302, 305, and 306; Biology 321; Computer Science 106; Geology 107; Material Science 302; Statistics 370; Technical Writing E409; and 18 hours of approved technical electives. In addition, a physics/civil engineering major must take Chemistry 101-102; and Mathematics 221, 222, 223, and 301; and satisfy the general education programs of both institutions.

*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 and sophomore year of residence at the College will be considered to have satisfied the foreign language requirement for the baccalaureate degree in chemistry.

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 129 credit hours include: Electrical Engineering 170, 202, 205, 225, 305, 309, 310, 312, 320, 340, 413, 417, and 433; Engineering 125; Materials and Metallurgy 302; Mechanical Engineering 361; 21 credit hours of approved technical electives and Economics 102. 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 science 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 156-160 hours includes the same required courses as the Electrical Engineering Major shown above.

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 213, 214, 302, 305, 306; Mechanical and Aerospace Engineering 307, 316, 336, 348, 361, 391, 411, 423, 445, 446, 447, 448; Material Science 302; and 12 units of approved technical electives. The additional requirements are Chemistry 101-102; Mathematics 221, 222, 223, and 301; Physics 201-202; 311; 312; 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 will prepare the student for a broader range of technical achievement. The requirements for a major in mathematics/mechanical engineering are the same as those listed for mechanical-aerospace engineering major, above.

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. The 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: same as Mechanical-Aerospace Engineering Major, Phys-

ics 305, 316, 323, 324, 401, 402 and the general education requirements of both institutions must be satisfied.

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

170. INTRODUCTION TO DISCRETE SYSTEMS. An algorithmic, discrete signal approach to electrical systems. Topics include digital signal representation, digital filters, Z transforms, discrete fourier transforms, graphs and flow network applied to electrical systems. Credit, three hours.

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.

225. LOGICAL DESIGN OF DIGITAL CIRCUITS. The logical properties of circuits based on two valued devices; analysis and synthesis of combinational networks, optimization of combinational nets; sequential system organization and optimization; arithmetic algorithms and languages for describing the behavior of automata. Prerequisite: Electrical Engineering 202. Credit, three 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, three 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.

METALLURGY

302. MATERIAL SCIENCE FOR ENGINEERS. Crystal binding and structure; energetics and structure of lattice defects; structures of inorganic and organic polymers; electronic and magnetic properties; elasticity, plasticity, and fracture; phase equilibria and transformations; reactions of structure and treatment to properties. Credit, four 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 Science — 6 hours, and Social Science — 6 hours.

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 department 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 EXECUTIVE SECRETARIAL TECHNOLOGY (450)

CURRICULUM IN EXECUTIVE SECRETARIAL TECHNOLOGY (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

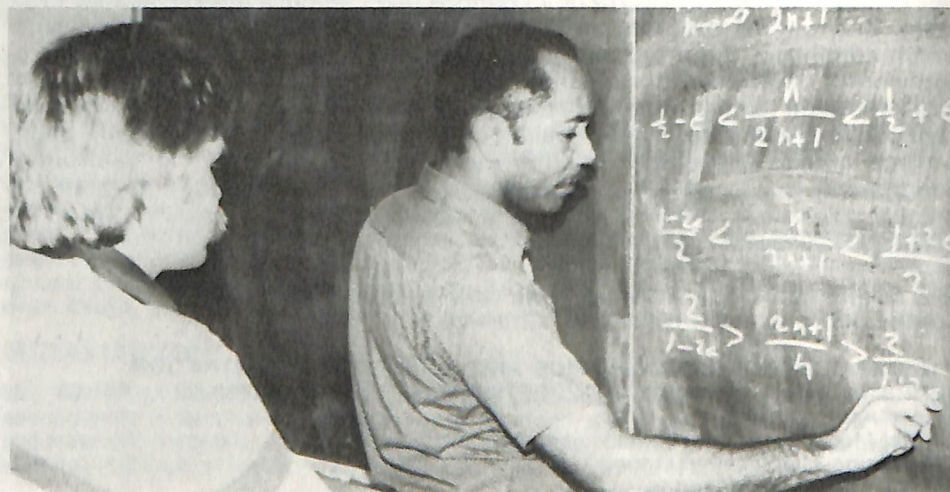
CURRICULUM IN CHEMICAL LABORATORY TECHNOLOGY (240)

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)



SPECIAL PROGRAMS

Child Development Laboratory
Continuing Education Program
Summer School
Summer Engineering Institute
Learning Skills Center
Military Science Program
Internship and Experiential Education Program
Career Development Program
Honors Program
Pre-Law

SPECIAL PROGRAMS

A growing institution of higher education, Delaware State College is committed to serving the growing community surrounding it. Accordingly, college facilities are made available to the citizenry. Thus, Delaware State College has become a focal point for cultural, educational, and social affairs in the Dover area. With the total population in mind, Delaware State College will continue to provide programs that improve the quality of life for everyone.

CHILD DEVELOPMENT LABORATORY The Department of Education operates a pre-kindergarten and kindergarten for three, four and five year old children. The laboratory school is staffed by personnel qualified to provide a cognitively oriented program for young children.

The facility is also used as a laboratory to provide on-site experiences for college students majoring in early childhood education, elementary education, art, home economics, nutrition, nursing, psychology, and other fields of study offered by the College.

A large observation room with one-way mirrors and sound control affords students, parents, and visitors the opportunity to observe and/or study children in each of four rooms used for the program.

CONTINUING EDUCATION PROGRAM: DOVER AND WILMINGTON CAMPUSES The Evening College meets the learning needs of individuals who work during the day and wish to further their education on a part-time or full-time basis.

The College prides itself in meeting the needs of evening college students by offering "guaranteed" credit courses during the First and Second Semesters.

CREDIT COURSES Evening College students can earn the Bachelor of Science Degree by formal matriculation through the Admissions Office. The degree majors are: Accounting, Business Administration, History, and Natural Resources. Students who have received the Associate degree from an accredited program can enroll in a Bachelor of Technology degree program through the Evening College.

OFF-CAMPUS For the convenience of working students, credit courses are offered at off-campus sites throughout the state. These sites include Georgetown, Smyrna, Dover Air Force Base, Delaware City, St. Georges, Glasgow, and Wilmington (1013 Park Place). Most courses offered off-campus assist Delaware teachers in meeting city and state teaching certification requirements. In addition, students may become certified in special education through courses offered in Evening College.

NON-CREDIT COURSES Continuing Education offers non-credit workshops, seminars, and conferences for Delaware professionals including supervisors, secretaries, social-service agency staffs, teachers, law enforcement officers, and community residents requiring training and re-tooling for upward mobility and enrichment activities for leisure time.

OUTREACH: SENIOR CITIZENS, PRISONERS, AND NON-TRADITIONAL LEARNERS Continuing Education strives to eliminate barriers and provide access to education for non-traditional students. Course fees for credit courses are waived for senior citizens who pay only a \$10 registration fee if the course is self-supporting. In addition, the Path to Education for Prisoners (PEP) program delivers courses to the incarcerated at the Delaware Correctional Center in Smyrna.

REENTRY SCHOLARSHIPS FOR OLDER STUDENTS (contingent on available funding) The purpose of Reentry Scholarships is to give recognition and

financial assistance to deserving and mature male and female students, who are Delaware residents, returning to education on a part-time evening basis. Scholarships are awarded according to financial need, scholarship, leadership, and volunteer community services.

SUMMER SCHOOL Summer Sessions are offered for students who wish to accelerate and "catch-up" academically to raise grade point averages. The regular Day Summer Session is six weeks in length. Evening Pre- and Post-Sessions are also scheduled between Day Summer Session and the first week of August. A normal course load is six to nine semester hours. Students enrolled at Delaware State College in the Second Semester who attend Summer School, or attend any other accredited college (with prior approval), will have their Summer School and Second Semester grades computed together to determine grade point averages. Students currently enrolled at other colleges who wish to attend the Summer Session at Delaware State College must present written approval from the Dean or Registrar of their home campus.

Eighteen academic departments offer credit courses which meet General Education requirements for students who are degree-oriented.

SUMMER ENGINEERING INSTITUTE The summer institute is a six-week program organized to encourage and prepare incoming students for the engineering curricula. The program is open to all students who have a career interest in science or engineering. Financial aid is available. The program is designed to strengthen skills in mathematics and physics. Communication skills are also strengthened as a part of the learning process in the physics laboratory. 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 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 Plant (Lecture-Seminar Series)

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, college, 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 Learning Skills Center offers a comprehensive program in the four areas of Reading, Writing, Speech, and Mathematics. The Center has professionally trained faculty and staff members who are available to help students become more independent, self-confident, and efficient learners.

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

The Center offers the following courses which may be used to meet course load requirements, but do not carry credit toward meeting graduation requirements:

READING AND STUDY SKILLS: The Reading course is designed to strengthen students' reading comprehension skills and to develop vocabulary. The Study Skills course covers a variety of topics including time management, effective note-taking, studying for exams, and taking exams.

BASIC MATH: This course includes fractions, decimals, percents, graphs, and equations.

INTRODUCTION TO SPEECH: Emphasis is placed on the process of human communication between two individuals and within a small group context.

THE WRITING LABORATORY: A basic student-development session designed to offer individualized instruction and writing practice to students enrolled in writing skills classes, but the laboratory is open to all students.

MILITARY SCIENCE PROGRAM The College provides a limited voluntary, two-semester program in military service for 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.

INTERNSHIPS AND EXPERIENTIAL EDUCATION PROGRAM Delaware State College sponsors a variety of out-of-class learning experiences, internships and experiential education, for academic credit under the auspices of several academic departments. Career-oriented programs, such as teacher training, nursing, and social work, conform to the standards of the external accrediting agency with which they are associated. Other programs such as the urban affairs, political science, and psychology internship programs, are designed to meet the academic standards of the College and to adhere to the principles for sponsored learning established by the Council for the Advancement of Experiential Learning (CAEL).

In connection with their programs, several departments hold workshops, training sessions and meetings for their affiliates.

Descriptions of off-campus volunteer experiences, off-campus independent study projects arranged by College faculty for Delaware State College students, are filed with the Office of the Vice President for Academic Affairs at their completion. Final evaluations of students may be filed with the Office of Admission and Records in addition to the grade reported by the academic department.

The Office of the Vice President for Academic Affairs is assisted in the monitoring and evaluation of experiential learning programs at Delaware State College by the Council on Career Development and Experiential Learning, an activity of the Advanced Institutional Development Program. Council members include the Director of Career Planning and Placement, the Coordinator of Internships and Experiential Education for the Department of Sociology, Urban Affairs and Social Work, the Director of Teacher Training and representatives of several other departments offering experiential learning programs.

THE CAREER DEVELOPMENT PROGRAM The Career Development Program is coordinated by the departments of Counseling, Career Planning and Placement, the Cultural Improvement Program, and the Internships and Experiential Program of the Department of Sociology, Urban Affairs and Social Work.

The principal objective of the program is to minimize duplication of program services and to maximize student preparation for meaningful careers through the coordination of workshops and programs which accomplish the following: (1) exploration of personal values; (2) exploration of the socio-cultural environment; (3) development of career-related skills and knowledges through off-campus learning experiences; (4) use of the College's special career-related resources to enhance the employability of its graduates; and (5) to present to the College an integrated approach to career exploration and development.

Activities coordinated by the Career Development Program supplement the services routinely provided to the primary student populations of the participating programs.

The Office of the Vice President for Academic Affairs is assisted in monitoring and evaluating the Career Development Program by the Council on Career Development and Experiential Learning, an activity of the Advanced Institutional Development Program. Council members include the Directors of Counseling, Career Planning and Placement, the Coordinator of Internships and Experiential Education for the Departments of Sociology, Urban Affairs and Social Work, the Director of Teacher Training, and representatives of several other departments offering experiential learning programs.

HONORS PROGRAM DIRECTOR: OLIVIA W. WASHINGTON 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 fullest development, and stimulate them to creative and critical thinking.

The program combines three elements: colloquia, seminars and field trips. Colloquia offered recently include: Life Crises-Birth and Adolescence; Old Age and Death; Ascent of Man; A Search for Ethical Values; The Politics of Instability in the Mideast and The Revolution in Leisure.

Students are invited to participate in the Honors Program based on grade point average and/or the recommendation of a faculty member to the Director. Six credits earned in the Honors Colloquia may be used to meet general education requirements in the Humanities and Social Sciences.

HONORS COURSES

511-519. FRESHMAN COLLOQUIA. Interdisciplinary study and disciplinary study and discussion based upon required reading in primary sources. Specific content determined periodically by the Honors Council. Each colloquium has a one two-hour meeting per week for a semester. Credit, two hours each semester.

521-529. SOPHOMORE COLLOQUIA. See Honors 511-519.

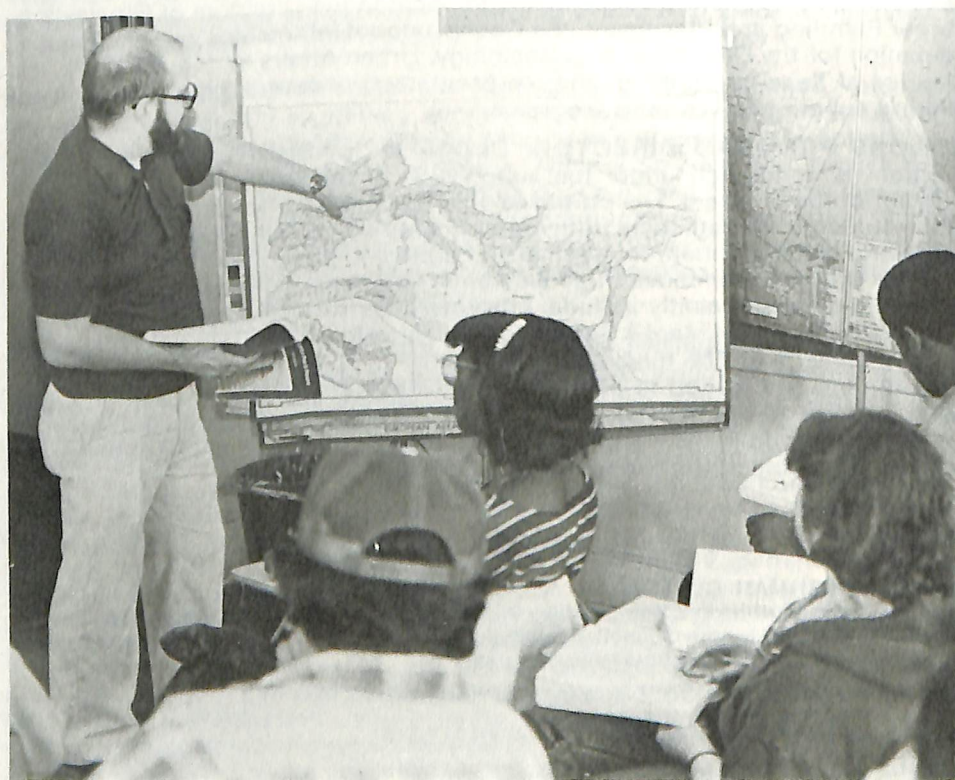
531-539. JUNIOR COLLOQUIA. See Honors 511-519.

541-549. SENIOR COLLOQUIA. See Honors 511-519.

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.

Alpha Chi National Scholastic Honor Society is an outgrowth of the Honors Program.

PRE-LAW Delaware State College provides a counseling program for students interested in law school or paralegal education. The college pre-law advisor is Dr. Joseph H. Spina (Room 209, Conrad Hall). Dr. Spina is a member of the Northeast Association of Pre-Law Advisors and maintains a complete listing of law school bulletins, LSAT booklets and application forms and a small library of reference material dealing with law school admissions. Information is also available on financial aid and scholarships. Students may obtain from Dr. Spina copies of the *Pre-Law Handbook* and the special publication, *Pre-Law at Delaware State College: A Student Information Packet*. A workshop for pre-law students is held during the fall semester with field trips to selected law schools taken in the spring. Dr. Spina will work with students on an individual basis in planning their course curriculum and developing an admissions strategy.



STUDENT LIFE

Career Planning and Placement
Counseling
Student Tutorial Service
Special Services Achievement
Support Program
Upward Bound
Veterans Affairs
Orientation Activities
Advisement
Student Health Services
College Activities
Student Responsibilities

STUDENT LIFE

The student life 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 life 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.

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 vocational counseling for all students.

More than 200 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 900 volumes of occupational literature for use by all students. The Center also encourages students to explore career planning, personal and educational requirements for jobs, and employment trends early in their college lives. This is an attempt to integrate the academic pursuits of students with their career objectives.

The Center also conducts numerous career-planning activities that cover a wide range of career development workshops and seminars.

COUNSELING CENTER

The College Counseling Center offers enrolled students the opportunity to work with trained counselors in order to explore and resolve problems and situations that may tend to impede his/her academic, personal, social, or vocational adjustment.

Individual and group counseling are the basic approaches employed by the counseling staff. Counseling, testing, and other resources exist in order to assist students to select career choices and handle academic concerns. Counseling services are offered in privacy and the information discussed is held in strict confidence. There is no fee for this service.

STUDENT TUTORIAL SERVICE

Under the director 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 adjustments of first and second year students.

SPECIAL SERVICES ACHIEVEMENT SUPPORT PROGRAM

The Special Services Achievement Support Program (SSASP) operates under the auspices of the Counseling Center which operates under the direction of the Office of Student Affairs, located in the Education and Humanities Building. The Special Services Achievement Support Program (SSASP) is a new federally-funded program that began October 19, 1981 at Delaware State College.

The Special Services Program is designed to provide tutoring and motivational support for students who require additional educational support in order to achieve in college. This program utilizes the one-to-one and group tutorial relationship and individual counseling for achieving positive academic results. Academically successful students may also receive assistance in order to increase their success levels. This program is very beneficial to students who require educational and supportive services.

UPWARD BOUND

Funded through the U.S. Office of Education, provides tutoring, counseling, and cultural enrichment programs to Kent and Sussex County, Delaware high school students. Students concentrate on career goals and preparation for post-secondary education. It takes place at the Delaware State College campus throughout the school year and during a six-week summer residential component. For more information and application, call 736-5222.

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.

ORIENTATION ACTIVITIES

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 tests, and to enhance their adjustment as efficient college students.

During this period, upperclassmen serve as orientation aids to freshmen. Personal interviews and group meetings are provided to promote a better understanding between upperclassmen, faculty, staff, and the administration. The Freshman Orientation Week also provides an opportunity for students to meet with their faculty advisors to discuss appropriate courses and interpret curriculum.

The social aspect of student life is also introduced. Discos, movies, rap sessions and game room activities are made available for student participation.

All new freshman and transfer students are expected to participate in the activities of Freshman Orientation Week.

Freshman Orientation (12-101) is a one-credit course which is designed to provide a transition from Freshman Orientation Week to full participation and assimilation into college life.

The counseling center AID program is designed primarily to help reduce the student dropout rate at Delaware State College by concentrating on non-academic factors. Students participate in dormitory workshops on study motivation, attitudes, values, and self awareness. In addition, freshmen students participate in freshman orientation activities throughout their first semester on campus. Also, intensive individual counseling is provided for students who have a high probability of dropping out of college.

ADVISEMENT

Faculty members act as advisors for all students. After official registration, each freshman is assigned an advisor in the department in which he/she has been admitted. If a student later changes the department to which he/she has been admitted, a different advisor is assigned 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 HEALTH SERVICE

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 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 Service, 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 the following conditions:

1. A 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 Vice President of Student Affairs, and a note must be obtained from that office in order to be treated at the Health Service.

GENERAL INFORMATION

1. **CONFIDENTIALITY.** Under no circumstances will any medical information be divulged to any person whatsoever—parents, friends, university authorities, etc.—without your written permission except in the following cases: (1) emergencies, (2) parents of a student under 18 years of age, and (3) certain communicable diseases are, as required by law, reported to Public Health Officials.
2. The College Health Service does not perform special physical examinations such as pre-entrance, fraternity and sorority. Routine physical examinations are required and give to (1) student teachers with a pre-entrance health form on file and (2) athletes. (By appointment only.) No member of an athletic team may participate in any sport without clearance by the Student Health Service.
3. **EMERGENCIES.** In case of a medical emergency in the residence hall (i.e., convulsions), ALL STUDENTS ARE TO REPORT TO THEIR ROOMS IMMEDIATELY. The student's roommate, friend or another person should notify the Residence Hall Director who will get a Security Officer to transport the student to Health Service. If the Residence Hall Director is not available, the student's

roommate or another person should call Security and inform the Residence Hall Director as soon as possible. Students are not to call an ambulance or the ill student's parents in an emergency, unless requested.

If an emergency (i.e., convulsions) occurs elsewhere on campus, notify Security and Security will notify Student Health Center.

4. All referral services, consultants, laboratories, X-rays, hospital emergency room services, clinics, etc., are made through the Student Health Service.
5. The College insurance program can only be utilized through the Student Health Service by full-time students. Students who carry other insurance should carry a copy of the card with them at all times.
6. Notify Health Service of any change of name or address.

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. There is one nurse on duty at all times. The objective of this staff is to provide the best in medical services to the student body.

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

STUDENT HEALTH SERVICE HOURS

1. Regular session—24 hours per day, seven days per week. Closed for meal hours: Lunch 12:30 p.m.-1:30 p.m., Dinner 7:00 p.m.-8:00 p.m.
2. Summer session—8:30 a.m.-4:30 p.m., Monday through Friday. Closed for lunch hours 12:30 p.m.-1:30 p.m.

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.

CULTURAL IMPROVEMENT PROGRAM

The Cultural Improvement Program sponsored under the auspices of the Advanced Institutional Development Program (A.I.D.P.) is dedicated to the task of providing a comprehensive program of cultural awareness and other non-academic experiences for all resident students. In addition, the program attempts to institute and increase program activities in the residence halls.

The Cultural Improvement Program offers a variety of activities in the residence halls, works with student organizations to co-sponsor programs and offers program training sessions.

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.

INTERCOLLEGIATE 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.

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.

A list of updated organizations and activities at Delaware State College may be obtained from the Office of Student Affairs, Education and Humanities Building, Room 100, or may be found in the latest edition of the Student Handbook. The various campus-based student organizations include the following categories: Student Government, Student Publications, Class, Departmental, Academic, Honor Societies, Professional Societies, Religious, Social and Greek.

STUDENT GOVERNMENT (SGA) The self-governing body of all students provides leadership in student affairs, supervises 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:

Men's Council The governing body within the residence halls.

Women's 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 —	Los Conquistadores
Student Affiliate	Mathematics Club
Biology Club	Music Club

Business Club	National Student Education
Distributive Education Club	Association
Fine Arts Club	Nursing Club
Health and Physical Education Club	Psychology Club
History and Political Science Club	Sociology Club
Home Economics Club	VICA (Vocational Industrial Clubs
	of America)

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

Alpha Kappa Mu	Kappa Delta Pi
Delta Mu Delta	Alpha Chi
Epsilon Delta Epsilon	Pi Mu Epsilon
Phi Alpha Theta	Psi Chi

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 included: 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
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	Iota Phi Theta
Beta Phi Burgundy	Swing Phi Swing
Crescent Club	Vogue
Gamma Phi Groove Social Club	Wine Psi Phi

SPECIAL INTEREST GROUPS Promote interests in various types of activities.

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

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 assist in the maintenance and the 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 in 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 I.D. 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 I.D. 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 I.D. card should be reported promptly to the Dean of Student Affairs so that a new card may be prepared for a minimum fee.

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.

RESIDENCE LIFE

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 develop-

ing 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 Student Housing. Rooms are furnished by the College with beds, study desks and chairs. 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 rooms. Damage done to a room or its furnishings through carelessness or neglect is charged to the occupants.

FACILITIES

LYDIA P. LAWS HALL. A residence hall for women.

HARRIET TUBMAN HALL. A residence hall for women.

META V. JENKINS HALL. A residence hall for women.

SAMUEL L. CONWELL HALL. A residence hall for men.

MEDGAR EVERS HALL. A residence hall for men.

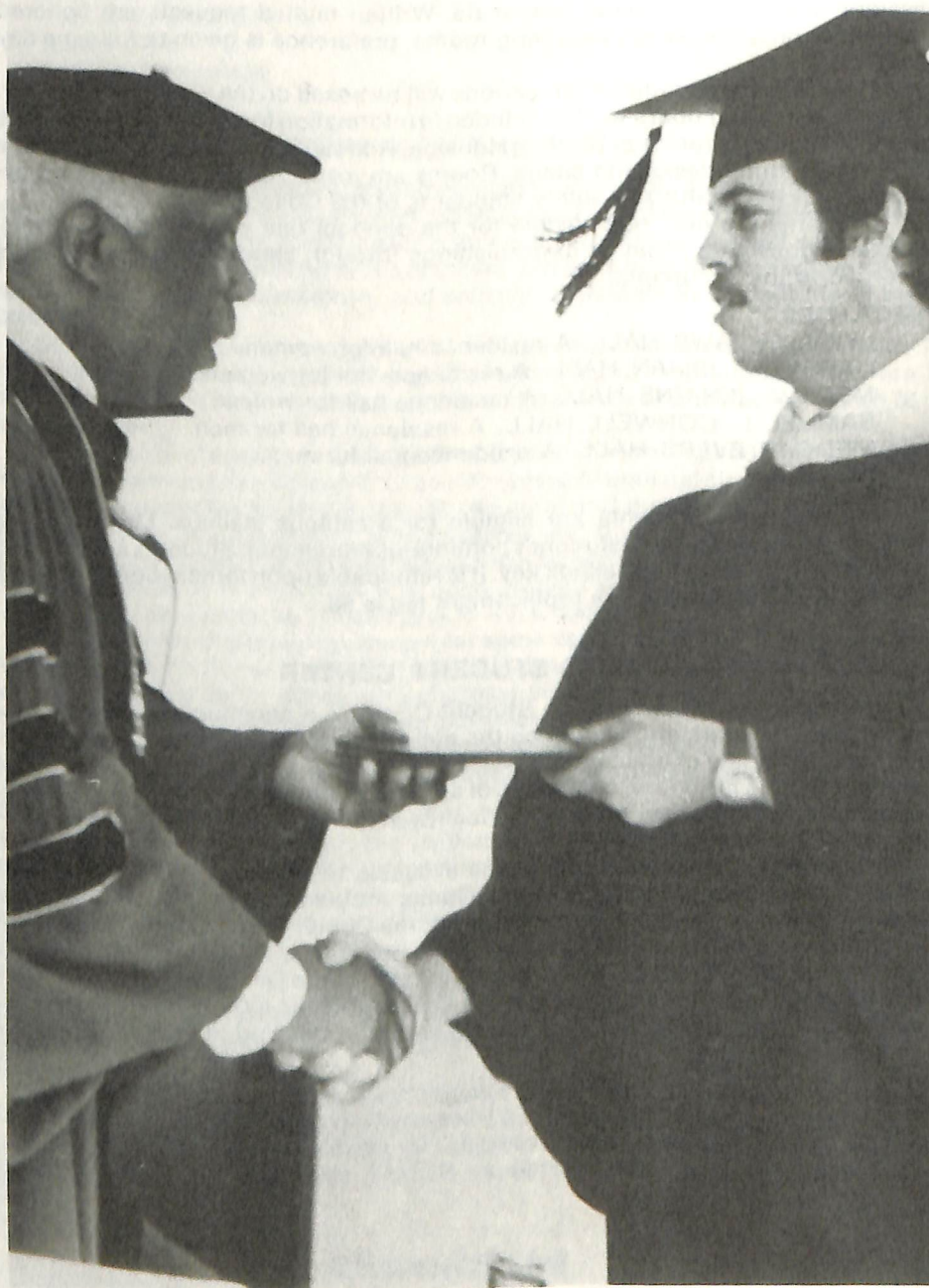
MAIL

All residence students are eligible for a campus mailbox. Mailboxes are issued only once during a student's continuous enrollment. Students are required to make a deposit on the mailbox key. It is refundable upon termination of resident status. If the key is lost, the replacement fee is \$6.

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 students 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 Gameroom which provides table games and facilities for billiards and bowling, a Post Office and a College Bookstore.



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**Board of Trustees
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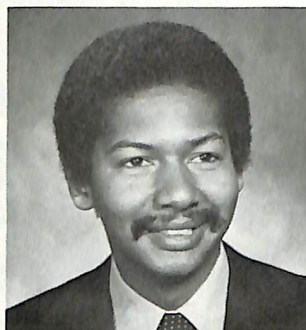
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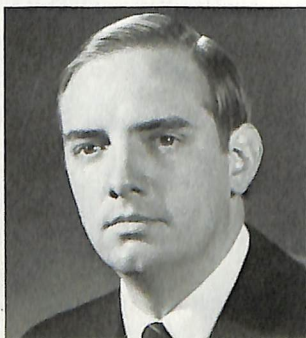
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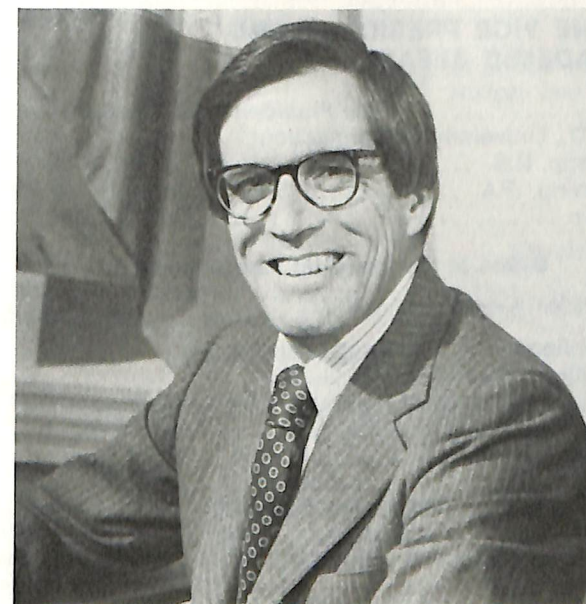


Rev. James H. Williams

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 Margaret Y. Houchin *Librarian I*
 Gertrude W. Jackson *Librarian I*
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Sandra Dyer	Library Assistant
Stephen Jarrell	Library Assistant
Shirley Konecny	Library Technical Assistant
Helen Walker	Library Technical Assistant
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Cherrita Gibbs	Library Clerical Technician
Carol Gillette	Library Clerical Technician
Brenda Tilghman	Library Clerical Technician
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Dr. Elise Brathwaite	Speech Coordinator
Constance Irving	Coordinator of Mathematics
Robert Stringer	Coordinator of Writing
Debra Catts	Instructor
Pritpal Grewall	Instructor
Susan Iovino	Instructor
Dam Nguyen	Instructor
Deborah Williams	Instructor

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B.S., Alabama A & M University	
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Wayne Moore	Computer Operator III
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Rita Smith	In-Put Technician

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Val J. Credighton, B.S.	Admissions Recruiter
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Geraldine Burbage	Clerk Typist/Secretary

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Wilberta Lewis	Secretary

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Phyllis Moses	Secretary

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B.S., Elizabeth City State University	and Coordinator of Non-Professional Staff
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Laurel P. Powell	Assistant Resident Manager, Laws Hall
Veronica Givens, B.A.	Resident Manager, Tubman Hall
Annie Blue	Assistant Resident Manager, Tubman Hall
Jackie Robinson, B.S.	Assistant Resident Manager, Tubman Hall
Gladys L. Elliot	Resident Manager, Jenkins Hall
Alice Brown	Assistant Resident Manager, Jenkins Hall

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Byarie Jones, B.S.	Assistant Resident Manager, Conwell Hall
Ronald Miller	Resident Manager, Evers Hall
Jeff Daniels, B.S., B.A.	Assistant Resident Manager, Evers Hall
Harry Moses, B.S.	Assistant Resident Manager, Evers Hall

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 Carol Larsen *Sports Information Secretary*
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 Greg McLaurin, B.S. *Assistant Football Coach*
 Ajac Triplett, B.S., M.S. *Head Basketball Coach*
 Raymond Burke, B.S. *Assistant Basketball, Head Cross Country*
 Marianna Freeman, B.S., M.S. *Head Women's Basketball Coach*
 James Williams, B.A., M.A. *Head Baseball Coach*
 Joe Burden, B.S., M.A. *Head Men's Track Coach*
 Walter Tullis, B.S. *Head Women's Track, Assistant Football*
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 B.S., Florida A & M University

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 B.S., A & T State University
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 Dorothy Durham *Postal Supervisor*
 Lionel Sims *Games Room Assistant*
 Jessie Taylor *Night Manager, King Student Center*
 Kermethia A. Stokes *Secretary, King Student Center*
 Doris Hicks *Postal Clerk*

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 Estelle Morris, R.N. *Nurse*

Part-Time

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 Margaret Thompson, R.N. *Nurse*
 Peggy Holloway, R.N. *Nurse*
 Frances Norman, R.N. *Nurse*
 Jackie Reid, R.N. *Nurse*
 Carlita Rodriguez, R.N. *Nurse*
 Flora Spriggs, R.N. *Nurse*
 Elizabeth Twitchell, R.N. *Nurse*

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 Mrs. Phyllis Marvel *Nursing*
 Mrs. Carol Adkins *Sociology, Urban Affairs and Social Work*
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 Leory Sage *Director of Custodial Services*
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 B.S., Savannah State College
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 Cynthia Loper *Clerk Typist*

Security

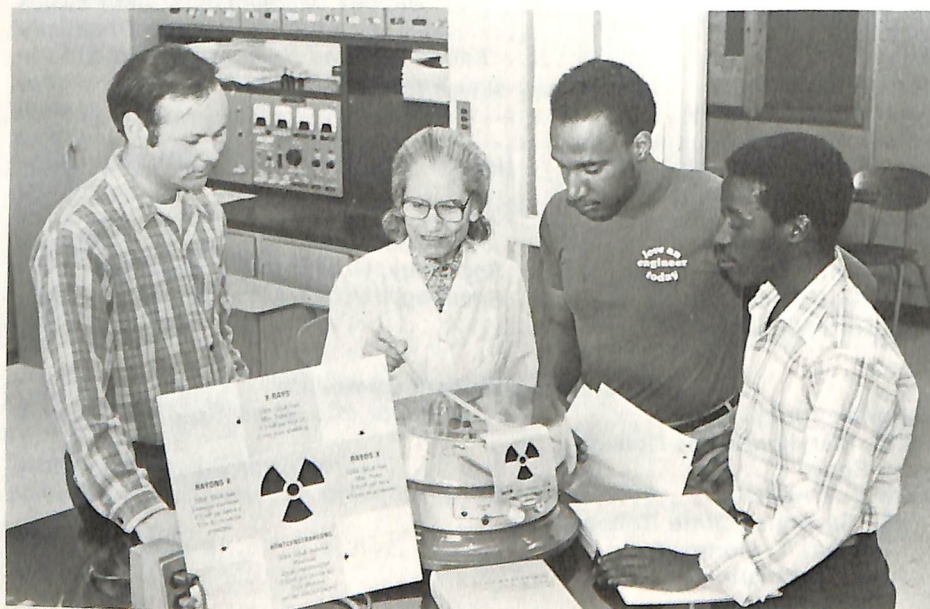
Clifton Coleman *Director of Safety and Security*
 B.S., University of Delaware
 Ruffin Cadot *Assistant Director of Safety and Security*
 Hayward Dredde *Shift Commander*
 Lemuel Taylor *Shift Commander*
 Gordon Woodlin *Shift Commander*
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 Mildred Hall *Sales Clerk*

Food Services

ARA Food Services Co. *Contractor*



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 Chairwoman, Department of Art
 and Art Education
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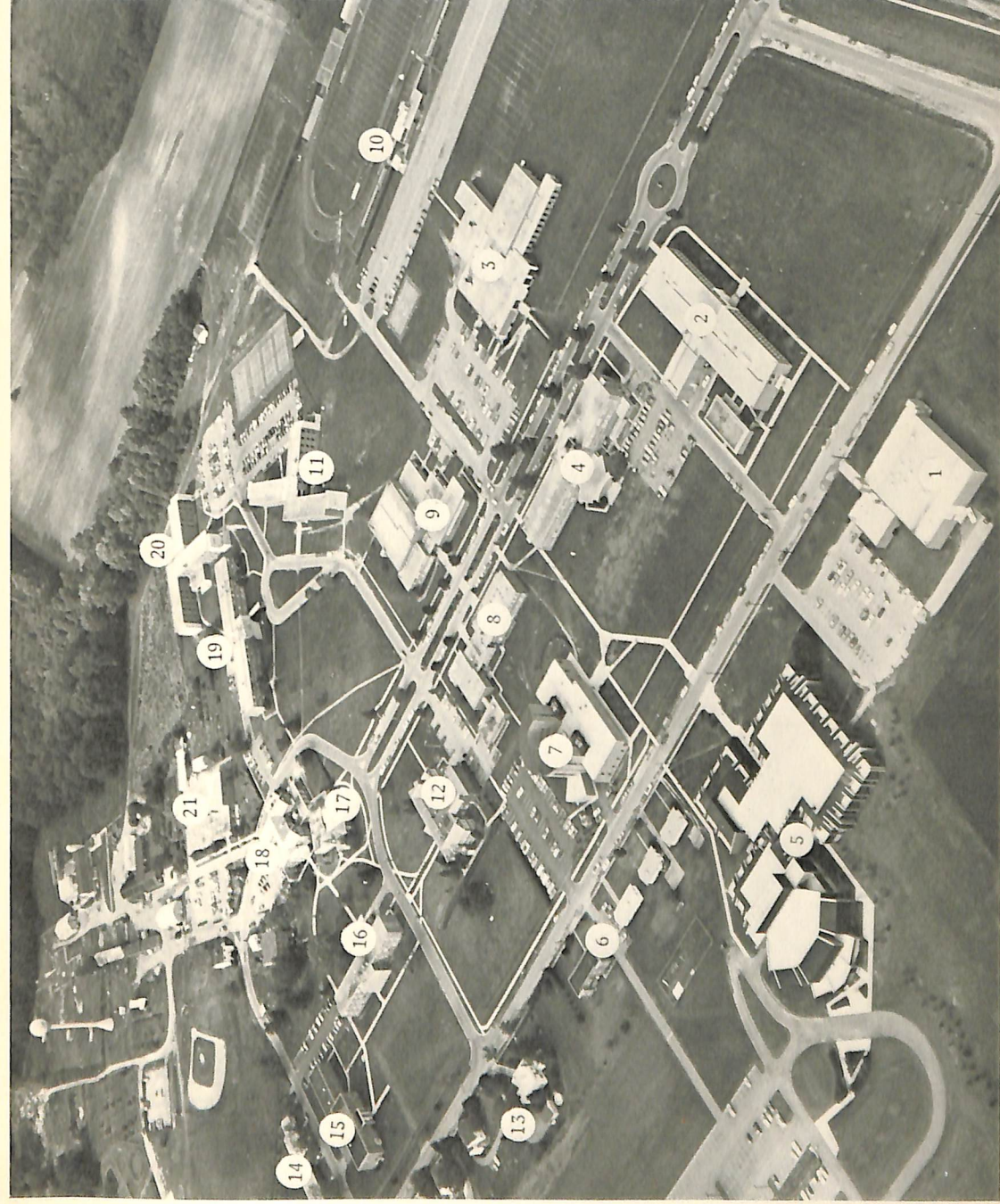
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2. Business Administration and Home Economics Building
3. Martin Luther King Student Center
4. Science Center
5. Education and Humanities Center
6. Faculty Housing
7. William C. Jason Library/Learning Center
8. Grossley Hall
9. Memorial Hall
10. Alumni Field
11. Medgar Evers Hall
12. Delaware Hall
13. President's House
14. Student Health Center
15. Tubman Hall
16. Laws Hall
17. Maurice Thomasson Building/Center for Continuing Education
18. Conrad Hall
19. Samuel T. Conwell Hall
20. Meta V. Jenkins Hall
21. Agriculture and Natural Resources Center



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