CORRESPONDENCE

Inquiries are encouraged from all qualified secondary school and transfer students. Trenton State College makes no distinction regarding race, color, creed or national origin in considering applications for admission. Primary consideration is given to the candidate's ability to successfully complete, and to benefit from the program for which he is applying.

Inquiries concerning admission should be addressed to the Director of Admissions.

Inquiries concerning scholarships, loans, and employment should be addressed to the Division of Student Personnel Services.

COLLEGE OFFICE HOURS

The offices of the College are open Monday through Friday from 8:30 A.M. to 4:30 P.M. Telephone (609) 771-1855.
## Fall Semester, 1971

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>9-15</td>
<td></td>
<td>Registration</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>Thursday</td>
<td>Classes begin, 8:00 a.m.</td>
</tr>
<tr>
<td>November</td>
<td>24</td>
<td>Wednesday</td>
<td>Thanksgiving recess begins at close of college day</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>Monday</td>
<td>Classes resume, 8:00 a.m.</td>
</tr>
<tr>
<td>December</td>
<td>18</td>
<td>Saturday</td>
<td>Christmas recess begins at close of college day</td>
</tr>
<tr>
<td>January</td>
<td>3</td>
<td>Monday</td>
<td>Classes resume, 8:00 a.m.</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Saturday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td></td>
<td>17-22</td>
<td></td>
<td>Examinations</td>
</tr>
</tbody>
</table>

## Spring Semester, 1972

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>27-Feb. 2</td>
<td></td>
<td>Registration</td>
</tr>
<tr>
<td>February</td>
<td>3</td>
<td>Thursday</td>
<td>Classes begin, 8:00 a.m.</td>
</tr>
<tr>
<td>March</td>
<td>25</td>
<td>Saturday</td>
<td>Spring recess begins at close of college day</td>
</tr>
<tr>
<td>April</td>
<td>4</td>
<td>Tuesday</td>
<td>Classes resume, 8:00 a.m.</td>
</tr>
<tr>
<td>May</td>
<td>24</td>
<td>Wednesday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>May</td>
<td>26 - June 2</td>
<td></td>
<td>Examinations</td>
</tr>
</tbody>
</table>
Trenton State College was established as the New Jersey State Normal and Model School by legislative act in 1855. It was the ninth normal school to be founded in the United States. Originally designed to prepare students for elementary school teaching, the College adopted a program in 1925 that included the training of secondary school teachers, and in 1926 the first Bachelor of Science degree was awarded. By 1930 increased enrollment necessitated larger facilities, and in 1936 the College’s move from the city of Trenton to its present 200-acre location in the Hillwood Lakes section of Ewing Township was completed. In 1937 the name of the College was changed from State Teachers College and Normal School at Trenton to New Jersey State Teachers College at Trenton. It later became Trenton State Teachers College and in 1958, in anticipation of broader curricula in arts, sciences and professional studies, it assumed its present name, Trenton State College. Graduate studies leading to advanced degrees started in 1951, and after a reorganization of the undergraduate curriculum, the College conferred its first Bachelor of Arts degree in 1960.

The College is experiencing rapid growth, and will have a full-time undergraduate enrollment of 5,200 when it begins its 117th year in September. With the completion of a new dormitory, the Travers-Wolfe Towers, in the Fall of 1971, approximately 2,300 students will be living in campus residence halls. The College now enrolls more than 6,000 part-time students in undergraduate and graduate courses on campus and at 21 off-campus centers. In September, 1971, the College will have 410 faculty members involved in teaching, research and community service, in addition to administrators, librarians and student services personnel.

The College offers a broad and balanced educational program. In classroom and laboratory the student is helped to confront the cultural and scientific problems of his age. His emotional and intellectual growth are nourished toward the ability to make mature, independent judgments. The College, through research and constant dialogue, seeks to encourage a spirit of inquiry and to enlarge and deepen the student’s understanding and knowledge. It attempts to guide him in his search for individual fulfillment, to create an awareness of his own tradition, and to help him recognize his role as a responsible and contributing member of society.

Trenton State College is accredited by the National Council for Accreditation of Teacher Education, the Middle States Association of Colleges and Secondary Schools, and the New Jersey Board of Higher Education, and holds membership in many national education associations. The College is a public institution under the New Jersey State Government. The authority of its Trustees is subject to the general policies, guidelines and procedures of the Board of Higher Education.
Candidates seeking admission to the full-time undergraduate program at the College apply as freshmen, as freshmen with advanced standing, or as transfer students for either September or February.

Requests for admission in these categories should be addressed to Director of Admissions, Trenton State College, Trenton, New Jersey 08625, who will supply full details of requirements.

Steps to Admission

1. Determine the proper category for application. Candidates for admission to the full-time undergraduate program are classified as:
   a. Freshmen — High school seniors, graduates or the equivalent, who have not attended college previously.
   b. Freshmen With Advanced Standing — High school graduates or the equivalent who have attended college, and who at the expected time of enrollment will have final grades in eleven or fewer semester hours.*
   c. Transfer Students — Students who have attended college and have or will have at the expected time of enrollment final grades in twelve or more semester hours.*

* An applicant is not permitted to disregard any part of his college record and apply solely on the basis of his high school record.

2. Observe all deadlines for receipt of credentials by the College.
CURRICULA
9 basic college preparatory units required for each. 1
4 units English
2 units Social Studies
2 units Mathematics
1 units Lab Science

5 additional college preparatory units. Specified prerequisites noted opposite certain curricula 1

Code No.
07 BUSINESS ADMINISTRATION
75 CRIMINAL JUSTICE

LIBERAL ARTS
20 Undeclared major
21 Art
31 Biology
33 Chemistry
23 English
47 Geography
25 History
27 Mathematics
39 Music
35 Physics
37 Political Science
29 Psychology
49 Sociology
41 Speech Communication and Theatre
43 Speech Pathology & Audiology
60 NURSING

TECHNOLOGY
64 Electronic
65 Industrial
66 Mechanical

TEACHING FIELDS
22 Art Education
32 Biology
06 Business Education
34 Chemistry

11 Developmentally Handicapped
08 Distributive Education
02 Early Childhood
01 Elementary
24 English
46 Geography
15 Health Education
14 Health and Physical Education
12 Hearing Impaired
26 History
16 Industrial Arts
28 Mathematics
40 Music
36 Physics

Biology & Chemistry required

4 units Mathematics and Science preferred

4 units Mathematics and Science preferred

Biology & Chemistry required

Second unit in Science required, Chemistry preferred

4 units Mathematics preferred

4 units Mathematics and Science preferred
Instructions for Freshman Admission

Freshmen are admitted to the College in September and February. Applicants are required to present the following credentials:

1. An official transcript showing graduation or anticipated graduation from an approved secondary school, courses completed or in progress, and rank in class; or a high school equivalency certificate.

2. Freshmen applicants are expected to present a minimum of 16 units as illustrated in the preceding chart. Beginning with the first column, nine units are prescribed in specific areas. The second column shows the five college preparatory units in other areas as they differ for certain curricula. To these add two units from any area regardless of whether or not it is college preparatory. This will total the sixteen units.

The Board of Higher Education has encouraged flexibility in administering these admissions standards and has accordingly established the following exceptions for:

a. Students subject to cultural, educational or economic deprivation. This exception applies only to those students who are to be admitted to programs designed to provide supplementary work in basic skills or otherwise facilitate the adjustment of such individuals to college work. (The college will designate classes to permit this exception.)

b. Veterans who wish to resume their education.

3. A recommendation from an authorized high school official attesting to the character and qualifications of the student to undertake college work is required.

4. An official report from the College Entrance Examination Board in Princeton, New Jersey, showing results of the Scholastic Aptitude Test, is required of applicants. The results of the November or December examinations are preferred, but results of the January examination may be accepted if the College is named on the original registration form. Use our College Board #2519 on the application for the S.A.T. The Achievement tests are NOT requested.
5. The applicant will provide his social security number on his application.

6. A non-refundable application fee of $10.00. This should be in the form of a check or money order payable to Trenton State College. Students for whom this fee represents an undue financial burden, should contact their guidance counselor, who will obtain the necessary waiver form from the College.

7. If specifically requested by the College, the applicant shall appear for an interview.

8. Prospective students must be free of any disease or physical condition, including speech problems, which would prevent the completion of college work. Each applicant must have had a negative chest X-ray or Mantoux test within six months of the application date, and must be vaccinated against smallpox before entering college. The family physician, on a form supplied by the College, will testify to the student’s health and physical fitness. Any condition requiring special arrangements in college facilities must be noted on the application.
C.H.A.N.C.E. Program

The college each year admits a limited number of students, who for various reasons (1) have not performed well during their formal schooling but have the potential to do so, and (2) have substantial financial need. Applicants who feel they meet these criteria may be interested in our Project C.H.A.N.C.E. (Counseling Help And New College Experience). This program is funded by the New Jersey Economic Opportunity Fund. Candidates in competition for these places are not judged solely on their past school record and College Board scores, but more so on present motivation and future potential.

A candidate's family must, when requested to do so, file a Parent's Confidential Statement with the College Scholarship Service. The candidate must have a personal interview arranged for by the C.H.A.N.C.E. office.

For further information and application forms write:
Director, Project C.H.A.N.C.E.
Trenton State College
Trenton, N.J. 08625

FRESHMAN ADMISSION PLANS

The College has in effect two plans for seeking freshman admission:

1. Early Decision — An early decision applicant is expected to apply only to Trenton State College and agrees not to initiate any additional application unless and until he is informed that his application has been rejected. (Those not offered admission will be continued as regular candidates.) See the Calendar of Important Dates for application and deposit deadlines.

2. Regular Decision — Rolling admission will permit the College to make a decision at any time after it has received all supporting data. Supporting data include the application, transcript, S.A.T. scores and interview or audition, if required. See application deadlines and deposit dates below.

SCHEDULE OF DEADLINES FOR FRESHMEN

<table>
<thead>
<tr>
<th>Receipt of Application</th>
<th>Early Decision November 1</th>
<th>Regular Decision November 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receipt of Supporting Documents (transcripts, test scores)</td>
<td>November 10</td>
<td>November 10</td>
</tr>
<tr>
<td>Issuance of decision by College no later than</td>
<td>December 1</td>
<td>November 20</td>
</tr>
<tr>
<td>Receipt of non-refundable fee as requested</td>
<td></td>
<td>December 5</td>
</tr>
</tbody>
</table>

* May be waived for servicemen.

Students admitted to the College will find curriculum patterns existing for a variety of majors in the teaching and liberal arts fields as well as the baccalaureate degree program in nursing, criminal justice and technology. Detailed outlines of these programs are available in this College catalogue and should be studied carefully. As students gain additional experience at the College, they may wish to evaluate the continued appropriateness of their first choice.
Applicants will pay the required non-refundable deposit of $35.00 within a period specified in the offer of admission. It will be applied against the student service fee at registration and will reserve the student's place in his class.

Special Requirements

Applicants for either of the ART majors will, upon request, be required to be interviewed and present a portfolio of their work for evaluation.

Applicants for BUSINESS EDUCATION and INDUSTRIAL ARTS must satisfy the College that they have proper preparation for work in these fields.

Applicants for the HEALTH AND PHYSICAL EDUCATION curriculum, who meet the general requirements for admission to the College, may be invited for interviews with one or more members of the Health and Physical Education faculty. Applicants must pass physical performance tests unless excused by the department for special reasons.

Applicants for the MUSIC curriculum must take special proficiency tests on dates when auditions and interviews are scheduled. Appropriate information on written and oral tests and lists of audition selections are provided by the Department of Music.

INSTRUCTIONS FOR TRANSFER ADMISSION

Transfer students are admitted in both September and February. First semester freshmen currently enrolled in another college are not eligible for consideration for February admission.

Transfer students are classified in the three following categories:
1. Students who have successfully completed Trenton State College's "24 Hour Program" offered by the Division of Continuing Education.
2. Students who are graduates of two-year colleges in New Jersey.
3. All other students who apply under open competition.

Students planning to graduate from a two-year college in New Jersey should consult with their transfer counselor early in their final year at their college for special instructions.
SCHEDULE OF DEADLINES FOR TRANSFER CANDIDATES*

<table>
<thead>
<tr>
<th>Date for which admission is sought</th>
<th>TSC 24 Hour Program</th>
<th>N.J. two-year College JUne Transfer Graduates</th>
<th>All Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receipt of Application</td>
<td>Oct. 1</td>
<td>Feb. 1</td>
<td>Nov. 1</td>
</tr>
<tr>
<td>Receipt of Supporting Documents</td>
<td>Nov. 15</td>
<td>Mar. 1</td>
<td>Nov. 1</td>
</tr>
<tr>
<td>Decisions will be issued on rolling basis to date specified</td>
<td>Dec. 1</td>
<td>April 15</td>
<td>Dec. 1</td>
</tr>
<tr>
<td>Receipt of non-refundable fee</td>
<td>14 days from date of issue of evaluation</td>
<td>May 1</td>
<td>14 days from date of issue of evaluation</td>
</tr>
</tbody>
</table>

*It is necessary that those applicants in the T.S.C. 24 hour program and those who plan to graduate in June from a transfer program at a two year college in New Jersey meet the deadlines specified to be assured priority.

Transfer credit will not be allowed for work with letter grades below “C” or the equivalent.

Transfer Students

A student interested in transferring to Trenton State College should:

1. be in good standing at the college or university from which he wishes to transfer.
2. have no record of discipline or health problems.
3. have maintained a cumulative grade point average of at least 2.0 or “C” from all colleges attended. (The cumulative grade point average at which one may expect favorable consideration for transfer varies with the number of candidates for the available openings.)
4. demonstrate satisfactory performance on transfer entrance examinations when necessary. This request is made of candidates whose transcripts at the time of evaluation show final grades for less than 24 semester hour credits, and it may be put to others.
5. complete at least 32 semester hours of academic credit at this institution to be eligible for a degree from Trenton State College. The last 24 semester hours of the 32 must be taken consecutively at this institution.
6. understand that the approval of the department chairman may be required before junior and senior level major courses are accepted in transfer.
7. understand that not more than 50 per cent of the College requirements may be completed at a two year college.

Students who wish to transfer are asked to:

1. file an application with the Director of Admissions and enclose a check or money order for $10.00.
2. arrange to have transcripts of all previous academic records sent to the College.
3. arrange to take the transfer entrance examinations, if required.
4. arrange for personal interview if requested by the College.
5. observe the preceding Schedule of Deadline Dates for Transfer Candidates.

Evaluation of transcripts will be made only in the cases of applicants who have been offered admission. Curriculum outlines on pages 35 to 172 are suggested as guides for transfer students in planning their academic program. Questions regarding the evaluation of transfer credits should be referred to the Office of Academic Advisement and Evaluation.

Special Note to Students Contemplating Transfer From the Division of Continuing Education

Students in the Division of Continuing Education who plan to apply for transfer into the day school program as Elementary, Early Childhood or Special Education majors should consult their counselors for advice on requirements.

24 HOUR PROGRAM

Matriculated students in the 24-hour freshman program offered by the Division of Continuing Education can expect to be favorably considered for transfer into the day school program, subject to budgetary considerations. (This does NOT apply to students who have transferred to the Division of Continuing Education from another college or who have done additional work at any other college at any time.)

TRANSFER OF CREDIT FROM NON-ACCREDITED INSTITUTIONS

Trenton State College expresses a willingness to accept credit by transfer in the following ways either from newly established institutions which have not yet had an opportunity to obtain full accreditation or from non-accredited institutions which have been in existence for some period of time.

1. Courses taken at a newly established collegiate institution will be accepted in transfer if the institution meets the following standards:
   A. It has been approved as a collegiate institution by its respective state department of higher education.
   B. It is in the process of seeking accreditation (as a candidate or correspondent) under the program of the Commission of Institutions of Higher Education of the appropriate regional association of colleges and secondary schools.

2. Subject to existing policies, courses taken at established non-accredited collegiate institutions will be accepted in transfer on the following basis. The student must achieve on the College Level Examination Program General Examinations an average of 500 or more on each of the five test scores (a sum on the entire battery of at least 2500) with no score under 400 on any one of the five tests. Only if a student demonstrates this level of achievement will the applicable credits recorded on his transcript be considered.
Credit by examination will be granted for a standard score of 50 in the College Level Examination Program Subject Examination appropriate to any of our current courses. The current examinations considered inappropriate are College Algebra, College Algebra and Trigonometry, Computers and Data Processing, and History of American Education. No college credit is given for College Level Examination Program General Examinations except as they validate courses from non-accredited institutions (see 2 above). See also p. 21 Advanced Placement (credit by examination).
TUITION, FEES AND FINANCIAL AID

Charges

All financial responsibilities must be met by students before they register for classes.

Bills are due in full, but, if a student finds it impossible to make full payment, he may arrange for a standardized deferment by applying to the Business Office.

All checks should be made payable to TRENTON STATE COLLEGE. They must be mailed to the Business Office, Trenton State College, Trenton, New Jersey 08625.

<table>
<thead>
<tr>
<th></th>
<th>Residents</th>
<th>Commuting Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition, N.J. Residents</td>
<td>$350.00</td>
<td>$350.00</td>
</tr>
<tr>
<td>($175.00 per semester)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition, Out-of-State Residents</td>
<td>700.00</td>
<td>700.00</td>
</tr>
<tr>
<td>($350.00 per semester)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registration Fee</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td>($2.00 per semester) non-refundable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Service Fee</td>
<td>35.00</td>
<td>35.00</td>
</tr>
<tr>
<td>($17.50 per semester) non-refundable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Activities Fee</td>
<td>55.00</td>
<td>55.00</td>
</tr>
<tr>
<td>(This fee is collected with other charges but is a student voted fee and is turned over to the Student Cooperative Association.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Health and Accident Insurance (12 months)</td>
<td>22.50</td>
<td>22.50</td>
</tr>
<tr>
<td>Room and Meals</td>
<td>1,100.00</td>
<td>—</td>
</tr>
<tr>
<td>Total N.J. Residents*</td>
<td>$1,566.50</td>
<td>$466.50</td>
</tr>
<tr>
<td>Total, Out-of-State Residents*</td>
<td>$1,916.50</td>
<td>$816.50</td>
</tr>
</tbody>
</table>

*The above charges are subject to change at any time by the State Board of Higher Education.

These totals do not include books, athletic equipment and special charges of certain professional programs. There is a fee charged to students engaged in student teaching. Information is available from advisors and departments.
Refunds

In computing refunds, the date of withdrawal is the date on which the Registrar receives a written notice from the student, his parents, or his guardian. If notice is received after withdrawal, refunds cannot be made retroactive to the date of leaving.

Payment of refunds for room, board, and tuition cannot be made until a student returns his I.D. card and his meal ticket to the Admissions Office (freshmen) or to the Student Personnel Office (upperclassmen).

Following is a schedule of refunds for tuition, student service fee and student activities fee based on the date that official notice is given to the College:

<table>
<thead>
<tr>
<th>Withdrawal Time</th>
<th>1st Sem.</th>
<th>2nd Sem.</th>
<th>Tuition</th>
<th>Student Service Fee</th>
<th>Student Activities Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before semester begins:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During first third of semester:</td>
<td>Before:</td>
<td>9/16/71</td>
<td>2/3/72</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Between:</td>
<td>9/16 &amp;</td>
<td>2/3 &amp;</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10/24/71</td>
<td>3/12/72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between first third and first half of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>semester:</td>
<td>Between:</td>
<td>10/25 &amp;</td>
<td>3/13 &amp;</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11/6/71</td>
<td>3/25/72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>During last half of semester:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>From:</td>
<td>11/7/71</td>
<td>3/26/72</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>to end</td>
<td>to end</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The refund policy as it applies to the Student Teaching Fee is as follows:

Withdrawal before student teaching begins: 100%
Withdrawal during first third of student teaching: 60%
Withdrawal between first third and first half of student teaching: 30%
Withdrawal during last half of student teaching: No refund

Refunds for Room and Board

Refunds of meal charges during absence for illness will be allowed after one week, provided the meal ticket has been returned to the Housing Office. Room rent is refunded only when a student withdraws from campus housing for reasons of illness or exceptional conditions as determined by the Coordinator of Residence Programs and the Coordinator of Student Housing. Room rent is forfeited for the remainder of the quarter in which the student withdraws if reasons are other than those specified above.

Students in professional education programs should consult their advisors for information on refunds having to do with student teaching.
STUDENT FINANCIAL ASSISTANCE

Financial Aid

A student must be accepted for admissions before he is eligible to apply for financial aid. Applicants must complete the Parents Confidential Statement of the College Scholarship Service and the College application which can be obtained from the Division of Student Personnel Service.

A number of scholarships and prizes are awarded annually. Deadline for all applications for financial aid is April 1. The following types of financial aid are available to students:

Student Work Assistance

The State Legislature has approved a student work assistance program for enrolled students. Work opportunities are awarded largely on the basis of financial need. Students serve as secretaries to faculty, college library assistants, general assistants in art studios, science and industrial arts laboratories, dining hall employees, proctors and assistants in residence halls.

The College also participates in the Federal Work-Study Program as authorized by the Educational Opportunity Act of 1964. Priority for employment under this program is given to students whose family income is such that they could not attend college without financial assistance.

Priority for employment is given to upper-class students who have established a good general college record but freshmen in good standing are also eligible. In case of equal financial need, a student with higher academic standing would receive prior consideration.

Applicants for student work should be addressed to the Office of Student Personnel Services.

New Jersey State Scholarship Program

This is a state-wide competitive program that offers awards up to $500 or the cost of tuition, whichever is less. It is an annual stipend for a four-year period. Students attending college who receive basic awards become eligible for Incentive Grants, ranging from $100-$500. Applicants must have been residents of the state of New Jersey for a period of 12 months prior to application. Applications and further information may be obtained from high school counselors, or by writing directly to: State Scholarship Commission, Department of Higher Education, 225 West State Street, Trenton, New Jersey 08625.

Educational Opportunity Fund Grants (E.O.F.)

Educational Opportunity Fund Grants are available only to those students who are in the C.H.A.N.C.E. Program, provided sufficient need for funds is demonstrated. These funds are reserved for students who are economically and educationally deprived and have been residents of the state of New Jersey at least 12 months at the time of application. Additional information on the E.O.F. grants may be obtained from the Financial Aids Office.
Educational Opportunity Grants (E.O.G.)

Educational Opportunity Grants are awarded to students with special need for financial aid. All students admitted to the College are eligible for consideration upon application for financial aid. The amount of the grant ranges from $200-$1000, and is determined by the student’s need for funds and the amount of funds available for distribution. The grant must be matched by some other type of financial assistance (for example - matched with a loan, scholarship, and/or employment earnings). Application for E.O.G. awards are made directly to the Financial Aids Office.

LOANS

New Jersey Higher Education Assistance Authority Loans

New Jersey Higher Education Assistance Authority Loans are made by any qualified bank in New Jersey which has agreed to participate by having the loans insured under the Federal Guaranteed Loan Program. Undergraduates may borrow up to $1,500 a year depending upon the year in college, and the amount of interest depends on the family’s adjusted income level. Applicants must have been residents of New Jersey for a period of 6 months. The purpose of this program is to assist persons in meeting their financial need. Applications and information may be obtained by contacting the New Jersey Higher Education Assistance Authority, 225 West State Street, Trenton, New Jersey 08625.

National Defense Student Loan (N.D.S.L.)

National Defense Student Loans are available to accepted or enrolled students who demonstrate financial need. Loans of $1,000 per year may be granted, depending upon the funds available for distribution. Repayment at 3% interest starts nine months after a student terminates his schooling. The provisions further provide that up to 50% of the loan (plus interest) may be cancelled in the event the borrower becomes a full-time teacher. Cancellation is at the rate of 10% of the loan per year up to five (5) years. If a borrower becomes a teacher in a school which is listed as having a high concentration of students from low-income families, the loan may be cancelled at a rate of 15% per year until the loan is satisfied. A borrower has up to ten years after terminating his schooling to pay back the loan. A new cancellation provision has recently commenced and is in effect for all loans made after April 13, 1970. The provision states that if the maker undertakes military service in the Armed Forces of the United States, the amount of the note shall be reduced at the rate of 12½% of the total amount of the loan plus interest thereon for each year of consecutive service (not to exceed 50 percent of the total loan). Military service cancellation will apply only to loans made after April 13, 1970, for military service performed after June 30, 1970. Applications for National Defense Student Loans are made to the Financial Aids Office.

Emergency short-term loans

Two revolving short-term loan funds provide students with limited amounts of money for emergencies. No interest is charged for these loans, which are ordinarily repayable within eight weeks. Apply at the Student Activities Fund Office.
Alumni Loans

Students may borrow up to $250 with a maximum repayment time of 24 months. Repayment begins one month after graduation or leaving college at 3% simple interest. Information concerning Alumni Loans may be obtained from the Alumni Affairs Office.

On-Campus Student Employment

Various on-campus jobs are available to full-time students. Students desiring employment may make application in the Financial Aids Office.

College Work Study Program

A student may be eligible for off-campus employment under federally supported Work-Study Programs in the community. Eligibility is based upon demonstrated need, and final placement rests upon the availability of funds. Application for this program should be made in the Financial Aids Office.

Nursing Scholarship

The Nursing Scholarship is available to those students who are enrolled in the Trenton State College Nursing Program. Scholarship amounts vary in size, with a maximum limit of $1,500 per year. Students must demonstrate financial need in order to be considered for this scholarship. There is no repayment stipulation on this award. Applications for this scholarship are made to the Financial Aids Office.

Nursing Loan

The Nursing Loan is available only to those students who are enrolled in the Trenton State College Nursing Program. Students may borrow up to $1,500 per year, depending upon the availability of funds, and the amount of demonstrated financial need. Up to 50% of the loan plus interest may be cancelled, at the rate of 10% per year for each complete year of full-time employment as a professional nurse in the fields of nurse training and service in any public or nonprofit institution or agency. Up to 100% of the loan may be cancelled at the rate of 15% per year for each year of service as a full-time professional nurse in a public or nonprofit private hospital located in an area which has a substantial shortage of nurses at such hospitals. The interest rate on Nursing Loans is 3% per year. Applications for these loans may be made to the Financial Aids Office.

Law Enforcement Education Programs (L.E.E.P.)

This program provides awards in the form of loans and/or grants to State and local public law enforcement personnel and to persons who promise to enter the law enforcement field. For further information contact: Chairman, Department of Criminal Justice, Trenton State College, Trenton, New Jersey 08625.
Grading System

The academic standing of a student in every subject is reported at the end of each semester by a letter grade:

A—Excellent
B—Good
C—Fair
D—Poor
F—Failure
P—Passed—Satisfactory
U—Unsatisfactory

INC—Incomplete Work
WP—Withdrawn from Course,
Passing
WU, WF—Withdrawn from Course,
Failing
WD—Left College
CR—Requirement Met by
Examination

The “F” grade carries no credit.

The INC grade is used when a student is unable to finish a course because of illness or similar circumstances. Unless the student makes arrangements with his instructor to complete the course requirements, the INC will automatically become an F.

Comprehensive evaluation of the student’s academic standing is indicated in his grade point average. The numerical equivalents for determining grade point average follow:

A — 4; B — 3; C — 2; D — 1; F — 0; WF — 0.

The grade point average is determined by dividing the total grade points earned by the total number of semester hours attempted, exclusive of WP, WD, INC, CR, P and U.

Students taking courses at other colleges while registered at Trenton State College will not receive transfer credit for letter grades below C. The student’s average is computed only on the basis of work taken at Trenton State College, including summer session.

Repetition Of Courses

When students repeat a course (with a higher grade or a lower grade), only the higher grade received will be used in the cumulative average. This procedure will be followed whether the course is repeated prior to or after September 1, 1970. A repeated course is defined as the study of the same course content for the second time at this institution. If the course is repeated with the same grade, only one of the grades will be used in the cumulative average. All grades will appear on the transcript. The repetition of a course previously passed does not increase credit toward graduation. It will be the student’s responsibility to alert the Registrar in writing that the student is repeating or has repeated the course.

Withdrawal From Courses

Students may not withdraw from individual full semester courses after the end of the first quarter in the fall semester, nor after the end of the third quarter in the spring semester; nor may a student reduce his program to less than
twelve semester hours without special permission of the Office of Academic Affairs. Failure to observe regulations governing withdrawal will affect the student’s final grades.

The Pass/Unsatisfactory Option

A junior or senior is permitted to designate, from his electives, one course each semester* for which he will receive a final grade of either PASS or UNSATISFACTORY. The final grade is not computed in the cumulative average; however, the PASS grade is necessary to achieve credit toward graduation. The opportunity to select the P/U Option is offered during the first four weeks of each semester.

*Transfer students having more than 32 semester hours of transfer credit are permitted to select only one course per academic year under this option.

Assumptions regarding operation of the P/U Option

1. Students must meet both prerequisite requirements and the course requirements as set forth by the instructor.
2. Grades of “D” or higher will become PASS, while a grade of “F” will become UNSATISFACTORY.
3. The Pass/ Unsatisfactory Option cannot be elected for any required course whether in the major or in groups A through E (distribution requirements) on the student’s control sheet. All courses completed under the P/U Option will be considered as electives.
4. Students are asked not to inform their instructors of their decision to register under the P/U Option.
5. Students have the privilege - after registration - of changing from a graded status to an un-graded status, or returning to graded status, within the first four weeks of the course.

Forms for the P/U Option are made available when students pick up class schedules at registration, and will be available at the registrar’s office during the first four weeks of the semester.

Advanced Placement (Credit by Examination)

Students who have learned the material of a course through non-collegiate study may apply to the Office of Academic Affairs in writing to receive credit by examination through which credit may be granted. The student’s application should include a statement of the nature of the educational experience. There is a fee of $25 for each examination. See also p. 14. Advanced Placement by C.L.E.P. Subject Examinations.

Honors

Students graduating with total cumulative averages of 3.45 or better for courses completed at this college are recognized as honor students with the following designations: With Honors, 3.45-3.64; With High Honors, 3.65-3.84; With Highest Honors, 3.85-4.00. A student whose semester average is 3.20 or above will be named to the Dean’s List.
Academic Load

Although the normal academic load is fifteen or sixteen semester hours, students may carry as few as twelve or as many as eighteen semester hours without special permission. A student may carry fewer than twelve semester hours only by permission of the Office of Academic Affairs, or when, as a graduating senior, fewer than twelve semester hours are needed. Permission to exceed the eighteen semester hours maximum must be granted by the chairman of the student's major department. The student seeking such permission should normally be a sophomore with a 3.60 average or a junior or senior with a 2.60 average. The written approval of the department chairman should be submitted to the Registrar when the student picks up his schedule.

Summer School and Concurrent Enrollment

Permission for concurrent enrollment in the Division of Continuing Education, or for enrollment in Summer Session courses at Trenton State College or other colleges, requires prior permission of the Office of Academic Advisement and Evaluation.

Student Class Schedules

A student must be prepared to accept a personal class schedule which may include classes at any hour from 8:00 A.M. to 5:50 P.M., Monday through Friday, and from 8:00 A.M. to 12:50 P.M. on Saturday. Requests to avoid certain days or hours cannot be honored.

Attendance Regulations

Absence from class because of illness, urgent personal reasons, or conflicting engagements is generally handled informally between student and instructor. The Student Personnel Office will be notified when a student has been absent from three consecutive class meetings, when a student has an excessive number of absences or tardiness, or when a situation prevails in which continued absence will affect a student's academic progress. A student will be automatically withdrawn from college after four consecutive weeks of absence from all of his classes. Requests for waiver of rules may be made by department chairmen, students, or parents. Administrative excuses for absence from class for field trips, varsity sports, and other college activities are issued by the Office of Academic Affairs.

A student who misses a final examination for an excusable reason must make arrangements with his instructor for a rescheduling or receive a grade of F in the final examination.

Academic Probation and Retention

A student whose scholarship record is unsatisfactory may be dismissed from the College; normally this action will be taken at the end of the academic year, except for mid-year dismissals for students going on their fourth probation.

The cumulative average covers work completed at Trenton State College for all semesters and summer sessions. Within retention limits, students whose
cumulative average falls below 2.00 are placed on academic probation. A 2.00 cumulative average is equivalent to a grade average of C.

The minimum cumulative average for retention as a student is based on the total number of semester hours attempted:

- 25-35 semester hours: 1.60
- 36-65 semester hours: 1.80
- 66 or more semester hours: 2.00

The appropriate Academic Dean may take the initiative in dismissal of students whose academic record is unsatisfactory, although it may fall within retention standards.

Students who seek to improve their academic standing through attendance at summer sessions will not be penalized. They will be retained if their cumulative average at the end of the previous academic year was high enough to permit them to continue their studies had they not attended summer sessions. (Summer session taken at this college will be included in the cumulative average at the end of the fall semester; courses taken elsewhere are not included in the cumulative average.)

A student will be dismissed instead of being placed on a fourth probation.

A department may recommend to the Academic Progress Committee that a student be dropped from his major field if he fails to maintain a 2.5 or better quality point average in his major work.

Students dismissed because of poor academic performance are ineligible to re-enroll until two full semesters have elapsed. Students desiring to resume their studies after two semesters may choose one of the following alternatives:

1. They may apply through the Office of Academic Advisement for readmission as full time students. (Deadlines for application must be observed. See Readmission below.)

2. They may enroll in the Division of Continuing Education as non-matriculated students. (Under the policy of the Division, they may take a maximum of six semester hours each semester.) Retention of such non-matriculated students will be determined in accordance with college standards on the basis of their total record at Trenton State College at the end of the academic year in which they have attempted twelve additional semester hours.

**Readmission**

Students who discontinue their enrollment for any reason must submit an application for readmission to the Office of Academic Advisement and Evaluation by March 15 for those wishing readmission to the Summer Session or to the Fall Semester, and October 15 for those wishing readmission to the Spring Semester.
All arrangements concerning housing and assignment to residence halls are made in the Housing Office. Inquiries concerning any student housing should be addressed to the Director of Housing, Brewster House.

With the completion of two new buildings, campus residence halls accommodate 2260 students. About 2000 students currently live in college-approved off-campus houses or in apartments either in the vicinity of the campus or in nearby communities.

Residence Hall Policies

Students whose home post office addresses are 10 miles or more outside of Mercer County by radius from the campus are expected to live in college residence halls as long as space is available. (Upon completion of the halls under construction, this radius will undoubtedly be reduced.) Quotas of spaces are allotted to each class in accordance with the size of the class.

Residence hall spaces are filled until September 1 through the use of official drawing lists. From September 1 until the middle of the first semester, off-campus residents will not be moved on campus. About October 1, students who are eligible may sign up on first come, first served, waiting lists by classes. These lists will be followed in filling vacancies for the remainder of that academic year.

A $25.00 refundable room deposit is required at the time of assignment to campus residence. This reserves a campus space for the student. If the space is cancelled after room drawing, the deposit is forfeited. If the $25.00 deposit is not received at the specified deadline, the space will be given to the next eligible student.

Voluntary withdrawal from the college results in forfeit of room rent for the balance of that quarter. A condition of residence hall occupancy is the provision that when the student contracts for the room he is responsible for the rent for the full year.

When the college administration asks a student to move from a residence hall, as for academic dismissal, disciplinary dismissal, and other cases, the withdrawal policy will not apply.

Final decision regarding all withdrawals will lie with the Housing Committee.

Room contracts must be completed and returned to the Housing Office on the date specified. Failure to do this will result in the loss of the space. Students are responsible for the condition of their rooms and furnishings. The cost for any damage will be billed to the student.

House or area councils of students elected by resident students serve as governing bodies for the various residence halls. They plan programs and establish committees to carry out programs in the halls. They are assisted by a resident staff of full time student personnel workers, resident advisors, and resident assistants. Resident assistants are students who assist in the development of all aspects of the program including counseling and educational and social programs.
Residence and dining halls are closed during scheduled vacations. On certain long weekends, when advance notice has been given, the residence and dining halls may be closed.

Off Campus Residence

When space in residence halls is no longer available, students may rent rooms in college-approved homes. Only students who are sophomores, juniors, seniors or over 21 years of age, or married and living with spouse, are permitted to live in apartments.

Students are required to register their off campus addresses and subsequent changes of address with the Off Campus Student Affairs Office. Failure to provide an accurate, and current off campus address, will result in disciplinary action.

Students are responsible at all times for knowing all college policies and regulations pertaining to off campus living, as published in the Housing Handbook.

Automobiles on Campus

Resident students are not permitted to have cars on campus. Students who commute daily from their homes, or from off campus residences, beyond a prescribed distance, must register their cars at the time of registration for courses in order to obtain an on-campus parking permit for which a fee is charged. Only cars so registered are allowed on campus.

Food Service

All students who live on campus must purchase dining hall meal contracts. Off campus students may purchase such contracts if they wish.

Meal contracts may not be cancelled except in emergency or exceptional situation as determined by the Coordinator of Housing and Food Services to whom application must be made. If the request is granted, a four week waiting period, defined as four weeks while college is officially in session, is required before a refund can be initiated. Students in professional programs whose college assignments conflict with their use of dining facilities should consult the Coordinator of Housing and Food Services.

Counseling

Counseling is available to all students in residence halls, in off-campus housing and in the offices of the Counseling Service itself. Four full-time psychologists are on duty. All consultations are confidential, and information about students is not available to anyone else unless specifically requested by the student involved.

Faculty Advisor Program

Each student is assigned to an advisor. It is the responsibility of the student to consult with his advisor whenever questions about his college work arise. Department chairmen also are available to meet with students regarding courses of study. The advisement program is under the supervision of the Office of Academic Advisement and Evaluation.
Medical Services

The Student Health Center is located in Norsworthy Hall. A nurse is on duty at all times while the College is in session. The cost of special services, should they be necessary, are borne by the individual student. A medical reimbursement insurance plan is available, and the College strongly recommends that all students enroll. Any student who intends to participate in varsity sports is required to be a member of the plan. Coverage costs $20.00 for one calendar year.

The College Library

The Roscoe L. West Library occupies a centrally located impressive building. It was erected in 1931 under the presidency of Dr. West, for whom it was named when he retired in 1957. Its facilities were greatly expanded and thoroughly modernized by the large annex which was completed in 1970, at the cost of approximately $2,100,000. The library complex occupies more than 100,000 square feet. It has a total seating capacity of more than 1,500.

Included in this figure are 750 carrels, primarily for undergraduate students who want to do concentrated work. There are also commodious carrels for faculty members and graduate students in quiet areas of the building. The entire library complex is air-conditioned.

The library has a highly competent staff, with 19 professional members having wide background of advanced studies in major subject areas. This enables them to give a large measure of bibliographic guidance. Students are encouraged to consult with members of the Reference Department and the four readers advisors (in education and psychology; history and social sciences; humanities; and science and technology).

The book collection of the library, growing at an annual rate of 18,000, is approaching 200,000 volumes. Books are selected with great care to meet all curricular needs, as well as to satisfy the intellectual curiosity of students who want to explore the heritage of civilization and to understand the great issues of our time. Especially rich and comprehensive is the reference collection of about 18,000 volumes, that includes the leading encyclopedias, dictionaries, atlases, and a great variety of subject handbooks in several languages. Bibliographic facilities include the catalog of the Library of Congress with its supplements, the National Union Catalog and the catalog of the Library of the British Museum.

The library subscribes currently to almost 1,600 periodicals. They represent a cross section of outstanding scholarly, professional and general journals, both American and foreign. They are attractively displayed in the Horace Mann Room. More than 19,000 bound volumes of backfiles of major journals are housed on floor A. Their contents are easily accessible through many indexes and abstracting services. In the microtext room on floor C, readers will find the complete microfilms of the New York Times (since 1851), The Times of London (since 1785), The Trenton Times (since 1883), also the New York Tribune under Horace Greeley's editorship (1841-1872), the Christian Science Monitor (since 1960), and many journals. Special attention is called to the ERIC collection on microfiche, a goldmine for research in Education. Near the micro...
texts is the listening room for more than 3,500 music and literature recordings.

The circulating book collection is organized in a broad subject arrangement. Science and Technology occupy one-half of floor A in the annex, Fine Arts and Music the other. On floor B, close to the entrance hall, are Social Sciences, History and the Humanities, while floor C houses Education and related subjects, Psychology, Library Science, a model collection of children's books, and the Curriculum Materials Center.

The library has received many significant gifts. None surpasses a recent donation of Mr. Sol Feinstone, Washington Crossing, Pa. He gave George Washington’s own copy (in two volumes bearing his signature and his bookplates) of David Ramsay’s famous History of the Revolution in South Carolina, printed in Trenton in 1785. Mr. Feinstone also presented to the library many documents and books on the American Revolution. These and about 1,000 other rare books, dealing especially with New Jersey history and with the rise of American education, may be studied in the Special Collections room on floor C. Student organizations also have frequently enriched the library by generous gifts, e.g., the Class of 1970, the Newman Club and the Social Studies Association. The Student Executive Board has supported the Roscoe L. West Book Fund by annual allocations since 1957, enabling the library to buy, with the advice of a student committee, many costly sets of lasting importance.

The library is open to the public 92 1/2 hours a week; a reduced schedule applies during vacations. For additional information, the last edition of the Guide to the Library should be consulted.

**REQUIREMENTS FOR GRADUATION**

A student’s eligibility for the degrees of Bachelor of Arts or Bachelor of Science is based on the following:

(a) Filing through the Office of Academic Advisement an application for conferring of the degree (known as the Commencement Information Card) during registration for the semester or summer session in which the course requirements are to be completed.

(b) A cumulative average of 2.00, the equivalent of a letter grade of “C”, computed according to the policy of the college.

(c) A minimum of 124 semester hours of credit, which must include all the major courses, related courses, and distribution courses listed in the program of a specific major:

- A minimum of 62 semester hours must be earned in senior colleges.
- A minimum of 32 semester hours must be earned at Trenton State College.
- A minimum of 24 semester hours of the final 32 semester hours must be earned at Trenton State College.
- A maximum of 24 semester hours may be established by examination.
THE PATTERN OF DEGREE REQUIREMENTS

All majors of the college are structured within the following pattern which totals 124 semester hours.

GROUP A: REQUIRED of every student .............................................. 6 s.h.

ENGLISH 1 — 3 s.h. One of the following must be taken but not more than one may apply to degree requirements.

- 114.07 Freshmen English Seminar
- 114.06 Understanding Communication
- 114.08 Literature and Composition
- 114.09 Writing

SPEECH 1 — 3 s.h. One of the following must be taken but not more than one may apply to degree requirements.

- 138.06 Persuasion and Propaganda
- 138.08 Discussion and Debate
- 138.07 Fundamentals of Public Speaking

Note: 138.03 Introduction to Speech Communication satisfies this requirement for Speech Communication and Theatre Majors.

Students majoring in Elementary Education, Early Childhood Teacher-Librarian and Criminal Justice must also complete two semester hours in physical education, thus bringing the total of Group A requirements to 8 semester hours.

GROUP B: HISTORY AND SOCIAL SCIENCES REQUIRED ..................... 12 s.h.

Not more than 6 s.h. in any one field may be applied to this requirement. With the exception of teacher’s preparation courses, any courses offered in the following fields may be chosen if the student meets the pre-requisites:

- Anthropology - Sociology
- Economics
- Geography
- History
- Political Science
- Psychology

GROUP C: ARTS AND HUMANITIES REQUIRED ................................. 12 s.h.

Not more than 6 s.h. in any one field may be applied to this requirement. Courses which fulfill this requirement may be chosen from among the following as they are made available:

Art

- 117.44 Fundamental Movement .............................................. 2 s.h.
- 117.08 Elementary Folk Dance .............................................. 1 s.h.
- 217.17 Survey of the Dance .............................................. 1 s.h.
- 217.37 Modern Dance ..................................................... 1 s.h.
- 317.65 Social & Advanced Folk Dance ................................ 1 s.h.

Dance

- 314.40 The Film .......................................................... 3 s.h.
REQUIREMENTS FOR GRADUATION

Industrial Arts

119.15 General Industrial Arts ........................................ 2 s.h.
119.20 Graphic Arts I .................................................. 3 s.h.
119.25 Creative Design .................................................. 2 s.h.

Literature

Only English department courses in literature and literature in translation courses offered by the Modern Language department may be applied. Most have pre-requisites.

Modern Language

Any 6 s.h. in one of the Languages offered.

Music

123.01 Survey of Music Literature .................................... 2 s.h.
123.20 Music Fundamentals ............................................ 2 s.h. { Have no pre-requisites
123.50 Literature of Opera ............................................. 2 s.h.
223.30 Hist. & Lit. 1 - Classical ..................................... 2 s.h.
323.50 Hist. & Lit. 11 - Romantic ................................... 2 s.h. { Have pre-requisites
423.30 Contemporary Music ............................................ 2 s.h.

Philosophy - Religion

All courses offered, provided the student meets pre-requisites.

Theatre

138.05 Intro. to Theatre .................................................. 3 s.h.
238.01 Oral Interpret. of Literature .................................. 3 s.h.
238.09 Theatre History .................................................. 3 s.h. { Have pre-requisites
238.22 Theatre Criticism ............................................... 3 s.h.
338.26 Reader's Theatre ................................................. 3 s.h.

GROUP D: SCIENCE REQUIRED ......................................... 6 s.h.

Any of the following 6 s.h. courses is acceptable in most majors. (See below for exceptions.)

132.15-.16 Prin. of Biology I & II ..................................... 6 s.h.
133.03-.04 Prin. of Chemistry I & II .................................. 6 s.h.
133.11-.12 Environmental Chemistry I & II .......................... 6 s.h.
134.07-.08 Prin. of Physics I & II ..................................... 6 s.h.
134.50-.51 Physical Science for Non-Science majors I & II ....... 6 s.h.
133.40-.41 Growth of Scientific Ideas I & II ......................... 6 s.h.

Or, any 2 of the following:

133.20 Geology ............................................................. 3 s.h.
134.10 Descriptive Astronomy .......................................... 3 s.h.
134.25 Intro. to Meteorology .......................................... 3 s.h.
Students who expect to undertake the following majors must, instead of the above, take the Science indicated below:

Majors in Any Science - 133.30-31 Gen. Chem. I & II ................. 7 s.h.
Majors in Health Ed. - 133.30-.31 Gen. Chem. I & II ................. 7 s.h.
Majors in Mathematics - 134.17-.18 Gen. Physics I & II .............. 7 s.h.
Majors in Nursing - 133.30-.31 Gen. Chem. I & II ................... 7 s.h.
Majors in Technology (All) - 133.30-.31 Gen. Chem. I & II .......... 7 s.h.

GROUP E: MATHEMATICS REQUIRED ....................... 6 s.h.
Any 6 s.h. of mathematics offered by the Mathematics department is acceptable, provided pre-requisites are satisfied.

Students who expect to undertake the following majors, however, must include the Mathematics courses as follows:

Majors in Physics and Mathematics -
121.00 Elementary Functions ........................................... 3 s.h.
121.27-.28 Calculus I & II ............................................. 6 s.h.
Majors in Sciences except Physics -
121.25-.26 Intro. to Calculus I & II .................................. 6 s.h.
Majors in Political Science - 121.15 Statistics ....................... 3 s.h.
Majors in Technology (All) - 121.25-.26 Intro. to Calculus I & II 6 s.h.

GROUP F: MAJOR COURSES AND RELATED COURSES REQUIRED
These are specified in the programs outlined for each major. The semester hours vary among majors.

GROUP G: ELECTIVES
The choice of courses in this category is unrestricted. The semester hours available vary among majors with a minimum of 18 semester hours, generally.

Swimming Requirement
Every matriculating student must satisfy the college swimming requirement in order to be eligible for graduation. The requirement may be satisfied by (1) passing the swimming exemption test or (2) completing course 117.61 Beginning Swimming or a more advanced swimming course. Further particulars may be obtained through the office of the chairman of Health and Physical Education.

Obligations
Obligations to the college, including such matters as tuition, fees, outstanding library books, parking fines, *et cetera*, which have not been fulfilled, may result in the withholding of a student's transcript either at graduation or any time prior to graduation.
MAJORS LEADING TO BACHELOR DEGREES

Degrees will be conferred only upon completion of the entire program as outlined for a specific major. The college offers programs leading to Bachelor of Arts and Bachelor of Science Degrees as follows:

**Bachelor of Arts**
- Art, Liberal Arts
- Art, Teaching
- Biology, Liberal Arts
- Biology, Teaching
- Chemistry, Liberal Arts
- Chemistry, Teaching
- English, Liberal Arts
- English, Teaching
- Geography, Liberal Arts
- Geography, Teaching
- History, Liberal Arts
- History, Teaching
- Mathematics, Liberal Arts or Computer Emphasis
- Mathematics, Teaching
- Music, Liberal Arts
- Music, Teaching
- Physics, Liberal Arts
- Physics, Teaching
- Political Science, Liberal Arts
- Political Science, Teaching
- Psychology, Liberal Arts
- Sociology, Liberal Arts
- Sociology, Teaching of Social Studies
- Speech Communication and Theatre, Liberal Arts
- Speech Communication and Theatre, Teaching

**Bachelor of Science**
- Business Administration (with either an Accounting, General Business or Marketing Emphasis)
- Business Education (with either Full Certification, Accounting, or Secretarial Studies Emphasis)
- Criminal Justice
- Distributive Education
- Early Childhood Education (Kindergarten Primary)
- Electronic Technology
- Elementary Education
- Health Education
- Health and Physical Education
- Industrial Arts Education
- Industrial Technology
- Mechanical Technology
- Nursing
- Special Education for the Developmentally Handicapped
- Special Education for the Hearing Impaired
- Speech Pathology and Audiology (For other than public schools)
- Speech Pathology and Audiology (For public school work)
- Teacher-Librarian (Combines Elementary teaching and School Librarian)

The major subject course work required in the Bachelor of Arts programs is essentially the same in both the Liberal Arts and Teaching programs. Those preparing for teaching simply have fewer electives available to them since the teacher preparation courses reduce the elective, not the major, courses.

Freshmen who are not prepared to indicate a major at the time of making application may designate themselves as an Undeclared Major. They may remain in this status only during their freshman year. Freshmen who are admitted to the C.H.A.N.C.E. program may remain in this category only during their first year. They are required to declare a major before registering for their second year.
DECLARING AND CHANGING MAJOR

An applicant indicates his choice of major on his application for admission to the college. If he is admitted, he must remain in that major during his first semester of enrollment.

Should the student wish to change his major for any subsequent semester, he must obtain a Request for Change of Major Form from the Office of Academic Advisement and Evaluation, and complete and return it by October 30 (to be effective for a spring semester) or by March 30 (to be effective for a fall semester).

Freshmen will routinely be asked during March each year to confirm their existing major or to declare a different major which they wish to begin in the sophomore year.

Students re-entering the college after being withdrawn may indicate their desire for a different major on their application for re-admission.

NUMBERING OF COURSES

A five digit course numbering system has been developed for all courses. The first digit indicates the year; the next two digits, the department. The two digits following the decimal point indicate a specific course in the department. The code numbers (second and third digits) of courses of the departments are:

<table>
<thead>
<tr>
<th>Department</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>10</td>
</tr>
<tr>
<td>Anthropology</td>
<td>41</td>
</tr>
<tr>
<td>Biology</td>
<td>32</td>
</tr>
<tr>
<td>Business</td>
<td>11</td>
</tr>
<tr>
<td>Chemistry</td>
<td>33</td>
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<td>English</td>
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<tr>
<td>Health and Physical Education</td>
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<td>Philosophy and Religion</td>
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<td>Interdisciplinary</td>
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</tbody>
</table>
A freshman course in English would be 114.10; a sophomore course in mathematics 221.05; a junior course in music 323.20; and a senior course in speech 428.30. Courses in the five hundreds are graduate courses but may be opened to seniors by permission of the chairman of the offering department. Courses in the six hundreds are open only to graduate students.

Class hours listed in the course description in this catalog indicate the number of hours the class will meet each week. Courses labeled with M are for men only and with W for women only.

MINORS AND SECOND TEACHING FIELDS

A minor consists of a minimum of 18 semester hours of courses in a specific field (other than one’s major) as prescribed by the departments. A second teaching field consists of the program of courses prescribed by a department, such program to include at least the minimum number of semester hours both in content specialization and in methods of teaching to meet the requirements of the State Department of Education, Office of Teacher Education and Certification for an endorsement to teach in a field other than one’s major teaching field.

Beginning with the Class of 1975, the requirements for second teaching fields may be increased by the State Department of Education.

Students are encouraged, but not required, to develop a minor or a second teaching field. However, the college cannot guarantee that a student will be able to complete either because available spaces in courses must first be allocated to majors in a department; complexities of scheduling may preclude the scheduling of these courses; and the scheduling of the student’s major courses must take priority over those of minor or second teaching field courses.

Only those students who are preparing to teach may undertake a second teaching field. However, all students may undertake a minor. Those who complete a second teaching field concurrently with the completion of degree requirements in their major will be eligible for a teaching certificate in the second field. When a student is unable to complete all the requirements for a second teaching field before completing his degree requirements, he may take remaining courses on a part-time basis later and can apply through the Office of the County Superintendent of Schools for the additional teaching certificate. Those who complete a minor concurrently with the completion of degree requirements in their major will have this fact recorded on their permanent academic record.

The chief value of a minor is that it evidences a student’s interest in organizing his educational experiences around both his major and a secondary, or minor, emphasis.

The procedures to be followed by a student who undertakes to develop a minor or a second teaching field include knowing the requirements; consulting the department chairman, especially regarding unspecified options; and requesting the department chairman to notify the Office of Academic Advisement and Evaluation when the student has registered for the final courses required.

Only the minors and second teaching field indicated on page 34 are currently available. Details of these appear in this catalog in the section describing the same major.
## REQUIREMENTS FOR GRADUATION

<table>
<thead>
<tr>
<th>Subject</th>
<th>Minor</th>
<th>Second Teaching Field</th>
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<tbody>
<tr>
<td>Art</td>
<td>X</td>
<td>x</td>
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<tr>
<td>Biology</td>
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<tr>
<td>Black Studies</td>
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<td>Secretarial Studies</td>
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<td>Distributive Education</td>
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<tr>
<td>Chemistry</td>
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<tr>
<td>Classics</td>
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<tr>
<td>Economics</td>
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<td>x</td>
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<tr>
<td>Geography</td>
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<tr>
<td>Health and Physical Education</td>
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<tr>
<td>Health Education</td>
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</tr>
<tr>
<td>History</td>
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<tr>
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<tr>
<td>Early Childhood</td>
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<td>Library Science</td>
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<tr>
<td>Linguistics</td>
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<td>x</td>
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<tr>
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<td>Modern Languages</td>
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<tr>
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<td>Philosophy</td>
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<tr>
<td>Physics</td>
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<td>Political Science</td>
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<td>Psychology</td>
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<td>Sociology</td>
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<td>Special Education -</td>
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<td>Developmentally Handicapped</td>
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<tr>
<td>Special Education - Hearing Impaired</td>
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<td>None</td>
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<tr>
<td>Speech Pathology and Audiology</td>
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<td>None</td>
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<tr>
<td>Speech and Theatre</td>
<td>X</td>
<td>None</td>
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<tr>
<td>Technologies</td>
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</tbody>
</table>
Sociology is concerned with the structure of societies, past and present, and their functions. The department stresses the connection between sociology and the other social sciences, the humanities, and related sciences and technologies. Courses examine significant social issues and contemporary problems.

**Sociology Major***

**First Year**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>English I</td>
<td>3</td>
<td>127.01</td>
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<td>Speech I</td>
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<td>Science</td>
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<td>118.07-08</td>
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<tr>
<td>Arts and Humanities (Modern Lang.)</td>
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**Second Year**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>114.20</td>
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<td>121.15</td>
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<tr>
<td>Arts and Humanities</td>
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<td>118.20-21</td>
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<td>Options in Anthro-Sociol.</td>
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<tr>
<td>121.01</td>
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**Third Year**

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<td>Related Social Sciences</td>
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**Fourth Year**

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<td>Anthro. or Sociol. Options</td>
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<tr>
<td>Related Social Science</td>
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</table>

Students interested in teaching are required to conform to the state certification requirements for Social Studies. They should select in their junior year Development of Educational Thought, Educational Psychology, Contemporary Health Problems, Methods of Teaching High School Social Studies, and Junior Professional Experience; in the senior year the student will select Student Teaching and Teacher in the School and Community.

*See page 30 for swimming requirement.

**Intermediate Language is required for graduation.**

**Course Sequence for Sociology Minor**

Required: 18 hours in sociology as follows:

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>127.01</td>
<td>Introductory Sociology</td>
</tr>
<tr>
<td>227.05</td>
<td>Contemporary Social Problems</td>
</tr>
<tr>
<td>Sociology Electives</td>
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</tbody>
</table>

**TOTAL 18**
## ANTHROPOLOGY

### 141.10 Introduction to Cultural Anthropology (3 class hours)
An introduction to the science of culture; comparative analysis of preliterate technologies, economic systems, family systems, ideologies and religions; the development of culture. Emphasis will be on the variety of responses exhibited by simple and complex societies to common human problems.

### 241.05 Human Evolution (3 class hours)
An intensive consideration of human evolution and race formation. Principles of evolution and genetics, population genetics, comparative primate morphology and behavior, primate and hominid fossils, race formation, races of the world.

### 241.10 Cultures of Latin America (3 class hours)
Introduction to cultures of Latin America; comparative approach applied to primitive, peasant, and modern societies. Includes prehistoric and historic data as it influences present day national development.

### 241.15 New World Archaeology (3 class hours)
An investigation of aboriginal cultures of North and South America from Paleo-Indian times to the Discovery. Emphasis will be on the culture area approach and ecological adaptation of local environments. Theoretical considerations will be given to definition of culture stages in New World culture growth.

## SOCIOLOGY

### 127.01 Introductory Sociology (3 class hours)
Development of sociological principles through the study of the community. Emphasis on its ecology, class and institutional structure, and the processes of human interaction. Relation of community to society at large. Study of the nature of culture and cultural change.

### 227.05 Contemporary Social Problems (3 class hours)
**Prerequisite:** 127.01.
Analysis of the causes of social problems in general and of their complex interrelationships. A survey of the wide range of social problems in preference to intensive study of a limited number of problems. Emphasis on community responsibility for social problem control.

### 327.10 The Sociology of Anti-Social Behavior (3 class hours)
**Prerequisite:** 127.01.
Emphasis placed on juvenile delinquency, adult criminality, and the vices. Study of the extent of these problems, their causation, and methods of prevention and control. Investigation of institutional treatment facilities with special stress on New Jersey institutions.

### 327.15 American Minority Groups (3 class hours)
**Prerequisite:** 127.01.
The focus of attention upon racial, religious, and ethnic minorities. Emphasis on their interaction with majority groups and the resolution of the resultant tensions. Study of the relevance of this problem to educational practices, American ideals, and our position as a world power.

### 327.20 Problems of Urbanization (3 class hours)
**Prerequisite:** 127.01
Theoretical approach with emphasis placed on the study of urban problems. Theme of course: adjustment, the adjustment of the city to the people and of the people to each other and their groups.
327.30 Population Theory and Problems (3 class hours)
Prerequisite: 127.01.
Study of theories of population, population data, and how they are obtained; changes in population and their social, economic, and political impact, and of methods tried or advocated to regulate population phenomena.

327.35 Sociology of the Family (3 class hours)
Prerequisite: 127.01.
A study of the institutionalized personal relationships between man and woman in socially approved constructs. Attention is given to cohesive and destructive forces in marriage. The role of children in various family configurations and class levels is explored, together with the impact of contiguous institutions.

327.36 Cultural and Social Change (3 class hours)
Prerequisite: 127.01.
A study of the nature and explanation of cultural and social change. A critical examination of some prominent theories of change (Marx, Weber, Sorokin, Toynbee). An examination of change in terms of the interplay between systems of meaning (religious ethics, art styles, etc.) and social processes (movements, elites, community vs. bureaucracy, etc.)

327.40 The American Status System (3 class hours)
Prerequisite: 127.01.
An analysis of the distribution of wealth, prestige, and power and its consequences for the individual and for American Society.

327.60 Casework in Family Living (3 class hours)
Prerequisite: 417.65.
Emphasis on the family as a social unit. Casework techniques applied to school health problems.

327.65 Sociology of Poverty and Welfare in the United States (3 class hours)
Prerequisite: 127.01.
History, nature, extent, levels and causes of poverty. Relationship to industrialization, urbanization and technology. Impact upon major institutions and their functions. Ethnic and racial group problems and reactions. Federal, state, county and local government, as well as private organizational efforts to combat poverty. A consideration of social policy implications.

427.01 Methods of Sociological Research (3 class hours)
Prerequisites: 127.01 Introductory Sociology, 121.15 Statistics.
Consideration of the nature of scientific method, as well as alternative paths to knowledge as they apply to sociology. Relation of theory to research. Conceptualization, hypothesis formation and definition. Collection and treatment of quantitative and qualitative data - analysis and inference. Research design including the interview, questionnaire, sampling, participant observation, and human documents as sources of social data. Course is based on lectures and laboratory application.

427.60 Sociological Theory (3 class hours)
Prerequisite: 127.01.
An historical analysis of the contributions of sociological thinkers to the understanding of social structure and social process. An effort will be made to show how thinkers like Durkheim, Weber, Marx, Mead, Simmel, Veblen, Parsons, Merton and others reflect their time and have left their impression on the developing discipline of sociology.
ART

Professors: Ahrens, Burns, Kern (Chairman)
Associate Professors: H. Goldstein
Assistant Professors: I. Johnson, Lehman, Pawlowsky, Wilensky
Instructors: Barnes, Thorsen

Throughout college life, the arts are engaged to educate through all the senses. Neverthless, art is a subject with structure, a broad domain, a vast history, a varied technology, and a developed pedagogy. The structure of art incorporates its history in all cultures and many media. Due to an ever-increasing awareness in contemporary society of the place and meaning of the arts in life, there is a growing need for many people with the ability to produce and interpret the visual arts. The curricula outlined here are planned to meet some of these needs.

The curriculum for the first two years is the same for all art majors.

**First Year**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course</th>
<th>Sem.</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>310.05</td>
<td>Drawing I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>110.20</td>
<td>Western Art Tradition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>210.30</td>
<td>Design I</td>
<td>3</td>
<td></td>
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<tr>
<td>114.20</td>
<td>Intermediate Composition</td>
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<tr>
<td>003.30</td>
<td>English I</td>
<td>3</td>
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*See page 30 for swimming requirement.

**Second Year**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course</th>
<th>Sem.</th>
<th>Hrs.</th>
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<tr>
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<tr>
<td>110.15</td>
<td>Contemporary Art</td>
<td>3</td>
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<tr>
<td>210.25</td>
<td>Printmaking I</td>
<td>3</td>
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<tr>
<td>210.31</td>
<td>Painting I</td>
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**Art Major: Liberal Arts**

**Third Year**

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<tr>
<td>904.21</td>
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**Fourth Year**

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<th>Course No.</th>
<th>Course</th>
<th>Sem.</th>
<th>Hrs.</th>
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**Art Major: Art Education**

**Third Year**

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<tr>
<td>313.60</td>
<td>Principles, Practices in Art Education (1st Sem.)</td>
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<td>117.05</td>
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<td>Development of Educational Thought</td>
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<th>Course No.</th>
<th>Course</th>
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<th>Hrs.</th>
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<tr>
<td>410.90</td>
<td>Art Studio or Art History Options</td>
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<td>413.01</td>
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<tr>
<td>413.40</td>
<td>The Teacher in School and Community</td>
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**Fourth Year**

<table>
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<tr>
<th>Course No.</th>
<th>Course</th>
<th>Sem.</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>413.01</td>
<td>Student Teaching</td>
<td>6</td>
<td></td>
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</tbody>
</table>

Total for Year
Art Minor

REQUIREMENTS:

Art History—one course of 3 s.h. chosen from among any art department history courses ........................................... 3

Studio— one course emphasizing 2 dimensional concepts in art (such as printmaking, painting, drawing) ........... 3
one course emphasizing 3 dimensional concepts in art (such as sculpture, ceramics) ........... 3
one course emphasizing the craft area (such as jewelry, textiles, ceramics) ........... 3

Options— two art courses ................................................................. 6

Art Minor— Total ........................................................................ 18

For a second teaching field, 313.84 Principles, Practices and Materials in Art Education (3 s.h.) is also required.

All Art Studio Courses have outside assignments in addition to the stated hours.

110.15 Contemporary Art (3 class hours)
Continuity and change in art trends since Early Renaissance, with emphasis on painting. Brief reviews of the Renaissance tradition and other art forms which have influenced contemporary artists. Illustrated lecture, field trip, student research and reports.

110.20 Western Art Tradition (3 class hours)
Discussion of the origins and stages of Western Art. Review of painting, sculpture, architecture and the minor arts tracing how the artist creates the images of his time and demonstrating how these change from one period to another. The relationship of historical and contemporary aesthetics. Illustrated lectures, field trips, student research and reports.

210.25 Printmaking I (1 hour lecture—3 hours studio)
A study of printmaking through print production, making of etchings, aquatints, engravings, dry point etchings and collage prints, emphasis on exploring experimental contemporary developments of these techniques.

210.26 Jewelry Design I (1 hour lecture—3 hours studio)

210.27 Textile Design I (1 hour lecture—3 hours studio)
210.28 Sculpture I (1 hour lecture—3 hours studio)
Fundamental concepts of sculpture. Relationships between volume, texture and positive-negative space. Personal explorations will give substance to student effort to join form, content, and process within a unified sculptural expression.

210.29 Ceramics I (1 hour lecture—3 hours studio)
Brief survey of the evolution of pottery, enabling the student to select and appreciate form, color and decoration. Practical exploration of the properties and possibilities of clay and glazes for use in a personal statement.

210.30 Design I (1 hour lecture—3 hours studio)
Experiments in pictorial organization and expression, ranging from flat pattern to deep space. Sketch and rendering approach to problems in 3D form, including introductory work in functional design.

210.31 Painting I (1 hour lecture—3 hours studio)
Introduction to grounds, pigments, binders, solvents, varnishes and brushes. Study of color, textures, edges and spatial organization in abstract painting. Occasional work from portrait or figure models, still-life or outdoor sketching, Collage and mixed media.

210.32 Painting II (1 hour lecture—3 hours studio)
Prerequisite: Painting I — 210.31 or permission of the instructor
Continuation of Art 210.31, Painting I, with more advanced work in (1) traditional painting from nature; (2) study of 20th Century developments in painting; and (3) original projects.

310.05 Drawing I (1 hour lecture—3 hours studio)
Drawing from observation, memory and invention; study of natural forms, light, perspective, color, gesture, grouping. Experience in both the quick, indicative sketch and the definitive study of structures.

310.06 Drawing II (1 hour lecture—3 hour studio)
Prerequisite: Drawing I — 310.05 or permission of the instructor
Continuation of Drawing I 310.05 with more advanced work using drawing as a means of personal expression. Drawing experiences to include intensified perception of the physical environment and the figure leading towards imaginative and inventive visual statements.

310.10 World Art Forms (3 class hours)
Comparative study of expressive and applied arts in Asia, Africa, Oceania, native cultures of North and South America. Slide lecture, with library research, field trips to museums. Search for cultural similarities and variations. Focus on some universal types of art objects—the coin, religious image, the house, the container, hand tools and weapons, personal jewelry.

310.15 Printmaking II (1 hour lecture—3 hours studio)
Prerequisite: Printmaking I — 210.25 or permission of the instructor
A further study of printmaking through print production. The course will focus on a specialization in one of the printmaking media introduced in Printmaking I (intaglio printing, relief printing, collography, etc. Emphasis placed on exploring a more experimental contemporary application of these techniques.

310.20 Primitive Art (3 class hours)
The traditional arts of primitive peoples will be discussed in terms of their aesthetic qualities in the context of the cultural setting in which they were produced. Illustrated lecture, discussion, research.
210.36 Jewelry Design II (1 hour lecture—3 hours studio)
Prerequisite: Jewelry Design I
Brings together ideas, history, aesthetic principles, design concepts, standards of craftsmanship and the necessary technical information to an art that is an expression of the 20th century. The artist/student will have the necessary freedom to achieve invention and originality in his work.

310.27 Textiles II (1 hour lecture—3 hours studio)
Prerequisite: Textiles I 210.27 or permission of the instructor
Advanced weaves on four-harness and eight-harness looms. Independent research and development of projects through study of the tool, the material and the technique. Brief introduction to calculation and drafting of patterns, dupes for leno weaves and hand spinning and dyeing. Other areas to be explored are macrame, tie-dye, batik, and stitchery.

310.28 Sculpture II (1 hour lecture—3 hours studio)
Prerequisite: Sculpture I 210.28 or permission of the instructor
Exploration of form, ideas, and various media and methods. Attention will be given to oxy-acetylene and other foundry processes; the human figure as subject matter; and the student's personal expression.

310.29 Ceramics II (1 hour lecture—3 hours studio)
Prerequisite: Ceramics I 210.29 or permission of the instructor
Advanced wheel techniques involving the assembling of various forms into a complete sculptural or utilitarian form. A study of design as it pertains to ceramics, through historical and especially contemporary pottery techniques. Introduction to empirical glaze chemistry and calculation by which students will develop their own glazes and clay bodies.

310.30 Design II (1 hour lecture—3 hours studio)
Prerequisite: Design I 210.30 or permission of the instructor
Continued stress on various art concepts through the language of the elements of design. Intensive study of design as concept, expression communication and function in both two and three dimensional forms.

310.34 Functional Design (1 hour lecture—3 hours studio)
Prerequisite: At least two art courses
A lecture-laboratory course in creative problem solving, dealing with such universal design problems as housing, tool-making, toys, musical instruments and the like. Survey of historical cultural forms emphasizing designs aspects of contemporary life; experimental projects in functional design.

310.40 Puppetry—A Creative Approach (1 hour lecture—3 hours studio)
Prerequisite: Permission of the Instructor
Puppetry as an art form. A studio lecture course. Emphasis on the making and manipulation of hand, rod and string puppets. Technical aspects of the production of puppet shows, including creative drama, stage lighting and scene design. Culmination through performances by student groups.

410.10 Art Techniques for Art Education (2 hours lecture—2 hours studio)
Prerequisite: Limited to Senior Art Ed. Majors.
Relates the skills and knowledge developed in college art courses to public school
teaching. A broad range of disciplines, including graphics, sculpture, commercial
design, painting, crafts will be emphasized. Course content may be adjusted to
class needs. Lecture, studio, A-V, field trips.

410.90 Art Seminar (1 hour lecture—2 hours studio)
For senior art majors. Required, not elective.
Research, reports and projects dealing with the practical realities of the field of
art the graduating student is about to enter. Each member of the seminar selects
his area of study and reports to the group. Special emphasis on techniques of ex-
hibition and display, and the production of exhibits in the college gallery.

410.98 Independent Study (½ hour consultation—6 hours independent work)
Prerequisite: Enrollment in the upper division Art Major, two courses in the area
of concentration. Pre-registration with approval of an art faculty sponsor in the
area of concentration, and the department chairman.
Individual, self-guided course of work and study for the advanced student, under
the supervision of a faculty committee. Opportunity to develop personal
interests and strength within the major field.

213.40 Fine Arts and Crafts for the Elementary Grades (4 class hours)
Prerequisite: one art course
Experience in planning, organizing and carrying out a wide variety of art activities
suitable for use with children. The elementary teacher’s role in the creative process
understanding child growth and development through art.

313.04 Teaching Art in the Elementary Grades (2 class hours)
Prerequisite: One Art Course
The teacher in the creative activity program. Contribution of arts to school and com-
community. Understanding child growth and development through art. Selection and
organization of art media for use in the classroom. Application of art experiences
to the classroom situation in grades kindergarten through six.

313.15 Fine Arts and Crafts in Early Childhood Education (4 class hours)
Prerequisite: One Art Course
Experience in planning, organizing and carrying out a wide variety of art activities
suitable for use with young children. The primary teacher’s role in the creative pro-
cess. Understanding child growth and development through art.

313.84 Principles, Practices and Materials in Art Education (1 hour lecture—2
hours studio, 3 hours Sat. morning Lab.)
Study and studio activities to develop knowledge and skills applicable to the ele-
mentary and secondary classroom. Relationship of child growth to art, individual
readiness, processes and materials, literature of the field, lesson, unit and cur-
rriculum planning in art for grades kindergarten through twelfth. Saturday morning
participation in college—community program.

413.01 Student Teaching in Art (Full time—1 semester)
Prerequisite: Meeting of all criteria for admission to student teaching.
A full semester of student teaching participation at both the elementary and sec-
ondary grade levels during the senior year. A two week seminar will be conducted
at the college between situations. Observation, participation and responsible teach-
ing will be experienced under the direct supervision of public school teachers under
the general supervision of the college supervisors.
Interaction in the Arts (4 class and studio hours)

Introductory course in four arts: art, dance, music, and theatre, their forms, history, vocabulary, and basic principles. Designed to develop understanding of each art's unique elements and awareness of the interrelationships among these art forms, study of theory, critical analysis of performance, and the student's original expression. Films, guest lecturers, field trips to museums, theatres, cultural centers. May be applied toward humanities requirements on completion of both semesters in sequence beginning with the fall semester. Fall semester alone may be applied to electives. Not offered 1971-72.

BIOLOGY

Professors: Eble, Chairman; Vena
Associate Professors: Rockel, Treuting
Assistant Professors: Hager, Heck, Kohl, Lipton, Star
Instructors: Rose

The objectives of the department are to develop an understanding of biological principles which underlie all living things and to instill a sense of inquiry in the student.

There are two programs of study in Biology. The liberal arts program prepares the student for professions (medical, dental, etc.) and graduate school. The teacher-preparation program equips the student with the essential knowledge and skills to enable him to enter the teaching profession on the secondary level. In both programs, it is strongly recommended that the student elect those courses which will satisfy the demands of his chosen profession.

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<tr>
<td>133.30-31</td>
<td>General Chemistry</td>
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<td>232.12-13</td>
<td>General Biology</td>
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<td>Arts &amp; Humanities **</td>
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Freshman Year

Sophomore Year

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<tbody>
<tr>
<td>232.28</td>
<td>Ecology &amp; Field Biology</td>
<td>3</td>
<td>121.25-26</td>
<td>Introduction to Calculus I &amp;II</td>
<td>6</td>
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<tr>
<td>332.20</td>
<td>Genetics</td>
<td>3</td>
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<td>333.07-08</td>
<td>Organic Chemistry</td>
<td>8</td>
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Junior Year

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<td></td>
<td>History &amp; Social Sciences</td>
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<td>Total for Year</td>
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</table>

Senior Year

Teacher education students will select in their junior year Development of Educational Thought, Educational Psychology, Contemporary Health Problems, Methods of Teaching High School Science and Junior Professional Experience. In the senior year the student will select Student Teaching and Teacher in the School and Community.

# Minor in Biology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>232.12-13</td>
<td>General Biology</td>
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<tr>
<td>232.16</td>
<td>Human Anatomy and Physiology I</td>
<td>3</td>
</tr>
<tr>
<td>232.17</td>
<td>Human Anatomy and Physiology II</td>
<td>3</td>
</tr>
<tr>
<td>232.28</td>
<td>Ecology and Field Biology</td>
<td>3</td>
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</table>

For a second teaching field:

<table>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>313.64</td>
<td>Methods of Teaching High School Science, (2 s.h.)</td>
<td></td>
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</tbody>
</table>

## 132.15-16  Principles of Biology (2 class hours and 2 laboratory hours)
Restriction: This course must not be taken by biology majors without permission from the chairman of the biology department.
Introduction to the major principles of biology as they relate to man. Consideration given to fundamental properties of living things, their function, structure, classification, life histories and evolution. Emphasis placed upon identification and study of organisms in their natural environment, and upon their inter-relationship with one another.

## 232.12-13  General Biology (2 class hours and 4 laboratory hours)
This one-year course is designed for students continuing in the sciences. In lectures an attempt is made to present a unified approach, beginning with elementary particles and working up through higher levels of plant and animal organization.

## 232.16  Human Anatomy and Physiology I (3 class hours and 2 laboratory hours)
Prerequisite: General Biology
A study of the anatomy and physiology of the human body designed to provide a working knowledge of the structure and function of the body. The relation of structure to function and of physiological processes to health and disease is emphasized. Laboratory experiences include dissection of the cat and various opportunities for the student to make quantitative studies of the physiological processes taking place in the human body.

## 232.17  Human Anatomy and Physiology II (2 class hours and 2 laboratory hours)
Continuation of 232.16

## 232.26  Cytology (2 class hours and 2 laboratory hours)
Prerequisite: General Biology
A study of structure and function at the cell and tissue level with laboratory training in microscopic, cytological, and histological techniques.

## 232.28  Ecology and Field Biology (1 class hour and 4 laboratory hours)
Prerequisite: General Biology
Introduction to basic ecological principles, combined with practical emphasis on human living organisms and their interrelationships with their environment. Emphasis on field work, and studies made in a diversity of habitats including barrens, beaches, bogs, and deciduous forest land. Opportunity for original ecological research work.
332.02 Structure of Vascular Plants (3 class hours and 3 laboratory hours)
Prerequisite: General Biology
A phylogenetic survey of vascular plants emphasizing evolutionary patterns of development in vegetative and reproductive organs.

332.05 Biology of the Invertebrates (3 class hours and 3 laboratory hours)
Prerequisite: General Biology
A detailed consideration of the functional morphology and evolution of the animal phyla from the protozoa through the protochordates. Adaptive radiation within the major groups is discussed and the interrelationships of the various phyla are analyzed. The laboratory experience encourages individual investigations of representative animals.

332.20 Genetics (2 class hours and 2 laboratory hours)
Prerequisite: General Biology
Introduction to the major concepts of heredity; reproduction, variations; the nature, distribution, and expression of heredity factors in representative plants and animals; the interaction of heredity and environment; gene action. Laboratory will stress Drosophila genetics.

332.25 General Entomology (3 class hours and 2 laboratory hours)
Prerequisite: General Biology
Emphasis will be placed on the biology, anatomy, taxonomy and economic importance of insects. Several field trips will allow biological studies as well as collection of indigenous species. Laboratory meetings will compliment materials discussed during lecture.

332.32 Microbiology (2 class hours and 2 laboratory hours)
Prerequisite: General Biology
Fundamental concepts in the field of microbiology and the relationship of microorganisms to disease and the balance of nature. Emphasis in laboratory on the physiology of bacteria, preparation and use of selective and differential media and related methodology.

332.36 Bacteriology (2 lecture and 4 laboratory hours)
Prerequisite: General Biology and General Chemistry
A study of the morphology and physiology of bacteria. The application of bacteriology in industry, food science, agriculture, sanitation, pollution, and medicine is introduced. Laboratory exercises include the cultivation, isolation, and identification of bacteria.

432.06 Developmental Biology (2 class hours and 2 laboratory hours)
Prerequisite: General Biology
An analysis of the anatomical, biochemical and physiological problems related to the development of an organism. A study of the progressive changes which result in an increase in level of complexity of unicellular, colonial and multicellular organisms.

432.07 Plant Physiology (2 class hours and 2 laboratory hours)
Prerequisite: General Biology
Introduction to the major concepts of plant physiology; growth, development and how they function. Emphasis will be on the examination of these aspects in vascular plants and to lesser extent contrasting them with non-vascular plants.

432.08 Systematics and Evolution (2 class hours and 2 laboratory hours)
Prerequisite: General Biology
The general principles of systematics of all life forms will be used as a basis in the
description, classification, and naming of living organisms. Special attention will be given to showing the relationships among and within groups of organisms. The developmental patterns inherent in closely related groups of organisms will be considered in such a manner as to illustrate and highlight their evolutionary relationships. Plant and animal adaptations will be considered as the primary evolutionary mechanism operating the overall evolutionary development of groups or organisms.

432.09  Biological Seminar  (2 class hours)

Approval of Instructor.

The seminar will be conducted by a single staff member who will be responsible, in addition to the general administration of the course, for recruiting various other staff to participate in single meetings when topics relating to their specialties and/or interests are to be discussed. Each class will consist of a student presentation on a pre-arranged topic followed by a roundtable discussion involving all seminar participants, faculty and students alike. Topics will be assigned by the staff member in charge as far in advance of the presentation as possible and only after consultation with the student. The topics chosen in any given year, thus will represent not only the judgment of the professor in charge but also the special interests and capabilities of the student. Enrollment in the course should not exceed fifteen.

432.11  Vertebrate Biology (2 class hours and 2 laboratory hours)

Prerequisite: General Biology

Acquaints the student with the comparative anatomy and systematics of the vertebrates by studying the evolutionary development from fish to mammals. Functions of anatomical parts will be considered in the major vertebrate groups to show how the organisms are adapted to preferred habitats. Distribution, territory and home range and populations movements will be briefly reviewed, but major emphasis will be on vertebrate population dynamics. Some attention will be given to dormancy, reproduction, growth and development in the vertebrate classes.

432.12  General Physiology  (2 class hours and 2 laboratory hours)

Prerequisite: General Biology

A study of the physiological processes of living organisms to provide a working knowledge of the functioning of the organism as a whole. Application of physiological processes to daily life and the relationship of these processes to health and disease in both plants and animals. Laboratory work provides the opportunity for understanding the methods used and basic concepts involved in physiological investigations.

432.98  Independent Study in Biology

Approval of Instructor

435.01  Honors Quarter

Approval of Instructor

A student who has maintained a superior academic record during the first three years of his college career may be invited to participate in an Honors Quarter during his senior year. Each student will devote the entire nine-week period to independent study. The Honors Quarter Study will provide the student with five semester hour credits. Credit in the other required courses may be secured by taking the courses during other semesters and/or by means of equivalency examinations. Any student who is in his junior year and who is interested in such a program should talk to the chairman of his department.

313.64  Methods of Teaching High School Science (2 class hours)

Prerequisite: General Biology

Review of some modern tendencies in content, methods, techniques, organization, and philosophy of science education directed toward the junior and senior high
school level. Opportunity is given for discussion of student's problems and for specific aid in preparing for the period of student teaching.

**BLACK STUDIES**

The Black Studies minor consists of the following:

<table>
<thead>
<tr>
<th>Sem.</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td></td>
<td>214.21</td>
<td>Afro-American Literature</td>
<td>3</td>
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<tr>
<td></td>
<td>118.25</td>
<td>Afro-American History</td>
<td>3</td>
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<tr>
<td></td>
<td>310.20</td>
<td>Primitive Art</td>
<td>3</td>
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<td></td>
<td>325.22</td>
<td>Psychology of the Black Experience</td>
<td>3</td>
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<td></td>
<td>327.15</td>
<td>American Minority Groups</td>
<td>3</td>
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<tr>
<td></td>
<td>413.75</td>
<td>Modern Negro Life and Educational Implications</td>
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**CHEMISTRY**

*Professors: Nechamkin, Chairman; Goodkin
Associate Professors: Lutz
Assistant Professors: Aagaard, Adler, P. Cohen, Keller, E. Smith*

The programs offered by the Chemistry Department prepare students for careers in chemical industry, research and/or teaching as well as for further study in medicine, dentistry, and graduate school. Careful selection of courses with advisement by the department is recommended in order that the student is prepared for his chosen professional goals.

**Freshman Year**

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<thead>
<tr>
<th>Course No.</th>
<th>Sem. No.</th>
<th>Course Title</th>
<th>Hrs.</th>
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<tr>
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<td>114.20</td>
<td>English I</td>
<td>3</td>
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<td>134.17</td>
<td>Intermediate Composition</td>
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<td></td>
<td>113.30-31</td>
<td>History or Social Sciences</td>
<td>6</td>
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<tr>
<td></td>
<td>133.21-22</td>
<td>Gen. Chem. I and II</td>
<td>7</td>
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<td>121.25-26</td>
<td>Intro. to Calculus I and II</td>
<td>6</td>
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**Sophommore Year**

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<th>Sem. No.</th>
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<tr>
<td>233.21-22</td>
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<td>Phys. Chem. I and II</td>
<td>3</td>
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<tr>
<td>134.18</td>
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<td>Gen. Phys. II</td>
<td>3</td>
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<td>3</td>
<td>History or Social Sciences</td>
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Junior Year

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<tr>
<td>333.03-04</td>
<td>Org. Chem. I and II</td>
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<td>333.13</td>
<td>Anal. Chem.</td>
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Electives ........................................ 19
Total for Year ..................................... 32

Senior Year

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<tr>
<th>Course No.</th>
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<tr>
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<td>Electives</td>
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<td></td>
<td>Chem. Laboratory Course.</td>
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<tr>
<td></td>
<td>Chem. Laboratory Course.</td>
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</tr>
<tr>
<td>433.41</td>
<td>Inorg. Chem.</td>
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</table>

History or Social Sciences ... 3
Arts or Humanities .......... 3
Electives ...................... 15
Total for Year ................ 30

Teacher education students will select in their junior year Development of Educational Thought, Educational Psychology, Contemporary Health Problems, Methods of Teaching Science and Junior Professional Experience; in the senior year the student will select Student Teaching and Teacher in the School and Community.

Minor In Chemistry

21 Semester hours of Chemistry Courses

133.03-04  Principles of Chemistry (2 class and 2 laboratory hours each semester)
A study of chemistry as a vital science in our culture. The development of modern chemical concepts such as kinetic theory, atomic structure and equilibrium and their importance as related to other sciences and areas of learning. A study of the periodic table using representative elements and relating structure to properties. Organic and biochemistry are introduced. Laboratory experiments are largely quantitative experiments coordinated with the lecture work. Students majoring in the Sciences, Nursing, Health or Mathematics should take 133.30-31, not 133.03-04.

133.11-12  Environmental Chemistry (3 class hours each semester)
A study of current environmental problems and the way in which chemistry helps to create them. How chemistry can be used to avoid and also to aid in the solution of these problems.
CURRICULA

133.20  Geology (2 class and 2 laboratory hours)
Designed to help the student recognize and interpret major geological features of the landscape. Attention given to the interplay of the physical processes that have produced the present forms of land. Brief survey of the development of continents during successive geological periods, together with the succession of plant and animal life on earth. Study of rock and mineral specimens, maps, cross sections, fossils, and field trips as part of the laboratory experiences.

133.30-31  General Chemistry (133.30: 3 class and 2 laboratory hours; 4 s.h.; 133.31: 2 class and 2 laboratory hours; 3 s.h.)
A presentation of the laws and principles that describe the behavior of matter in its various states and the energy relationships among them. Nuclear, atomic, and molecular structure are considered from the aspects of quantum and orbital theory. Descriptive chemistry is approached as it is related to the structural principles. Kinetics and equilibrium are presented from a thermodynamic point of view. Organic and biochemistry are introduced. Laboratory experiments are largely quantitative experiments coordinated with the lecture work. This course is designed for majors in Sciences, Health and Nursing.

133.40  Growth of Scientific Ideas I (2 class and 2 laboratory hours)
A presentation of the interaction of science and society from the dawn of man up to the period of the Renaissance. The early science of the Ancient Babylonians, Egyptians, Greeks and Romans is studied. This is followed by an examination of the role of the Arab civilization during the Dark and Middle Ages.

133.41  Growth of Scientific Ideas II (2 class and 2 laboratory hours)
A study of science and society from the Renaissance to the present era. Particularly stressed are the works of Galileo and Newton as the builders of the background to modern developments in biology, medicine, physics and astronomy. The fundamental aspects of evolution, genetics, relativity and atomic energy are among the topics considered.

233.17  Nuclear and Radiochemistry (2 class and 4 laboratory hours)
Prerequisites: Chemistry 133.30-31 or 133.03-04, Physics 134.17-18, Math 6 s.h.
Introduction to nuclear science relating to chemistry. Radioactivity, chemistry of radionuclides and their applications, radiation detection and measurement, nuclear structure and reactions.

233.20  Qualitative Analysis (1 class and 4 laboratory hours)
Prerequisite: Chemistry 133.30-31 or 133.03-04
Principles and practices of the qualitative analytical procedures for common cations and anions.

233.21-22  Physical Chemistry (3 class hours each semester)
Prerequisites: General Chemistry (133.30-31) or Principles of Chemistry (133.03-04) and Analytical Geometry and Calculus.
A course in the study of the fundamental laws of physics and chemistry to include thermodynamics, kinetics, the structure of atoms and molecules, and the behavior of matter in the solid, liquid and gaseous state.

233.31  Chemistry for Electronics Technology (1 class and 4 laboratory hours)
Prerequisite: Chemistry 133.30-31 or 133.03-04
A laboratory oriented study of the group project approach to industrial research chemistry, with particular emphasis on those aspects of chemistry applicable to the electronics oriented technicians. The course is designed so that the laboratory problems lead the lecture. Frequent discussions of project problems, with student evaluations emphasized, will be conducted during the term.

233.40  Physical Chemistry Laboratory (6 laboratory hours)
Prerequisites: General Chemistry (133.30-31) and General Physics (234.17-18)
Physical Chemistry (233.22) may be corequisite or prerequisite.
Experiments in general physical and theoretical chemistry including the following:
kinetic theory, equilibria, solutions, ionization, reaction rates, and selected topics from thermodynamics and electrochemistry.

333.01 Organic Chemistry (2 class and 2 laboratory hours)
Restriction: This course is designed for Nursing Students and is not open to students who are majoring or minoring in chemistry.
Prerequisite: General Chemistry (133.30-31) or Principles of Chemistry (133.03-04).

Introduction to the carbon compounds, including a systematic study of the principal aliphatic series, aromatic compounds and other selected classes. Emphasis on fundamental organic chemistry essential to an understanding of living processes and an appreciation of organic chemistry in modern life.

333.03-04 Organic Chemistry (3 class and 4 laboratory hours each semester)
Restriction: This course is designed for Chemistry Majors.
Prerequisite: General Chemistry (133.30-31) or Principles of Chemistry (133.03-04)

The fundamentals of organic chemistry, emphasis on the mechanisms by which organic reactions take place. Theoretical and descriptive material as related to the chemistry of the aliphatic, alicyclic, aromatic and heterocyclic compounds is presented.

333.05 History of Chemistry (3 class hours)
Prerequisites: Chemistry 133.30-31 or 133.03-04.
A course in the historical development of chemistry to include the foundations of chemistry, the period of fundamental theories and the growth of specialization.

333.07-08 Organic Chemistry (2 class hours and 4 laboratory hours each semester)
For Biology majors. The fundamentals of organic chemistry, emphasis on the mechanisms by which organic reactions take place. Theoretical and descriptive material as related to the chemistry of the aliphatic, alicyclic, aromatic and heterocyclic compounds is presented.

333.13 Analytical Chemistry (2 class and 4 laboratory hours)
Prerequisite: General Chemistry (133.30-31) or Principles of Chemistry (133.03-04) and the first semester of Physical Chemistry (233.21).
A course in analytical chemistry providing for a thorough treatment of the fundamental principles upon which the subject is based, with emphasis on the important instrumental procedures, the reagents, and practices used in inorganic analysis.

333.20 Chemical Application of Group Theory (3 class hours)
Prerequisite: 233.22 Physical Chemistry
The fundamentals of group theory, emphasis on application in Infrared Spectroscopy, Crystallographic Space and Molecular Point Groups.

433.16 Qualitative Organic Analysis (2 class and 4 laboratory hours)
Prerequisites: Chemistry 333.03-04
Introduction to the analysis of organic compounds, including a systematic study of the series. Emphasis is placed on the fundamental organic chemistry essential to developing and carrying through organic analyses.

433.20 Advanced Organic Chemistry (2 class and 4 laboratory hours)
Prerequisites: Chemistry 333.03-04
A systematic study of organic reactions with emphasis on the mechanism and kinetics.

433.22 Biological Chemistry (2 class and 4 laboratory hours)
Prerequisites: Chemistry 333.03-04 and Physics 134.18
A presentation of the fundamental principles of chemistry as they apply to biological and physiological processes.
433.30 Electrochemistry (2 class and 4 lab hours)

Prerequisite: Chemistry 233.21-22

A consideration of chemical reaction from an electron transfer viewpoint. A study of electrolyte and electrode kinetics and thermodynamics. The course considers chemical reactions in terms of coulombic energy transfers, and its application to corrosion, oxidation-reduction synthesis, plating, and electrochemical energy production. The laboratory involves individual experiments on batteries, plating, metal winning, corrosion, electroorganic synthesis, and redox reactions in non-aqueous media.

433.34 Advanced Topics in Chemistry (hours to be arranged)

Designed specifically for students working for the Liberal Arts degree with a major in chemistry. The course will vary from semester to semester and will draw from the staff and guest lecturers for the special topics to be presented.

433.41 Inorganic Chemistry (3 class hours)

Prerequisite: Physical Chemistry (233.21-22)

A study of the modern structural concepts of inorganic chemistry coupled with recent interpretations of inorganic reaction mechanisms.

313.49 Methods of Teaching High School Chemistry (1 class and 2 laboratory hours)

Prerequisite: A major or minor in chemistry in progress or completed co-or pre-registration in appropriate Education courses or approval of instructor.

A brief review of modern trends in content, methods, techniques, and philosophy of chemical education directed towards the junior and senior high school level. Major emphasis on current chemistry curricula in practice. Opportunity is given for discussion of students' problems and for specific aid in preparing for the period of student teaching.

CLASSICAL STUDIES

Minor

This is a new experimental minor which is open to all students. It has no prerequisites and is designed to arouse an interest in the classical world of Greece and Rome. Some students may wish to take only one course; others may wish to take several with a view toward achieving an undergraduate minor in classical studies. There is no course sequence which must be followed.

The requirements for a minor are eighteen hours from any of the following courses which are now being offered by various departments:

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<tr>
<th>Sem. Hrs.</th>
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<tr>
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<td>Hellenistic Civilization</td>
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<td>3</td>
<td>The Roman Republic</td>
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<td>The Roman Empire</td>
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<td>3</td>
<td>Ancient Philosophy</td>
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<td>3</td>
<td>Homer and the Greek Lyric</td>
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<td>3</td>
<td>Ancient Greek Drama</td>
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</tbody>
</table>

Administrative chairman of the program is Professor Ward. Advisers to the program are Professors Gotthelf, Karras, and Ward. Upon completion, certification for a minor will be made by the faculty members concerned with the program to the Office of Academic Advisement.
The goal of the Department of Criminal Justice is to meet the need to improve the criminal justice system (police, courts, corrections) through upgrading the professionalism of personnel employed in the system, and through developing and motivating a reservoir of new professionals who wish to enter the criminal justice field. The Department will provide a four-year academic program in criminal justice serving both preservice and inservice students, part-time and full-time, on a dual track basis, i.e. the same courses being offered both during the day and in the evening. Students will be oriented to the law enforcement disciplines at the local, State and Federal levels; to local, State and Federal corrections; to criminal law, including prosecution and defense; to court administration and management; to criminal justice research and planning; and to training and education in the criminal justice field.

The program is being designed to accommodate transfer students from two-year college programs as well as four-year students attending Trenton State College. All preservice four-year students are required to participate in a criminal justice internship program which consists of spending a summer working in a major State criminal justice agency.

Suggested Yearly Pattern In Criminal Justice (Police Science)

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<td>Problems of Urbanization</td>
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<td>Sociology of Anti-Social Behavior</td>
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* Suggested but not required. All students must complete a minimum of 24 s.h. in Criminal Justice.

** Transfer students must complete a minimum of 6 s.h. of courses in Criminal Justice at Trenton State College.
# Suggested Yearly Pattern in Criminal Justice (Corrections)

## First Year

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## Second Year

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<td>History and Social Science</td>
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## Third Year

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<td>365.25</td>
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## Fourth Year

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<tbody>
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<td>465.10</td>
<td>Seminar in Criminal Justice</td>
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</table>

## Notes

- Suggested but not required. All students must complete a minimum of 24 s.h. in Criminal Justice.
- Transfer students must complete a minimum of 6 s.h. of courses in Criminal Justice at Trenton State College.

### 165.05 Administration of Justice

An overview of the criminal justice system including the criminal justice process from detection of crime and arrest of suspects through prosecution, adjudication, sentencing and imprisonment to release and revocation. Introduction to agencies involved in the administration of criminal justice, and analysis of the policies and practices of these agencies in the criminal justice process. Career orientation in the criminal justice field.
265.05 **Introduction to Law Enforcement**
The history, development and philosophy of law enforcement in a democratic society, including the interrelationships of law enforcement with customs, mores and norms in controlling human behavior. Survey of local, State and Federal law enforcement agencies, their role, history and development within the system of criminal justice.

265.10 **Police Administration and Organization**
Principles of organization and management in the law enforcement field. Introduction to concepts of organizational behavior as applied to complex organizations. The utilization of planning, research and systems analysis as aids in police administration.

265.15 **History and Philosophy of Corrections**
Theory and practice of correctional institutions and their functions. The relationships of culture and corrections, including the impact of a particular society upon correctional policy with regard to rehabilitation and punishment. Attention given to the historical development and underlying philosophy of approaches used in the care and treatment of both adult and juvenile offenders.

265.20 **Correctional Institution Management**
Principles of organization and management in correctional administration. Introduction to concepts of organizational behavior as applied to complex organizations. The utilization of planning, research and systems analysis in correctional administration.

365.05 **Criminal Evidence and Procedure**
A comprehensive analysis of the rules of evidence as applied to evidence in criminal cases. Development and current status of constitutional doctrine as a series of controls on the administration of criminal justice; the effect of the due process clause of the Fourteenth Amendment on the application of the Bill of Rights to the states through a study of the leading Supreme Court decisions.

365.10 **Criminology**
The nature and causes of crime and criminal behavior, and the characteristics of offenders. The interaction between crime and society. Although primarily theoretical in nature, the course will attempt to apply the basic concepts and theories of criminology, combined with data and information from criminological research, to current problems in preventing and controlling crime.

365.15 **Juvenile Delinquency**
The nature and causes of juvenile delinquency, including psychological and sociological factors, and the characteristics and typologies of youthful offenders. A survey of concepts and theories of delinquency related to modern trends in prevention, control and treatment.

365.20 **Institutional Treatment of the Offender**
Introduction to the principles and practices of treatment accorded to offenders in various types of correctional institutions. Problems of rehabilitation in institutional settings. The impact of institutionalization on both the adult and juvenile offender. Analysis of specific treatment and rehabilitation practices attempted with various types of offenders.

365.25 **Community Supervision and Treatment of the Offender**
Analysis of theories and practices of probation and parole, including administrative organization and management in probation and parole systems; responses of paroling authorities to public pressures and court controls and their implications for rehabilitative efforts. Analysis of efforts to create admixtures of institutional settings and normal community life; feasibility and effectiveness of treatment of individuals released to the community. Special problems, referrals and revocations.
365.30 The Police and the Community
A comprehensive analysis of those aspects of law, ethics and custom which affect
and determine the relationships between the police and the policed. Particular
attention is paid to police-minority group relations, police-juvenile relations, com­
umbling relations programs, police personnel considerations, police contracts with
citizens, and the grievances of citizens.

465.15 Independent Study in Criminal Justice
For advanced students who wish to pursue a special area of interest in Criminal
Justice. Students will be expected to develop a proposal around a sophisticated
research design, including problem definition, hypotheses, methodology, etc., and
to complete a comprehensive, in depth study. The area selected and the research
design used will be developed in close consultation with a faculty advisor.

The following courses will not be offered in 1971-72:
465.05 Criminal Law, 465.10 Seminar In Criminal Justice.

ECONOMICS

Assistant Professors: Hinck, Katz
Instructor: Chae

112.05 Principles of Economics I (3 class hours)
Macro-economics: A study of the facets underlying economic growth and determin­
ing the aggregate levels of employment, prices, and income. Federal Reserve
policy, counter-cyclical measures and international trade relations are examined.

112.06 Principles of Economics II (3 class hours)
Prerequisite: 112.05
Micro-economics: The theory of pricing and distribution under various market
conditions. Government intervention in the market. Comparison of free enterprise
with alternative, existing economic systems.

112.09 Applied Economic Statistics (3 class hours)
Prerequisite: 112.05
An introduction to statistical methods and statistical reasoning. The nature and
scope of statistical reasoning. The nature and scope of statistical inquiries, col­
lection and presentation of data. Descriptive methods with particular reference to
frequency distribution, correlation, index numbers, and time series analysis. Ele­
ments of probability, sampling methods, sampling error, principles of estimation
and tests of hypotheses.

112.11 Public Finance (3 class hours)
Prerequisite: 112.05
Fundamental principles of public finance; government expenditures; revenue;
financial policies and administration; taxation; principles of shifting and incidence
of taxation; public debts and the budget; fiscal problems of federal, state, and local
government; the relation of government finance to the economy.

112.13 Introduction to Mathematics for Economists
Prerequisite: 112.05 and 112.06 or instructor’s permission
The development of fundamental mathematical concepts and techniques applica­
tible to economics (analysis) and business. The rudiments of calculus and related
topics, with some of their application to economic theory.

212.12 Money and Banking (3 class hours)
Prerequisite: 112.05
An analysis of the organization and operation of our financial system, both public
and private; the money and capital markets, commercial banking, investment
banking, other financial institutions, central banking, and banking policy; the re­
lationship between financial and economic activity, including monetary and fiscal
policy.
212.14 Trade Unionism in the United States (3 class hours)
Prerequisite: 112.05
An evolutionary approach to the economics of trade unionism in the United States. The labor organizations and the labor movement in the country, together with a detailed analysis of policies, methods, and procedures employed in trade union activity.

212.16 Economic Development (3 class hours)
Prerequisite: 112.05
The determinants of economic growth. Planning and other policies to encourage growth in underdeveloped countries.

212.18 International Trade (3 class hours)
Prerequisite: 112.05
Theory of international trade; terms of trade; analysis of commercial policies. GATT, the Common Market, the balance of payment, foreign exchange markets, exchange rates, the gold standard, exchange controls, devaluation, free exchange rates, proposals for the international monetary system.

212.20 The Economics of Poverty (3 class hours)
Prerequisite: 112.05
An empirical and theoretical analysis of the problems and causes of poverty in the United States.

312.05 American Economic Growth (3 class hours)
Prerequisite: 112.05
A study of the underlying factors contributing to the economic development and growth of the nation including the evolution of agriculture, industry, transportation, commerce, labor, banking and other major topics.

312.08 European Economic Development (3 class hours)
Prerequisite: 112.05
Survey of the evolution of the economic systems of Europe beginning with the Manorial economic system, and the evolution of capitalism to modern times. More recent economic developments are covered including the Common Market, the Schuman Plan, and the current trend toward European economic integration.

312.12 Income and Employment (3 class hours)
Prerequisite: 112.05
An introduction to the study of aggregate economic analysis including determinants of gross national product, growth and stability of national income, and national accounting systems.

312.14 Price Theory (3 class hours)
Prerequisite: 112.05 and 112.06 or permission of instructor
An analysis of the production function which underlies the price system, pricing and output policies of firms, factor pricing and distribution under various market structures.

312.16 Comparative Economic Systems (3 class hours)
Prerequisite: 112.05 or permission of instructor
A comparative study of theoretical and operational models of industrial capitalism, socialism, syndicalism, corporation, and communism. Special emphasis is given to the economic systems of the United States, Great Britain, the Soviet Union, and Scandinavian countries.

321.18 Government and the Economy (3 class hours)
Prerequisite: 112.05
The nature of competition in the United States; price support policies, especially in agriculture; regulation of public utilities; railroad, radio, and television; anti-trust policy; the structure and performance of some major industries.
312.20 Labor Economics (3 class hours)
Prerequisite: 112.05
A survey of labor resources; their utilization, allocation, and compensation. Unionism, government regulation, and other factors affecting labor resources will also be examined.

312.24 Business Cycles (3 class hours)
Prerequisite: 112.05
The purpose of this course is to acquaint the student with causes both monetary and physical for possible fluctuations in the economy and to provide the student with tools to analyze the causes and cures for such fluctuations.

412.05 History of Economic Thought I (3 class hours)
Prerequisite: 112.05
The growth and refinement of economic ideas from the early Greeks to the end of the 19th century. The English classical doctrines and divergent schools of thought.

412.06 History of Economic Thought II (3 class hours)
Prerequisite: 112.05, History of Economic Thought I
The course surveys economic thought from Karl Marx to modern writers, as outlined. Emphasis is upon "classical economics" in the broad sense of that term. Only passing attention is given to economic thought before the Mercantilists, to the Historical schools, the non-Marxian socialists or the modern Institutionals.

412.08 Seminar in Economics (3 class hours)
Only for seniors or Economic Majors
Small classes that focus on developing the student's ability for original research and analysis in the overall field of economics.

412.10 Seminar in International Trade and Development
Prerequisite: International Economic or Economic Growth
Theoretical and empirical studies on economic growth and international trade. Economic development policies and the role of private and public international investment in economic growth. Specific development problems of various under-developed areas and comparative growth patterns.

412.12 Seminar in Labor Economics and Human Resources
Prerequisite: 312.20 Labor Economics and the instructor's permission
Analysis of selected problems involving labor supply and demand, mobility and remuneration. Labor unions and the functioning of labor markets; the economic effects of education and other investment in human capital; labor force participation; unemployment; migration; the allocation of time; and population problems.

BUSINESS

Professors: Everard, Hantjis, Chairman
Associate Professors: Gaston, Kingston
Assistant Professors: DiFrancesco, Robinson, Shenker, Sherrer
Instructors: Cicchetti, Daubert, Duffy

The Department of Business offers degree programs with majors in Business Education, Distributive Education, and Business Administration.

Business Administration

The Business Administration program builds on arts and sciences and a core of required subjects in business. Students may specialize in either Accounting, General Business Administration, or Marketing.
## Business Administration — Accounting Emphasis

### First Year

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**Total for Year**

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**Notes:**
- The Department strongly advises that courses in sociology and psychology be scheduled.
- See page 30 for swimming requirement.

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## Business Administration — General Business Administration Emphasis

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See Page 30 for swimming requirement.

The Department strongly advises that courses in sociology and psychology be scheduled.

See Page 65 for list of General Business options.

### Business Administration — Marketing Emphasis

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*See Page 30 for swimming requirement.

**The Department strongly advises that courses in sociology and psychology be scheduled.

***See Page 65 for list of General Business options.
Business Education

The teaching candidate may seek certification in: (1) Accounting and General Business subjects only, (2) Secretarial and General Business subjects only, or (3) comprehensive certification in Secretarial, Accounting, and General Business.

Accounting and General Business Major

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During the summer between the second and third or third and fourth years each student is assigned to work experience under college supervision in a business office. This is credited for state certification but not for the degree.

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*See Page 20 for swimming requirement.
Secretarial and General Business Major

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*See Page 30 for swimming requirement.

**Distributive Education**

The Distributive Education program leads to certification in Distributive Education and General Business subjects.
### First Year*

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*See Page 30 for swimming requirements.

### Second Teaching Fields in Business Education

**Business Education — Secretarial Studies**

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<th>Course No.</th>
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<tr>
<td>111.01 Typewriting I</td>
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<td>111.10 Stenography I</td>
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<tr>
<td>211.11 Stenography II</td>
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<tr>
<td>313.32 Typewriting Methods</td>
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<tr>
<td>313.28 Secretarial Methods</td>
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<tr>
<td>311.01 Clerical Office Practice</td>
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<tr>
<td>311.02 Secretarial Office Practice</td>
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<tr>
<td>311.16 Transcription</td>
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*A Distributive Education second teaching field is also available. See Business Department for details.
Business Education — Accounting

111.01 Typewriting I .................................................. 2
211.05 Accounting Principles I .................................. 3
211.06 Accounting Principles II ................................. 3
311.10 Intermediate Accounting I .............................. 3
313.30 Bookkeeping Methods ..................................... 2
411.10 Income Tax Accounting .................................. 3
311.05 Business Law I ............................................. 3

(Effective after July 1, 1973, a course in Data Processing will be required.)

Comprehensive Certification

If a student wishes Comprehensive Certification in Business Education he should schedule the Secretarial and General Business program plus the following courses:

- Accounting Principles II
- Intermediate Accounting I
- Bookkeeping Methods

Accounting Principles I and II should be scheduled during the sophomore year. The student seeking Comprehensive Certification could complete his program in 124 semester hours if he uses his electives to meet business course requirements.

Typewriting Certification

The Department recommends that all prospective business education teachers become certified to teach typewriting. The students who follow the Secretarial and General Business program or the Comprehensive Certification program will automatically become certified to teach typewriting. The students in the Accounting and General Business program can become certified in typewriting by scheduling 111.05, Typewriting I, and 313.32, Typewriting Methods from their electives.

Data Processing Certification

Certification in the teaching of data processing subjects can be achieved by completing: (1) six semester-hour credits in data processing courses; (2) three semester-hour credits in accounting; and (3) three semester-hour credits in general business subjects.

Work Experience Requirement

In order to receive teaching certification at the time of graduation each student in the Business Education program must work in a business office for ten weeks between his sophomore and junior years or between the junior and senior years. Credit is granted for state certification, but not toward graduation.

Department of Business

(Summary of Courses by Subject Area)

A. GENERAL BUSINESS COURSES

211.14 Introduction to Business
211.16 Business Communications
311.03 Management Principles
311.04 Small Business Management
311.05 Business Law I
311.06 Business Law II
311.09 Business Statistics
311.13 Introduction to Insurance
311.14 Principles of Real Estate
311.20 Consumer Education
311.26 Introduction to Data Processing
311.27 Punch Card Data Processing I
311.28 Punch Card Data Processing II
311.29 Programming for Business Applications I
311.30 Programming for Business Applications II
411.04 Finance
411.08 Office Management
411.09 Personnel Administration
411.11 Public Relations in Business
411.12 Corporate and Partnership Law
411.14 Public Policy

B. MARKETING COURSES

211.20 Marketing I
211.21 Marketing II
311.17 Salesmanship
311.18 Retail Management I
311.19 Retail Management II
311.31 International Marketing
311.32 Visual Merchandising
411.07 Advertising
411.13 Consumer Analysis
411.17 Sales Management
411.18 Social Issues in Marketing

C. PROFESSIONAL EDUCATION COURSES

211.15 General Business Methods
313.75 Practicum
313.28 Secretarial Methods
313.30 Bookkeeping Methods
313.32 Typewriting Methods
413.24 Methods of Teaching Distributive Education
411.01 Aims of Business Education
411.15 Principles of Vocational Education
411.20 Organization of Distributive Education

D. ACCOUNTING COURSES

211.05 Accounting Principles I
211.06 Accounting Principles II
311.10 Intermediate Accounting I
311.11 Intermediate Accounting II
311.07 Cost Accounting
411.02 Advanced Accounting
411.03 Auditing
411.10 Income Tax Accounting

E. SECRETARIAL COURSES

111.01 Typewriting I
111.05 Typewriting II
111.10 Stenography I
211.11 Stenography II
311.01 Clerical Office Practice
311.02 Secretarial Office Practice
311.16 Transcription
411.16 Machine Shorthand

MARKETING OPTIONS

311.17, Salesmanship and 411.17, Sales Management OR
311.18, Retail Management I and 311.19, Retail Management II
PLUS SIX CREDITS FROM THE FOLLOWING

411.07 Advertising
411.13 Consumer Analysis
411.11 Public Relations in Business
311.31 International Marketing
311.32 Visual Merchandising

GENERAL BUSINESS ADMINISTRATION OPTIONS

211.21 Marketing II
311.04 Small Business Management
311.13 Introduction to Insurance
311.14 Principles of Real Estate
311.29 Programming for Business Applications I
311.30 Programming for Business Applications II
411.04 Finance
411.08 Office Management
411.09 Personnel Administration
411.11 Public Relations in Business
411.12 Corporate and Partnership Law
411.14 Public Policy

111.01 Typewriting I (4 class hours)
For business education majors. Development of basic skills on straight copy material at a minimum speed level of 35 words a minute. Application of basic skills with tabulation, correspondence, and manuscript problems.

111.02 Typewriting (4 class hours)
Non-majors only. Introduction to typewriting for personal use. Letters, manuscripts, and tabulations are taught. Skill in both speed and accuracy is developed.

111.05 Typewriting II (4 class hours)
Prerequisite: 111.01
For business education majors. Development of basic skills on straight copy at a minimum speed level of 45 words a minute. Emphasis upon the refinement of production skills in correspondence, manuscripts, financial statements, business forms, and legal documents.

111.10 Stenography I (2 class hours)
Emphasis upon the introduction of the fundamental principles of Gregg shorthand and the development of the ability to construct outlines from previewed dictation at a minimum rate of 50 words a minute.

211.05 Accounting Principles I (3 class hours)
The basic course in accounting. Emphasis on a thorough understanding of the accounting cycle.

211.06 Accounting Principles II (3 class hours)
Prerequisite: 211.05.
Emphasis is on asset valuation, voucher system, financial statements, and accounting for partnerships.

211.11 Stenography II (3 class hours)
Prerequisite: 111.10 or equivalency examination.
Emphasis upon strengthening the student's knowledge of the shorthand system and to lay the foundation for the development of transcription skills. Development of ability to construct outlines from non-previewed dictation at a minimum speed level of 70 words a minute.

211.14 Introduction to Business (3 class hours)
An understanding of the principles and techniques of management in organizing and operating a successful business enterprise.
211.15 General Business Methods (2 class hours)
Prerequisite: 211.14
Broad concepts of objectives and content of General Business, use of instructional aids and materials, teaching and techniques and learning activities, and techniques of measurement and evaluation.

211.16 Business Communications (3 class hours)
Basic principles of writing for business with application to major types of inter- and intrafirm communications. Both letters and reports are treated in light of the psychological impact of the content of messages.

211.20 Marketing I (3 class hours)
Functions, institutions, and problems of marketing examined from the viewpoint of their effect on distribution of goods.

211.21 Marketing II (3 class hours)
Prerequisite: 211.20 (Marketing I)
The scope and activities of sales promotion with emphasis on the coordination of advertising, display, special events, and publicity. External and internal methods of promoting business, budgeting, planning and implementing the plan.

211.40 Directed Work Experience and Seminar (3 class hours)
Prerequisite: Distributive Education Major
Assignment of each Distributive Education major for one summer of seminar meetings, plus general part-time work experience under the supervision of the College to a well-organized distributive business. Credit will be given upon completion of the work experience.

311.01 Clerical Office Practice (2 class hours)
Prerequisite: 111.01
Learning of the operation of duplicating and mechanical and electronic calculating machines currently used in business. Application of typical business problems in a supervised laboratory situation.

311.02 Secretarial Office Practice (2 class hours)
Prerequisite: 211.11
Designed to give students experience on all duplicating and transcribing equipment. Provides a broad knowledge of skills related to office procedures with emphasis on the secretary as a skilled technician and administrative assistant.

311.03 Management Principles (3 class hours)
A study of the management functions of planning, coordination, directing, and controlling business activities. Emphasis is placed on decision making.

311.04 Small Business Management (3 class hours)
The problems of small business relative to personnel, control, finance, marketing, and management. Examination of these problems with regard to businesses involved in manufacturing, distribution, and the services is considered.

311.05 Business Law I (3 class hours)
The needs of law to protect rights and liberties of the individual in his business and personal relationships. Sources of law and the courts. Emphasis placed on contracts, agency, and employment.

311.06 Business Law II (3 class hours)
Prerequisite: 311.05.
A continuation of 311.05. Covers negotiable instruments, personal property, bailment and sales. Uniform Commercial Code used as the basis for the statutory interpretation.

311.07 Cost Accounting (3 class hours)
Prerequisite: 211.06.
Job order and process cost systems; study of various types of costs and management control and uses of cost data.
311.09 Business Statistics (3 class hours)
Collection and presentation of data; introduction to frequency distribution, time series, index numbers, and correlations, especially as they apply to business.

311.10 Intermediate Accounting I (3 class hours)
Prerequisite: 211.06.
Presentation of the methods of recording the organization and operation of a corporation, the issuing of stocks and bonds, investments and division of corporate earnings.

311.11 Intermediate Accounting II (3 class hours)
Prerequisite: 311.10.
Accounting for manufacturing, departments, consignments, installment sales, branch houses, intangibles; problems of depreciation, reserves, depreciation valuations, sinking funds, income and surplus; single entry analyses.

311.13 Introduction to Insurance (3 class hours)
A survey course designed to introduce students to the field of insurance. The course includes an examination of how an insurance company operates, the historical background of insurance contracts, the study of probability as it applies to insurance, and an examination of various types of contracts pertinent to the individual and the business.

311.14 Principles of Real Estate (3 class hours)
Examination of the real estate market as a social and economic force. Due consideration is given to real estate titles and regulations and licensing in the real estate business.

311.15 Business Experience (full time - 10 weeks)
Prerequisite: Sophomore or Junior Business Education Major.
Assignment of each Business Education major for ten weeks, under the supervision of the college, to a well-organized business office. Detailed written report required. For state certification only, but not for degree requirements.

311.16 Transcription (2 class hours)
Prerequisite: 211.11.
Emphasis upon the development of ability to construct outlines from non-previewed business, medical, and legal dictation at a speed rate of 90 words a minute. Further development of transcription techniques for producing correspondence and reports at the minimum rate of 25 words a minute.

311.17 Salesmanship (3 class hours)
Prerequisite: Permission of Instructor.
Deals with the definition of selling and its role in distribution, a review of basic knowledge and personality requirements, the various methods and techniques involved in making a sale, the kinds of sales problems encountered by the salesman and solutions, a step-by-step program for succeeding in a selling program.

311.18 Retail Management I (3 class hours)
A basic course dealing with a study of retail institutions and retail principles and practices. Emphasis will be placed on store operations, merchandising, finance and control, retail promotion, and retail research.

311.19 Retail Management II
Prerequisite: 311.18.
Principles and procedures related to a buyer's job covered during the semester including dollar and unit planning, unit control, and model stock, merchandise selection, assortment to buying plans, and pricing to achieve a required markup.

311.20 Consumer Education (3 class hours)
Designed to educate the consumer regarding effective management of his income and the manner in which to use goods and service to optimum advantage. The legal rights and liabilities inherent in the buyer-seller relationship are explored.
311.26 **Introduction to Data Processing** (3 class hours)

Presents concepts and principle necessary in developing a basic knowledge of computers and data processing systems. The IBM 1130 Computer and Punch Card equipment will be used to provide orientation to electronic data processing.

311.27 **Punch Card Data Processing I** (3 class hours)

*Prerequisite: 311.26*

Describes, illustrates, and gives experience in the use of punch card equipment. Shows how solutions to accounting and recording problems are machine processable. The basic concept of the unit record approach is emphasized throughout the course. Practice exercises, involving basic operation, planning and wiring a variety of punch card equipment is provided to give students hands-on experience.

311.28 **Punch Card Data Processing II** (3 class hours)

*Prerequisite: 311.26, 311.27*

Provides advanced problem solving of business punch card applications using the on-campus equipment. Included will be planning, wiring, and operating punch card equipment.

311.29 **Programming For Business Applications I** (3 class hours)

*Prerequisite: 311.26.*

A development of computer languages presently being used by business in solving commercial or accounting procedures. Basic Fortran IV and RPG will be presented. Applications will be solved by the student using the on-campus computer.

311.30 **Programming For Business Applications II** (3 class hours)

*Prerequisite: 311.26.*

Development of computer languages as presently used by business in solving commercial or accounting procedures. COBOL and Assembler Language will be presented. Applications will be solved by the student using the on-campus computer.

311.31 **International Marketing** (3 class hours)

*Prerequisites: 211.21.*

Introduces the advanced marketing student to the structure and operation of international marketing concerns, with special attention to the area of physical distribution, promotion, legal aspects, finance and the operation of both home and foreign-based facilities.

311.32 **Visual Merchandising** (3 class hours)

*Prerequisite: 311.18.*

Covers the use of principles of color, line and design in effective display, point-of-purchase display materials, construction and maintenance of exterior and interior retail store displays, and utilization of consumer motivation principles in designing display materials.

411.01 **Aims of Business Education** (2 class hours)

Provides business education majors with a background in business education that shows the relationship of business education to school, business, and community.

411.02 **Advanced Accounting** (3 class hours)

*Prerequisite: 311.11.*

Consideration of home office and branch interrelations; examination of the theory and techniques of corporate consolidations, including the preparation of consolidated statements under varying conditions.

411.03 **Auditing** (3 class hours)

*Prerequisite: 311.11.*

Auditing standards, procedures, programs, working papers, internal control, and the ethical and legal responsibilities of the Certified Public Accountant.
411.04  Finance (3 class hours)
Prerequisite: 211.06.
A study of the financial structure of business and government; will cover methods of raising capital, issuing of stocks and bonds, and the need for and use of capital.

411.07  Advertising (3 class hours)
Prerequisite: Marketing II.
An introduction to advertising. The purposes of advertising; how advertisements are prepared and delivered in the media. Measurement of the effectiveness of advertising.

411.08  Office Management (3 class hours)
Analysis of office functions, administration and supervisory control. Deals with the responsibility typically assigned to the office services manager. Stresses the application of scientific procedures for studying cost control in the office.

411.09  Personnel Administration (3 class hours)
Examination of personnel policies and practices. Emphasis on recruitment and utilization of human resources. The role of personnel management in the total organization.

411.10  Income Tax Accounting (3 class hours)
Prerequisite: 211.06
A study of the Federal Income Tax structure and forms with practice in applying basic principles to specific taxation problems of the individual, partnership, and corporation.

411.11  Public Relations In Business (3 class hours)
Public relations as a tool to supplement the efforts of management. Emphasis is placed on business-community relations and customer-company relations.

411.12  Corporate and Partnership Law (3 class hours)
Familiarization with the fundamental organization of businesses. Emphasis is placed on the laws of partnerships, corporations, and bankruptcy.

411.13  Consumer Analysis (3 class hours)
Prerequisite: 411.07.
An analysis of the consumer with reference to his spending and saving habits, product preferences, shopping behavior, leisure-time patterns, social change and mobility, and the influence of advertising and selling.

411.14  Public Policy (3 class hours)
An introductory course that provides for an examination of legislation and policies that affect the business executive. This course is designed to help the business executive understand the relationship between governmental agencies and the business community.

411.15  Principles of Vocational Education (3 class hours)
Survey of the basic history, philosophy, principles and methods employed in the vocational-technical education program.

411.16  Machine Shorthand (3 class hours)
Prerequisite: 111.01, 111.05.
Machine Shorthand applies shorthand theory to a compact keyboard so that writing speed and efficiency are easily obtained. The course is recommended for those interested in teaching machine shorthand to secondary school students. The course provides complete knowledge of the keyboard and theory with discussion of teaching methods, techniques and materials.

411.17  Sales Management (3 class hours)
Prerequisite: 311.17.
Operation of a sales organization in a manufacturing, sales-service, or wholesaling business. Study of the techniques of analyzing the work of salesmen, supervisors, branch managers, and staff assistants.
411.18 Social Issues in Marketing (3 class hours)
Prerequisite: 211.21.
Investigate the social effects of marketing management decisions, the role of government regulation, quasi-public and self-regulatory efforts, consumerism, competitive practices, and other current social issues of interest to the modern marketing manager.

411.20 Organization and Administration of Distributive Education
(3 class hours)
Prerequisite: 411.15.
Background, aims, coordination techniques, and administrative policies for organizing and operating distributive education programs in the secondary school, post-secondary schools, and adult education programs. A study of the relationship of distributive education to the total education program.

313.28 Secretarial Methods (2 class hours)
Prerequisites: 211.11, 311.01, 311.02.
Problems of teaching shorthand and office practice. (Secretarial office practice, clerical office practice, and office machines.) Teaching methods combined with analysis of teaching aids and materials.

313.30 Bookkeeping Methods (2 class hours)
Prerequisite: 211.06.
A study of the history and development of bookkeeping instructions and materials, and aims and objectives in light of current research findings.

313.32 Typewriting Methods (2 class hours)
Prerequisite: 111.05.
Methods of teaching beginning and advanced typewriting courses, with particular emphasis on the findings of researchers and the effect of research on the teaching of typewriting.

313.75 Practicum (2 class hours)
Prerequisite: Senior status.
Senior professional experience for Business Education majors. Discussion of actual classroom problems and procedures, aims, scope, and desirable outcomes of business education, classroom environment, proper use of instructional materials, responsibilities and ethics of the teaching profession.

413.01 Student Teaching (Full time—9 weeks)
Prerequisite: Meeting all criteria for admission to student teaching.
Nine-week period of student teaching during the senior year with approved teacher in the public schools. The experience is under the direct supervision of the public school teachers and the general supervision of the college supervisors. Observation, participation, and responsible teaching.

413.24 Methods of Teaching Distributive Education (3 class hours)
Prerequisite: 411.20.
A study of methods of teaching distributive education, using curriculum materials, audio-visual aids and library facilities, planning, developing, teaching and evaluating effective techniques in the teaching process.

EDUCATIONAL FIELD EXPERIENCE

Professors: B. Schwartz, Chairman; Stamm
Associate Professors: Gellman, D. Wright
Assistant Professors: Evangelisto, Hubbard, Warner, Wilker
Instructors: Farber, Richter, J. Smith

313.25 Junior Professional Experience for Secondary Education Majors
Prerequisite: Junior standing in one of the following curricula: English, History.
Political Science, Geography, Mathematics, Physics, Chemistry, Biology, Speech and Theater and Sociology.

Development of efficiency in teaching techniques. Synthesis of theory and practice. Directed observation and limited participation in off-campus Demonstration Centers. Distinctive nature of the public secondary school, principles of learning, the unit concept in learning, lesson planning, use of teaching aids, classroom management, teachers' responsibilities for guidance and activities program, the child as an individual and a group member, providing for individual differences, various special techniques (discussion, questioning, group projects, directed study, drill, etc.) curriculum planning, evaluating and reporting pupil progress.

413.01 Student Teaching (full time — 9 weeks)
Prerequisite: Completion of all criteria* for admission to student teaching. Nine-week period of student teaching during the senior year with approved teachers in the public schools. Under the direct supervision of the public school teachers and the general supervision of the college supervisors. Observation, participation, and responsible teaching.

*Prerequisites For Admission To Student Teaching
A student may be permitted to enter senior student teaching if:
(1) he has the approval of his major department;
(2) he has senior status with a minimum of 90 semester hours of credit and at least a 2.0 general over-all average;
(3) he has raised to a passing grade any required course in his major area in which he has earned “F,” “WP,” “WF;”
(4) he has removed any incompletes in courses in his major area;
(5) he has successfully completed each of the basic professional courses;
(6) he is a full-time student in the program at the Trenton State College;
(7) he is able to present a physician's certificate of his health, if it is required;
(8) he is able to present a certificate of his mental stability from a qualified professional source, if it is requested;
(9) transfer students, in addition to the previously listed criteria, must have satisfactorily completed at Trenton State College at least one specialized course that is related to the teaching of that field of specialization.

EDUCATIONAL FOUNDATIONS

RESEARCH AND PUBLIC EDUCATIONAL POLICY

Professors: Carroll, Chairman; Charlton, Gooden
Associate Professors: Jeffries, Messina, N. Schwartz, Trowbridge, D. Wright, Yengo
Assistant Professor: Updike

313.60 Development of Education Thought (3 class hours)
Examination of philosophic assumptions and beliefs in terms of relationships to the development of educational philosophy and to education as a social institution. Synoptic study of the history of European and American education. Evaluation of principles underlying educational theories and practices. Attention to specific philosophies of education and their implications for modern education. Emphasis upon developing a personal philosophy of education through an objective examination of beliefs, theories, philosophies and the history of educational thought.

413.40 The Teacher in School and Community (2 class hours)
An inquiry into the nature and scope of the teacher's role in the school and community. Examination of public education as a culturally forceful institution of the community and nation. Nature and significance of teaching as a profession. School law, issues, problems, and trends in public education.
413.75 Modern Negro Life and Educational Implications (3 class hours)
Contemporary problems involving black and white relationships in education are investigated. Examination of the experiences affecting both races from the time of slavery to the present problems of urban life and schooling provides an interpretation of the causes of division within the society and the inability to share common educational experiences.

ENGLISH

Professors: Liddle, Chairman; Beechhold, Ford, Holman, Levin, Thomas, Ward
Visiting Professor: Scheffler
Associate Professors: Erath, Kiley, Mehlan, Tiffany, Williams
Assistant Professors: Bearer, Brazell, Brown, DeMeritt, Diskin, Ekizian, Greene, Hanley, Harrod, McGrail, Murray, Wood
Instructors: Birnes, Hannold, Levine, Myers, Novick

Literature, the language itself, and the student's mastery of verbal expression are the chief subdivisions of the field of English, though none of these can be completely separated from the others. The English curriculum is designated to provide intensive study in literature, linguistics and composition. Many options are included so that the student will be able to explore specialized topics at the same time that he is developing a general competence in the subject.

First Year

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<th>Course No.</th>
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Teacher education students will select in their junior year Development of Educational Thought, Educational Psychology, Contemporary Health Problems, Methods of Teaching High School English and Junior Professional Experience; in the senior year the student will select Student Teaching and Teacher in the School and Community.

*See p. 30 for swimming requirement.
**Up to 6 s.h. of literature courses may be used to fulfill the Humanities requirements and may also be applied toward the major in another academic discipline.
The English Major

The student electing to major in English must complete the following program:

214.11-12 Form and Idea in English Literature ...................................................... 6
214.06 Classical American Literature ........................................................................ 3
214.43 Descriptive Linguistics ..................................................................................... 3

Departmental Options:
One course from each of the following groups:

A. 214.15 Creative Writing
   214.16 Advanced Composition
   338.50 Playwriting

B. 214.05 Introduction to Poetry
   414.36 Modern Poetry

C. 314.07 Literature of the Early 17th Century
   314.30 Shakespeare
   314.66 Literature of the Renaissance
   314.73 Literature of the Middle Ages
   314.67 English Drama: Renaissance through Restoration

D. 314.19 American Literature, 1860-1920
   314.20 Modern American Literature
   314.35 Victorian Prose and Poetry
   314.60 Romantic Movement
   314.65 18th Century Prose and Poetry

E. 314.12 Twentieth Century British Novel
   214.25 Short Story
   314.02 Continental Novel
   314.32 Drama Survey
   314.40 19th Century Novel
   314.75 Novel to Jane Austen
   414.06 Modern Drama

F. Any other course numbered 214.—, 314.—, or 414.—
   and not included in the options above.

Total .......................................................................................................................... 33

Minor in English

English I (or credit by examination) ................................................................. 3

214.01 World Literature ......................................................................................... 3
214.06 Classic American Literature ................................................................. 3
214.15 Creative Writing ......................................................................................... 3
214.06, 214.15, or 214.16 Advanced Composition

One 300 or 400 course in English (Required for second teaching field only) ... 2
114.10-11 **Introduction to English Composition I, II** (3 class hours)
Designed to discover and resolve in any way possible any weakness the student may have in approaching both literature and composition. Emphasis given to individual conferences with the professor.

114.06 **English I: Understanding Communication** (3 class hours)
Study of the use of language in the mass media, with emphasis on current periodical literature—magazines, newspapers, etc.—aimed at awareness of the basic elements involved in analytical reading and writing.

114.07 **English I: Freshman Seminar** (3 class hours)
Exploration and analysis of language in the communication of fact, opinion, and mood through the self-directed class.

114.08 **English I: Literature and Composition** (3 class hours)
An approach to freshman composition through the study of literature.

114.09 **English I: Writing** (3 class hours)
Understanding and practicing the relationships between reading and writing with emphasis on essays and expository prose.

114.20 **Intermediate Composition** (3 class hours)
Study and practice of major forms of writing—exposition, argumentation, description and narration—including an examination of the varieties of literary expression.

214.01-02 **World Literature** (3 class hours each semester)
Prerequisite: English I
American and English literature; European and Asiatic literature in translation. Reading of novels, plays, poetry, philosophy, and religious writings, grouped by subjects, theme, mood, or genre, rather than by language, nationality, or chronology.

214.04 **Introduction to Drama** (3 class hours)
Prerequisite: English I
Study of major dramatic works from the beginnings in the Greek theater to the middle of the 19th century, with emphasis on those authors and plays not usually discussed in other courses.

214.05 **Introduction to Poetry** (3 class hours)
Prerequisite: English I
Criticism and evaluation of poems based on imagery, music, and meaning. Oral reading of poetry and listening to recordings. Emphasis on poetry as an art.

214.06 **Classic American Literature** (3 class hours)
Prerequisite: English I
Through emphasis on key works, to offer the student a basic understanding of major developments in American literature and civilization to the closing years of the 19th century, and to provide a foundation for further study in more recent American literature.

214.08 **Introduction to Journalism** (3 class hours)
Prerequisite: English I
A general study of the basic principles and practices of news, sports, feature and editorial writing as the foundations of sound journalism, together with the advertising and business aspects of newspaper production.

214.11 **Form and Idea in English Literature I** (3 class hours)
Prerequisite: English I
A study of selected works of major English writers and their milieu from the Anglo-Saxon Age to the Restoration Period.

214.12 **Form and Idea in English Literature II** (3 class hours)
Prerequisite: English I
A selected study of works of major English writers and their milieu between 1700 and 1920.
214.15 **Creative Writing** (3 class ours) 
*Prerequisite: English I*
Experience in creative writing. Class criticism of manuscripts. Basic for a better understanding of the aesthetics of literature.

214.16 **Advanced Composition** (3 class hours) 
*Prerequisite: English I*
Expository writing with particular emphasis on contemporary grammatical theory and the development and analysis of style.

214.21 **Afro-American Literature I** (3 class hours) 
*Prerequisite: English I*
A survey of Afro-American literature from slavery to World War II.

214.22 **Afro-American Literature II** (3 class hours) 
*Prerequisite: English I*
A survey of the literature of the Afro-American since World War II.

214.25 **Short Story** (3 class hours) 
*Prerequisite: English I*
Critical examination of the short story as a type of literature. Study of stories by such authors as Melville, Poe, Joyce, Kafka, Hemingway, Faulkner, Roth, Updike, Hawthorne, Chekov.

214.43 **Descriptive Linguistics** (3 class hours) 
*Prerequisite: English I*
Survey of linguistic method and theory. Communication and information theory and the nature of language. The basic principles of the phoneme, morpheme, and immediate constituent analysis. Discussion of Sapir, Whorf, Bloomfield, Hockett, Fries, Pike, Harris, and Chomsky, and the development of the new generative—transformational school from traditional American descriptivism. Mentalism vs. behaviorism in linguistics.

214.45 **Historical Linguistics** (3 class hours) 
*Prerequisite: 214.43, Descriptive Linguistics*
Principles of language typology, language families and distribution, and linguistic geography. Comparative methods of historical reconstruction. History of Indo-European languages and history of the English Language.

214.90 **Homer and Greek Lyric Poetry** (3 class hours) 
*Prerequisite: English I*
A study in translation of *The Iliad* and *The Odyssey* of Homer and an introduction to a variety of Greek Lyrics.

214.91 **Ancient Greek Drama** (3 class hours) 
*Prerequisite: English I*
A study of Greek drama in translation, including the works of Aeschylus, Sophocles, Euripides, and Aristophanes.

314.02 **The Continental Novel** (3 class hours) 
*Prerequisite:*
Selected reading from such traditional authors as Flaubert, Zola, Tolstoy, Dostoevsky, Turgenev and such modernist figures as Mann, Kafka and Camus.

314.03 **Introduction to Applied Linguistics** (3 class hours) 
*Prerequisite: 214.43, Descriptive Linguistics*
The applications of linguistics to the study of style and meaning and to the teaching of language and literature.

314.04 **Introduction to Grammatical Theory** (3 class hours) 
*Prerequisite: 214.43, Descriptive Linguistics*
Introduction to grammatical theories and evaluation, with special emphasis on transformational generative grammar.
314.07 The Literature of the Early 17th Century (3 class hours)
Prerequisite*
Studies in the major figures and literary movements (excluding Shakespeare and the major works of Milton) of the period "to 1660."

314.12 The Twentieth Century British Novel (3 class hours)
Prerequisite*
Formal and thematic study of the novels of Conrad, Lawrence, Forster, Joyce, and other modern and contemporary British novelists.

314.19 American Literature from 1860 to 1920 (3 class hours)
Prerequisite*
Study of works by Whitman, Dickinson, Twain, Howells, James, Crane, Adams, and other representative authors of the period between the Civil War and World War I.

314.20 Modern American Literature (3 class hours)
Prerequisite*
Study of works by Hemingway, Faulkner, O'Neill, Eliot, Frost, and other significant American writers of the last 50 years, with emphasis on the developing cosmopolitan and international aspects of American literature.

314.30 Shakespeare (3 class hours)
Prerequisite*
Reading of a selected list of comedies, tragedies, and historical plays of Shakespeare.

314.35 Victorian Prose and Poetry: 1830-1895 (3 class hours)
Prerequisite*
Study of the chief prose works of Carlyle, Mill, Newman, Ruskin, Arnold, Pater, and representative poetry of Tennyson, Browning, Arnold, D.G. Rossetti and Swinburne.

314.40 Nineteenth Century English Novel (3 class hours)
Prerequisite*
Study of nineteenth century English novelists from Dickens to Hardy.

314.60 The Romantic Movement (3 class hours)
Prerequisite*
Close examination of some of the major works of the poets and essayists of the Romantic Period.

314.62 Studies in Literature (3 class hours)
Prerequisite*
Study of a significant phase of literature. This course varies from year to year to include one topic each year, such as: Mythology and the Bible, Oriental Literature, German Literature in translation, Spanish Literature in translation, Biography, Dostoevsky, etc.

314.65 Eighteenth-Century Poetry and Prose (3 class hours)
Prerequisite*
Studies of the major literary figures of the Augustan Age and the Age of Johnson: Swift, Pope, Gay, Goldsmith, Boswell, Johnson, and Burke.

314.66 Literature of the Middle Ages (3 class hours)
Prerequisite*
Literature of the 12th to the 15th centuries, including selected major works.

*For all 300 or 400 literature courses, the prerequisite is one literature course, or Junior standing or written permission from the instructor.
314.67 English Drama: Renaissance through Restoration (3 class hours)
Prerequisite*
Study of major British dramatists of the 16th and 17th centuries, including Shakespeare but with emphasis on others such as Marlowe, Jonson, Webster and Congreve.

314.70 The Film (2 hours classroom, 2 hours studio)
Prerequisite: Junior standing (or instructor's approval)
Background and development of the motion picture; film technique and aesthetics; film criticism.

314.73 Literature of the English Renaissance (3 class hours)
Prerequisite*
Selected readings in the major literary genres and figures of the period.

314.74 The Novel to Jane Austen (3 class hours)
Prerequisite*
Study of the development of the novel from Cervantes to Jane Austen, concentrating upon eighteenth century British writers.

350.10 U.S. History and Literature 1880-1914
Prerequisite: Junior Standing
Intensive study of the history and culture of the United States in the period ca. 1880-1914, not only through the traditional methods of historical study but through a wide selection of literature by the outstanding American writers of the time. The student elects to apply the credits to either English or History.

414.03 Studies in Chaucer (3 class hours)
Prerequisite*
Close reading and study of The Canterbury Tales and other Chaucerian works, in Middle English, with specific attention to the social and intellectual milieu in which he lived and wrote.

414.06 Modern Drama (3 class hours)
Prerequisite*
Modern Continental, British and American drama from Ibsen to the present.

414.09 John Milton (3 class hours)
Prerequisite*
A detailed examination of Milton's poetry and prose, with some attention also to Milton's life and writings on social, political and religious problems.

414.15 Heroes of Literature (3 class hours)
Prerequisite*
Traces the hero through literature from mythological Greek heroes and David in the Bible to such figures as Faust, Don Quixote, and Hamlet. Discussion of the hero "formulas" and the changing concepts of the hero.

414.25 Faulkner and Hemingway (3 class hours)
Prerequisite*
Study of two major American contemporary writers, with emphasis on the short stories and novels of each.

414.36 Modern Poetry (3 class hours)
Prerequisite*
Reading of significant modern poets in America and Great Britain, such as Eliot, Frost, Moore, Williams, Keats, Hopkins, Housman, Auden, Thomas and others.

414.40 Major Themes in Literature (3 class hours)
Prerequisite*
An exploration of major themes in Western literature looked at through studies in the history of ideas and selected works of literature.

*For all 300 or 400 literature courses, the prerequisite is one literature course, or Junior standing, or written permission of the instructor.
### 414.98 Independent Study (3 class hours)
**Prerequisite:** Junior standing
Intensive study of a literary or linguistic problem chosen through consultation between student and instructor.

### 414.99 Senior Seminar (3 class hours)
**Prerequisite:** Senior standing.
Study of selected advanced topics in literature or linguistics, the selection of materials varying from year to year.

### 435.01 Honors Quarter in English
English education students who have maintained superior academic records during the first three years of their college career will be invited to participate in the Honors Quarter during their senior year. The Honors project is done during the quarter and the student is not student teaching. Any student who is in his junior year and who is interested in such a program should talk to the department chairman.

### 435.02 Honors Semester
Students who have maintained superior academic records during the first three years of their college career will be invited to participate in the Honors Semester during their senior year. Any student who is in his junior year and who is interested in such a program should talk to the department chairman.

### 313.34 Methods of Teaching High School English (2 class hours)
**Prerequisite:** Junior standing and successful completion of freshman and sophomore English courses.
The student's first introduction to the specific problems of teaching English in the junior and senior high school. Since the course runs at the same time as the Junior Professional Experience at Antheil School, an attempt is made to coordinate both courses. Required for English teaching majors.

### 413.01 Student Teaching (full time — 9 weeks)
**Prerequisite:** Meeting of all criteria from admission to student teaching.
Nine-week period of student teaching during the senior year with approved teachers in the public schools of the state. Under the direct supervision of the public school teachers and the general supervision of the college supervisors. Observation, participation, and responsible teaching. Required for English teaching majors.

*For all 300 or 400 literature courses, the prerequisite is one literature course, or Junior standing.*

### ELEMENTARY AND EARLY CHILDHOOD

**Professors:** Adams, Burke, Carman, Durkin, Franz, Chairman; Stratemeyer, Watson

**Associate Professors:** Burcher, Ingalls, Metzger, Miller, Olivo, Rubin, J. Silver, Walther, E. Wright, Yates

**Assistant Professors:** Harned, Moore, Nemec, Shea, Shepherd, Tharney

**Instructors:** Chailey, Hinds, Jones, Marcus, Strouse, Turitzin

**Elementary Education**

**Classes of 1974 and 1975**

Elementary school teachers must have a broad academic background as well as a practical understanding of the elementary school curriculum. In the junior year one semester is devoted to professional experiences which relate theory and practice in the teaching of reading, modern mathematics, and science and social studies. The students have an opportunity to observe children and teachers in the public school classroom, and they also have an opportunity to participate in teaching and in other school activities which help the student gain experiences in planning, organizing, and directing the learning activities of the children. Various media including closed circuit television, tape recorders, and other devices are used for instruction in professional education courses.
Student teaching in the senior year offers the student an opportunity to teach under the guidance of a classroom teacher in an elementary school.

Upon graduation the student in the elementary curriculum receives a Bachelor of Science Degree and a certification permitting him to teach from kindergarten through grade eight in the public schools of New Jersey.

Students are advised to develop an arts and sciences minor. Students need to do this early in their college careers so that they may meet the requirements of that minor. A special minor in Mathematics is now available. For details, the students should see his advisor or any member of the Mathematics Department.

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Total for Year: 30

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*May be used to satisfy Humanities requirements.
**May be used to satisfy History and Social Sciences requirements. Obtain list of approved courses.
***Prerequisite: English 214.43 Linguistics.
+Prerequisite for 313.022 and 313.43.
JUNIOR PROFESSIONAL EXPERIENCE FOR ELEMENTARY EDUCATION MAJORS
Class of 1974

Prerequisite: Junior standing in Elementary Education. Courses 313.021 through 313.028 are to be taken as a block of study.

313.021 Observation and Participation
An integrated course coordinating theory and practice in the elementary grades. Demonstration lessons are taught by members of the demonstration school faculty. Involves observation and guided participation. Conducted as an interdepartmental seminar with the cooperation of the faculty of the demonstration school and several college departments.

313.022 Teaching Reading in the Elementary Grades (3 class hours)
Prerequisite: 214.43. Basic principles. Nature and organization of systemic reading programs for the elementary school. Various types of methods and materials used to provide an integrated sequential program of learning activities, and the teacher's responsibility in guiding the elementary school reader's growth. Demonstrations, guided observations, and related experiences. Opportunity is given to teach under the supervision of the demonstration school faculty and the college faculty.

313.023 Teaching Modern Math in the Elementary Grades (2 class hours)
(See Mathematics for course description.)

313.026 Science and Social Studies in the Elementary School (3 class hours)
Examines the purpose, scope and sequence of science and social studies instruction in the elementary school. Suggests ways and means of planning for the teaching of science and social studies content as well as abilities and skills. Provides opportunities for observing and teaching science and social studies.

313.028 Audio-Visual Education (2 class hours)
(See Instruction Media for course description.)

JUNIOR PROFESSIONAL EXPERIENCE FOR EARLY CHILDHOOD EDUCATION MAJORS
Class of 1974

Prerequisite: Junior standing in Early Childhood Education. Courses 313.061 through 313.068 are to be taken as a block of study.

313.061 Observation and Participation
An integrated course coordinating theory and practice in teaching in the Nursery-Kindergarten-Primary grades. Demonstration lessons are taught by members of the laboratory school faculty. Involves observation and guided participation. Conducted as an interdepartmental seminar with cooperation of the faculty of the demonstration school and several college departments.

313.062 Reading in Early Childhood Education (3 class hours)
An understanding of the developmental bases and skills necessary for learning to read in the early childhood years. Nature and organization, materials and methods used to provide an integrated sequential program of learning activities. Time allotted for demonstrations, guided observations, and experiences in the teaching of reading in assigned classroom.

313.063 Mathematics in Early Childhood Education (2 class hours)
(See Mathematics for course description.)

313.066 Social Studies and Science in Early Childhood (2 class hours)
Analysis of contemporary thought in teaching social studies and science to children, three to eight. Attention to community resources, physical phenomena and relevant social situations. Selection and organization of materials and experiences for young children and methods for their appropriate use in classroom settings.

313.068 Audio-Visual Education (2 class hours)
(See Instructional Media for course description.)
Early Childhood Education
Classes of 1974 and 1975

Teachers must have a broad background of knowledge if they are to be effective. In addition to providing the specific training for a teacher of young children, the college enables each student to acquire a liberal education. The courses in the Early Childhood specialization are designed to increase knowledge in specific areas, as well as to prepare for future teaching. Actual participation in the schools begins in the sophomore year. In the course, Guiding the Learning Experiences of Young Children, the student not only studies about young children, but also observes and participates in the activities of a nursery school.

For one semester in the junior year each student engages in professional experiences. While studying and learning the techniques of teaching arithmetic, music, art, reading, and social studies, the student also will observe children and teachers as they engage in the processes of learning and teaching. The student will participate in the activities and gain experiences in planning, organizing, and directing the learning experiences of children.

Each senior spends nine weeks in student teaching. Under the direction of a skilled and understanding supervisor, the student is able to use the ideas and techniques learned in college.

Students are advised to develop an arts and sciences minor. A special minor in mathematics is now available. For details, the student should see his advisor or any member of the Mathematics Department.

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413.01 Student Teaching .................. 8 413.27 Creative Learning Experiences for Young Children 3 413.12 Teaching Physical Education, Health, and Safety in Early Childhood Education ...... 1 413.40 The Teacher in the School and Community ............ 2

*May be used to satisfy Humanities requirements.
**May be used to satisfy History and Social Sciences requirements. Obtain list of approved courses.
***Prerequisite: English 214.43 Linguistics.
+Prerequisite for 313.022 and 313.43.

113.02 Developmental Reading and Study Skills (3 class hours)
Provides for the sequential development of basic and complex comprehension skills, the development of vocabulary, and the improvement of study techniques.

113.10 The Modern Elementary School (3 class hours)
An introductory course in Elementary Education. Acquaint students with major considerations that influence the development of the modern elementary school and the elementary school teacher. Includes field observations of elementary school situations, and selected readings from contemporary professional and popular literature. Required of elementary majors and may be elected by students in other programs who are considering careers in elementary school teaching.

213.01 Guiding the Learning Experiences of Young Children (2 class hours, 2 laboratory hours) (4 class hours)
Includes study of the characteristics and needs of young children, the significance of experience to child growth and development, the role of the teacher in guiding learning, basic principles and practices in teaching young children and observation and participation in a Nursery School or a Day Care Center.

213.25 Improving Reading and Study Skills (1 class hour)
For students who wish to improve their reading and study skills.

213.50 Child Growth and Learning (3 class hours, 2 laboratory hours)
The systematic study of normal children in elementary school environment emphasizing the application of psychological principles as a basis for classroom procedures. The descriptive and predictive factors affecting the developmental growth patterns of children including socialization, motivation, and individual differences related to the learning process. May not be elected.

Outdoor Education Experience

During the junior year, students in selected curricula participate in the outdoor education program (which is) conducted by the college at Camp Wapalanne in Stokes State Forest. For a period of five days in the fall or spring students are exposed to a program focused on outdoor education and its relationship to the modern school curriculum.
313.04 Teaching Art in the Elementary Grades (2 class hours)  
(See Art for course description.)

313.15 Fine Arts and Crafts in Early Childhood Education  
(See Art for course description.)

313.19 Music in Early Childhood Education  
(See Music for course description.)

313.21 Teaching Music in the Elementary Grades  
(See Music for course description.)

313.35 Curriculum of Early Childhood Education (3 class hours)  
Designed to emphasize basic concepts underlying the curriculum for young children, especially in the nursery school. Long-range and daily planning; techniques, methods and materials; role of the teacher in presenting content appropriate to the interest and needs of young children will be examined.

313.43 Language Arts in the Elementary School (3 class hours)  
Prerequisite: 214.43. The language arts program in the elementary school; language as a form of social behavior with emphasis on the language needs of children; methods and materials including children's literature in developing oral and written language abilities.

313.60 Development of Educational Thought (3 class hours)  
(See Educational Foundations for course description.)

313.68 Teaching Reading in the Junior and Senior High School (3 class hours)  
Theoretical concepts in learning and reading are explored and translated into specific teaching procedures. Content includes: causes of reading difficulty, the nature of the reading process, nature of learning as it relates to reading; procedures for developing reading study skills, word recognition, comprehension, appreciation; reading programs; materials for teaching reading; measurement and evaluation of reading achievement.

313.78 Development and Learning of Young Children  
Systematic study of the young child in the educational setting; developmental growth as a determiner of human learning; socialization, motivation, individual differences; psychological principles as a basis for classroom procedures. May not be elected.

313.90 Teaching in Inner City Schools (3 class hours)  
Prerequisite: Junior teaching completed. Open to Elementary and Kindergarten-Primary majors. Designed to assist pre-service teachers in defining their role in educating children in inner city areas and to suggest approaches to teaching and the use of materials for children in inner city schools.

413.01 Student Teaching (full time — 9 weeks)  
Prerequisite: Completion of all criteria for admission to student teaching. Nine-week period of student teaching during the senior year under approved teachers in selected schools, and the general supervision of the college supervisors. Observation, participation, and responsible teaching.

413.10 Teaching Health, Safety, and Physical Education in the Elementary Grades  
(See Health and Physical Education for course description.)

413.12 Teaching Physical Education, Health and Safety for Early Childhood Education  
(See Health and Physical Education for course description.)

413.27 Creative Learning Experience for Young Children (3 class hours)  
An investigation of creative experience developed and structured to stimulate language both written and oral with particular emphasis on creative dramatics.
413.38 Human Awareness in the Elementary School (3 class hours)
Prerequisites: Major in Elementary or Early Childhood Education. Experiences designed to develop human awareness in elementary school teachers. Utilizing the T group as a basic procedure for increasing sensitivity, this course focuses on interpersonal relationships among children and teachers in the elementary school. Students will have an opportunity to function in, as well as design, a learning climate which will foster human awareness.

413.40 The Teacher in the School and Community
(See Educational Foundations for course description.)

413.98 Problems in Elementary Education (1 class hour)
Prerequisite: Student Teaching. Designed to provide senior students with an opportunity to study methods and principles of teaching which meet the expressed needs of students returning from student teaching. Conducted as a seminar with the cooperation of college faculty as needed.

MODERN LANGUAGES

Professor: Howe, Chairman
Associate Professor: Lopez
Assistant Professors: Calo, Gonzalez, Hernandez, Winkel

Minors are offered in French, Spanish and German. The minor will consist of 18 semester hours in a single language. For a second teaching field, Teaching Modern Languages is also required. This course is not included in the 18 hour requirement.

Placement in Language Courses for Incoming Freshmen

Students continuing the study of a foreign language started in high school will be placed in the appropriate course following a placement examination; those who have studied a language two years in high school will receive no graduation credit for the first course in the same language (122.01), and after three years of high school work they will receive no credit for the first two courses (122.01-02) in the same language. "Language proficiency" is generally defined as the level of achievement attained in course 222.02 (and corresponding courses in the other languages).

FRENCH

122.01-02 French for Beginners (4 class hours each semester)
An introduction to spoken and written French, with stress on the four skills of reading, speaking, comprehension and writing. One hour per week of language laboratory.

222.01-02 Intermediate French (3 class hours each semester)
Prerequisite: One year of college French or two years of high school French. Review of grammar; composition and conversation. Reading in French prose, poetry and drama. One hour of language laboratory per week.

322.01-02 Introduction to French Literature I and II (3 class hours each semester)
Prerequisite: Two years of college French or four of high school French. Reading and discussion of selected works by major authors. Grammar review.

322.06-09 Nineteenth Century French Literature (3 class hours)
A study of the literary movements of the period: Romanticism, Realism, Symbolism and Naturalism.
322.14-18  Twentieth Century French Literature (3 class hours)  
Prerequisite: 322.02  
The study of new trends of thought in France as expressed in representative works of leading authors.

322.15-19  French Composition and Conversation (3 class hours)  
Prerequisite: 222.02  
This course is designed to give students an active command of the language by means of oral and written exercises accompanied by a thorough review of grammar, vocabulary, and idioms.

322.16  French Civilization I (3 class hours)  
Prerequisite: 322.02  
A study of modern French culture with emphasis on its economic, intellectual, artistic, and spiritual aspects. Reading of correlated literary texts.

322.17  French Civilization II (3 class hours)  
Prerequisite: 322.02  
A study of the origin and development of French culture with emphasis on its economic, intellectual, artistic and spiritual aspects. Reading of correlated literary tests.

GERMAN

122.05-06  German for Beginners (4 class hours each semester)  
The course emphasizes good pronunciation, a thorough study of grammar and reading as well as conversational German. One hour of language laboratory per week.

122.08-09  Reading Scientific German  
A course designed to teach the student to master the structure of scientific German and to enable him to read books and articles in the fields of natural sciences.

222.05-06  Intermediate German (3 class hours each semester)  
Reading of short stories by well-known German authors, both classical and modern. Review of grammar.

222.80  Contemporary German Writers in translation  
A selected study of contemporary German literature; works by Böll, Grass, Dürrenmatt, Frisch, Andres and Weiss.

322.12-13  Masterpieces of German Literature I and II in translation  
The major works in German literature from the Middle Ages to present. It includes discussion of major German literary movements. Does not yield credit toward a minor.

322.23-24  German Composition and Conversation  
Prerequisite: 222.06  
Systematic training in speaking and writing everyday German.

322.26-27  Introduction to German Literature (3 class hours)  
Prerequisite: Two years of college German or four years of high school German. Reading and discussion of selected works by major authors, with lectures on the history of German literature.

322.28  Modern German Literature in translation  
Reading, analysis and discussion of representative works of modern German prose and poetry (Mann, Kafka, Rilke, Kästner and others).

322.35-36  Modern German Drama  
A study of selected important German plays from Gerhart Hauptmann to Friedrich Durrenmann.
SPANISH

122.10-11 Spanish for Beginners (4 class hours each semester)
An introduction to spoken and written Spanish, with stress on the four skills of reading, speaking, comprehension and writing. One hour per week of language laboratory.

122.10-11 Intermediate Spanish (3 class hours each semester)
Prerequisite: One year of college French or two years of high school French.
Review of grammar; composition and conversation. Reading in Spanish prose, poetry and drama. One hour of language laboratory per week.

322.10-11 Introduction to Spanish Literature (3 class hours each semester)
Prerequisite: Two years of college Spanish or four years of high school Spanish.
Reading and discussion of selected works by major authors. Grammar review.

322.29 Civilization of Spain (3 class hours)
Prerequisite: 322.11
The course traces the development of Spanish civilization in its economic, intellectual, spiritual, and artistic aspects. Correlated literary readings.

322.30 Civilization of Latin America (3 class hours)
Prerequisite: 322.11
The course traces the development of Spanish civilization in its economic, intellectual, spiritual and artistic aspects. Correlated literary readings.

322.31-33 Spanish Composition and Conversation (3 class hours)
Prerequisite: 222.11
The course is designed to give an active command of the language by means of oral and written exercises which are accompanied by a thorough review of grammar, vocabulary and idioms.

322.32 Twentieth Century Spanish Literature (3 class hours)
Prerequisite: 322.11
The course traces the literary trends of recent years. Particular attention is given to the "Generación de 1898."

322.34 Twentieth Century Spanish Literature (3 class hours)
This course is designed to give an understanding and appreciation of representative literary works of twentieth century Spanish-America.

313.71 Teaching Modern Languages
Prerequisite: Permission of chairman.
A study of language teaching methods; practice in the use of the language laboratory; instruction in the evaluation of texts.

GEOGRAPHY

Professors: Casper, Chairman; Carney, Turk
Assistant Professors: Hewitt, Melvin, Strasser, Veldof

Geography is the study of spatial distributions and area relationships. It analyzes the fundamental processes by which human society operates in a spatial framework. The discipline offers the student a perspective for evaluating the social, political, and cultural trends influenced by man's physical environment.

Liberal Arts Major in Geography

The geography curriculum is designed to permit a student to develop either general competence in the subject or to specialize in one or more of its fields. Majors are required to take a core of 9 hours as indicated below:
CURRICULA

Geography 115.02 Cultural Geography of the Contemporary World ................. 3
Geography 115.10 Introduction to Physical Geography ............................ 3
Geography 115.15 Introduction to Economic Geography ............................ 3

The core courses may be taken in any order but each one is prerequisite to more advanced courses in its field. In any field 9 hours beyond the core course will be considered a specialization.

In addition to the core courses, to insure the minimum necessary geographic techniques the student will be required to take the following 6 hours:

Geography 215.16 Map Interpretation .................................................. 3
Geography 315.40 Field Techniques ..................................................... 3

To complete the major, 36 semester hours of geography, each student under advisement will select an additional 21 semester hours of geography to meet his educational and career needs.

Minor in Geography

For a minor in Geography a student will take a core of 9 hours as indicated below:

Geography 115.02 Cultural Geography of the Contemporary World ................. 3
Geography 115.10 Introduction to Physical Geography ............................ 3
Geography 115.15 Introduction to Economic Geography ............................ 3

and an additional 9 semester hours from among Geography offerings to a total of 18 semester hours in Geography. For a second teaching field, the student must also complete Teaching of Geography.

Teacher Education with a Major in Geography

Teacher education students will select in their junior year Development of Educational Thought, Educational Psychology, Contemporary Health Problems, Teaching of Geography, and Junior Professional Experience; in the senior year the student will select Student Teaching and Teacher in the School and Community.

Certification requirements for teaching geography are satisfied by this program.

First Year*

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*See p. 30 for swimming requirement.

**Taken from Physical, Economic, Cultural or Regional Geography.

1. Introduction to Geography

115.01 Physical Environment and Man (3 class hours)
Natural and cultural environments, and the relationship existing between them. Basic features of the earth’s major environments. Experience in the use of the literally of geography, atlases, maps, and other devices useful in locating and interpreting the character of places.

115.02 Cultural Geography of the Contemporary World** (3 class hours)
Varied contemporary cultural regions analyzed to show similarities and diversities of sites, schools, and the like. Basic to recognition, worth and interdependence of developed and developing nations. Knowledge of theories and data of selected social sciences necessary to understanding the dynamics of a rich, complex world.

2. Fields of Geography in which majors may specialize

Field 1 — Physical Geography

115.06 Geomorphology of the United States (2 class and 2 lab hours)
Study of the structure and formation of the major landform regions of the United States. Involves intensive analysis of the U.S. Geological Survey topographic maps. Historical approach emphasized. Two class hours and two laboratory hours per week.

115.09 Introduction to Physical Geography** (2 class and 2 lab hours)
This course is the study and integration of the disciplines which give general insight into the nature of man’s environment. It is a body of basic principles of natural science selected with a view to including primarily the environmental influences that vary from place to place over the earth’s surface. The objective will be the development of a unified concept of the natural environment of man.

Geographic Techniques

215.16 Map Interpretation*** (2 class and 2 lab hours)
Development of critical judgment concerning graphic elements of a map; introduction of research techniques used in the compilation of data; and new developments in the field such as “electronic sensing” and computer mapping. Maps are analyzed to reveal the spatial dimensions of natural and cultural responses identified geographically.

315.40 Field Techniques in Geography***
The use of field techniques in the formulation of basic geographic concepts such as spatial distribution, spatial interaction, and areal associations. The student will be provided with a set of basic geographic skills, concepts, values and modes of interpretation of the geographic landscape. Among these will be direct observation and the use of statistics, aerial photographs, maps and geographic models. An important aspect of the course will be the study of the rural and urban environments in the vicinity of the college.

415.15 Climatology (3 class hours)
The systematic study of weather elements, climatic controls, their interaction and distinctive occurrences over areas of the earth’s surface. Field work utilizing scientific instrumentation measuring heat and water budgets is required of each student.

** Core Course, prerequisite to more advanced courses in this field.

*** Required of Majors
415.97 Seminar of Colloquium in Geography (3 class hours)
Prerequisite: Departmental approval
This course will vary from semester to semester depending upon the needs and interests of the students and the one or more faculty members involved. It is expected to be a culminating experience for the student based on his total experiences in subject matter, techniques and philosophical viewpoint of geography.

Field 2 — Economic Geography

115.15 Introduction to Economic Geography ** (3 class hours)
A basic course designed to introduce the student to the spatial arrangement of human economic activities over the earth's surface. It will develop concepts of locational analysis, patterns of economic activity, transportation, and resource utilization. The traditional classification system of primary, secondary, and tertiary activities will serve as a framework upon which more modern approaches to the subject will be developed. Integration of physical and cultural influences upon economic activity will be an additional objective of the course.

Field 3 — Cultural Geography

115.02 Cultural Geography of the Contemporary World ** (3 class hours)
Varied contemporary cultural regions analyzed to show similarities and diversities basic to recognition, worth and interdependence of developed and developing nations. Knowledge of theories and data of selected social sciences necessary to understanding of the dynamics of a rich, complex world.

415.05 Political Geography (3 class hours)
Study of political geography concerned with the association of the earth and the state, and the relationships between the two. Geographic basis of international relations. Comprehension of the geography that is needed to understand important current international problems. A method of approach to the discernment and analysis of geographic factors which are involved in any specific international issue.

315.01 Anglo-America, East (3 class hours)
Study and interpretation of major geographic regions of eastern United States and Canada. Development of cultural environments in relation to the natural environment. Individual research on selected areas of New Jersey and participation in one field trip to nearby region required. Analysis of land utilization in relation to topography.

315.05 Anglo-America, West (3 class hours)
Study and interpretation of major geographic regions of western United States and Canada. Development of cultural environment in relation to the natural environment. Intensive study by each student of a selected region requiring knowledge and evaluation of professional materials and references.

315.16 Geography of Western Europe (3 class hours)
Study of the distinctive features of Western Europe and their regional aspects with emphasis on geographic elements contributing to present strength and weakness of European socioeconomic and political areal associations. Regional and cross-regional aspects of current development programs stressed; sequent occupation and man's role in the transformation of the environment discussed.

315.18 Geography of the U.S.S.R. (3 class hours)

+ 115.01 is prerequisite for all Regional Courses for non-majors or minors.
**Core Course, prerequisite to more advanced courses in this field.
***Required of Majors
315.21 Geography of Southeast Asia (3 class hours)
Prerequisite: 115.01
Study of geographic, ethnic, political and cultural regions of Southeast Asia. Emphasis on diversity of environment and cultural development in the area South of the Himalaya mountains and extending from the Indus river to New Guinea.

315.22 Geography of the Far East (3 class hours)
Study of the regions of China, Japan, Korea, and their border lands. Emphasis on physical geography, demography, economics and international relations.

315.26 Geography of Africa South of the Sahara (3 class hours)
Interpretative study of the geographic, ethnic and political regions of the continent of Africa south of the Sahara Desert. Emphasis on the study of Africa's political, economic and cultural relations with older nations of the world.

315.30 Latin America (3 class hours)
A regional study of Latin America to show the relationship between the environmental factors and the population pattern, the life of the people, their social customs and their methods of making a living. Stress upon transportation, commerce and communications within and between the various countries and with other parts of the world to show the economic importance of the main products of Latin America.

5. Educational Geography for majors and minors

313.74 Teaching of Geography
Prerequisites: Minimum 6 semester hours of Geography.
The study of modern methods and techniques for teaching geography or geographic materials. Special emphasis will be placed on the place of geography in the total school curriculum construction, the development of resource and teaching units and the techniques of measurement and evaluation. Evaluation of texts, instructional media and the organization of field trips will be considered. Adjustments will be made for both elementary and secondary fields of Geography.

415.98 Independent Studies
Prerequisite: Departmental approval.
Depth study in Geography of a carefully defined area or interest selected by the student.

HEALTH AND PHYSICAL EDUCATION

Professors: Tillman, Chairman; Morris.
Associate Professors: Brink, Medve, Salois, Schmid, Williams, Wright.
Assistant Professors: Baker, Chilakos, Clark, Cooper, Engels, Fassbender, Herzstein, Hill, Lebr.
McCorkle, Oshel, Rada.

Applicants must pass a physical performance test administered by the department before being permitted to major in Health and Physical Education.
The student of Health and Physical Education is provided with a background in general education, but nearly half of the work consists of the specialized health and physical education subjects. Class work and activity skills are combined in the physical education courses to cover all facets of this major. Practical teaching experience is provided during the senior year, with opportunities to gain experience on the elementary and secondary levels.
The Health and Physical Education Department has a Points and Awards Program in which women majors participate. This program has as its purpose the broadening of the curricular offerings and the enrichment of the learning experience. A description of the program is made available to the student as she begins her work with the department. Men majors are also expected to participate in intercollegiate, intramural and other departmental programs.

### Men’s Program

#### First Year

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<td>Mathematics</td>
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<td>117.44 Fundamental Movement</td>
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*May be used to fulfill science requirements.

+ May be used to fulfill humanities requirements.
### Women's Program

**First Year**

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## HEALTH EDUCATION

### First Year

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<td>232.12-13</td>
<td>General Biology I and II</td>
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<td>Introduction to Psychology I and II</td>
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<td>317.73</td>
<td>Curriculum &amp; Methods in Health Education</td>
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### Minor Health Education (Second Teaching Field)

A. Required Courses

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<th>Course No.</th>
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<td>First Aid</td>
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<tr>
<td>317.23</td>
<td>School and Community Health</td>
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</tbody>
</table>
317.73 Curriculum and Methods in Health Education

B. Nine Elective Hours to be chosen from:

317.67 Analysis of Drug Dependencies
317.70 Safety Education
317.72 Foundations of Sex Education
417.46 Evaluation in Health Education
425.46 Mental Health

Outdoor Education Experience

During the junior year, students in selected curricula participate in the outdoor education program which is conducted by the college at Camp Wapalanne in Stokes State Forest. For a period of five days in the fall or spring students enjoy a varied program focused on outdoor education.

117.05 Contemporary Health Problems (2 class hours)
Scientific discovery and recent progress in health science as an approach to the solution of health problems. Health is considered as a means to effective living and self-evaluation is encouraged.

*117.07m Weight Training (2 class hours)
Fundamental skills of weight training including safety measures and an understanding and appreciation of weight training to individual and team development.

117.08m Wrestling (4 class hours—9 weeks)
A basic course in wrestling which will cover takedowns, rides and breakdowns, escapes, reversals, pinning combinations and counter moves. The course will also present match and team scoring.

117.16m Football (4 class hours—9 weeks)
Theory and practice of the fundamentals. Designed to increase individual skills. Historical and contemporary developments of the game. Rules, strategy and responsibility of the coach for the welfare of the team.

117.21 Volleyball and Recreational Games (4 class hours—9 weeks)
Skills, techniques and fundamentals of volleyball and other recreational games such as handball and paddleball. This course will advance the student's own skills and develop his competency to teach these activities at the elementary and secondary levels.

117.26m Track and Field (4 class hours—9 weeks)
Theory and practice of the various track and field events used in intermediate and secondary schools. Requirements: to demonstrate techniques and to officiate in track meets.

117.27w Women's Track and Field (4 class hours—9 weeks)
Performance of skills and analysis of the events that comprise track and field for women. Contemporary training and conditioning programs will be studied.

117.40m Basketball (4 class hours—9 weeks)
Nature of the game. Instruction and practice in fundamental techniques.

117.42m Gymnastics I (2 class hours)
Development of gymnastic skills, care and maintenance of equipment and safety procedures will be offered. Major emphasis on ability to perform on gymnastics apparatus.

*117.44 Fundamental Movement (4 class hours)
Basic course for all students in the Health and Physical Education Department. Study of the theoretical analysis of music structure and form, the elements of music in relation to movement, and an introduction to creative movement.

*Elective—open to non-physical education majors.
117.46w Team Sports I (4 class hours)
Activity course in which students are taught fall field sports (field hockey, soccer, speedball). Individual skills, team tactics and rules.

117.52w Team Sports II (4 class hours)
Activity course in which students are taught an indoor team sport (basketball) and spring sports (softball and lacrosse). Individual skills, team tactics and rules.

217.01 Aquatics (2 class hours)
Fundamental swimming, diving, water safety and recreational (aquatic) skills.

217.03 Intermediate Swimming (one 75-minute period)
Fundamental skills of intermediate swimming including individual and group safety measures and an understanding and appreciation of watermanship skills prerequisite to attaining reasonable competence in deep water.

217.05 First Aid (3 class hours)
Basis: The standard first aid courses of the American Red Cross. Causes and prevention of accidents in school and camp situations. Methods of teaching first aid, with opportunities to attain American Red Cross Standard, Advanced and Instructor's First Aid Certificates.

217.08 Elementary Folk Dancing (2 class hours)
Theory and practice in folk dancing with opportunities for practice in teaching
Study of historical background, characteristics, costumes, traditions, of selected countries. The folk dance in relation to other folk arts and to the elementary curriculum.

217.11m Soccer (4 class hours—9 weeks)
Development of individual skills typical of the various positions Techniques, Utilization of skills and techniques in game situations. Lead-up activities for small and large groups.

217.17 Survey of the Dance (2 class hours)
Practical and theoretical orientation into various areas of the dance, including tap, soft shoe, modern, ballet, square, social, and contemporary dance.

217.21m Baseball (4 class hours—9 weeks)
Instruction in fundamentals of bunting, straightaway hitting, fielding, base running, base sliding, pitching and catching.

217.25-26 Anatomy and Physiology
(2 class hours and 2 laboratory each semester)
Structure and function of the various human tissues pertinent to the professional preparation for teachers in health and physical education.

*217.30 Camp Organization and Counseling (2 class hours)
The place of camping, the organization of camp programs, the role of camp counselors. Typical camp planning to visualize the relationship of waterfront and recreation areas to the camp as a whole. Fundamental requisites for camp counselors through participation, projects and group discussions. Camp crafts will be included.

217.33w Teaching and Coaching Team Sports I (2 class hours)
Organizing and leading the team sport program. Techniques of coaching and administering, including officiating. Emphasis on fall sports seasons.

217.34w Teaching and Coaching Team Sports II (4 class hours)
Prerequisite: Emphasis on the winter and spring sports season. Spring—Staff.

*217.37 Modern Dance I (4 class hours)
Prerequisite: 117.46w
Introduction to the contemporary dance field through dance techniques and creative experience in improvisation and movement exploration. Relating of principles

"Elective—open to non-physical education majors."
of art to all creative arts with emphasis on their use in creating dances designed for communication.

217.46  **Aquatics II** (2 class hours)
An introduction to the most common areas of competitive aquatics: Elementary springboard diving, competitive swimming, water polo, synchronized and simple contests for recreational purposes.

217.50m  **Gymnastics II** (2 class hours)
Prerequisite: 117.42m.
Designed to provide further knowledge and skill in gymnastic activities. Care and maintenance of equipment and safety will be stressed. Major emphasis will be placed on student performance on gymnastic apparatus.

217.55  **Games and activities in the Elementary School** (4 class hours)
Materials, skills and knowledge for the activity program in the elementary school. Preparation for practice teaching on the elementary level.

217.57  **Gymnastics in the Elementary School** (2 class hours)
This course is designed to develop a knowledge of fundamental gymnastic activities for the elementary school level. Each student will have the opportunity to develop the skills that are needed to teach gymnastics and related activities to the elementary age child.

217.60w  **Gymnastics I** (2 class hours)
Fundamental knowledge of gymnastics. Content includes care and maintenance of equipment, safety procedures and development of gymnastic skills. Major emphasis will be on student ability to perform on gymnastic apparatus.

317.01  **Kinesiology** (2 class hours and 2 laboratory hours)
Prerequisite: 217.25-26
Principles and mechanism of body movement.

317.19  **Methods and Materials of Teaching Dance** (1 class hour and 2 laboratory hours)
Prerequisites: 117.44, 217.08, 217.37
Designed to prepare teachers of dance at all levels of the curriculum, with emphasis on dance in the elementary school. Students are expected to draw on their experiences from prerequisites.

317.21  **Modern Dance II** (1 class hour and 2 laboratory hours)
Prerequisite: 217.37
A continuation of Modern Dance I with greater emphasis on small and large group compositions utilizing the concepts of space, time and energy.

*317.23  **School and Community Health** (2 class hours)
Prerequisite: 117.05.
The school health program and services including community health relationships; examination of such problems as health and physical examinations; prevention and control of communicable diseases; dental program; nutrition program and food control; classroom health and sanitation; special care for handicapped children; conservation of vision and hearing.

317.25  **Evaluation in Health and Physical Education** (2 class hours)
Review of recent trends and methods relating to tests and measurement in Health and Physical Education. Emphasis on the development of a basic working knowledge for handling statistical data and an appreciation of testing and measuring in the improvement of programs in Health and Physical Education.

*317.35  **Life Saving and Water Safety** (3 class hours)
Prerequisite: 217.01, or equivalent.
Opportunities are offered to qualify for a Life Saving Certificate and a Water Safety Instructor's Rating as established by the American Red Cross.

* Elective—open to non-physical education majors.
317.37m Officiating Men's Sports I (2 class hours)
Rules, mechanics and techniques of officiating soccer, football and basketball. Practical experience in officiating intramurals, team practices and/or community soccer, football and basketball games will be required.

317.38m Officiating Men's Sports II (2 class hours)
Rules, mechanics and techniques of officiating wrestling, track and field and baseball. Practical experience in officiating intramural team practices and/or community wrestling, track and field and baseball contests will be required.

317.42w Officiating Women's Sports I (2 class hours)
Prerequisite: 117.46w.
Opportunity to learn to officiate field hockey and volleyball and to obtain an official's rating. The course will consist of knowledge, skills and techniques of officiating and practice sessions which will require additional attendance at workshops, clinics, team practices and intramurals. Each student will be required to take all officiating examinations and must obtain one rating.

317.43w Officiating Women's Sports II (2 class hours)
Prerequisite: 117.52w.
Opportunity to learn to officiate basketball, softball and lacrosse and to obtain an official's rating. The course will consist of knowledge, skills and techniques of officiating and practice sessions which will require additional attendance at workshops, clinics, team practices and intramurals. Each student will be required to take all officiating examinations and must obtain one rating.

317.49w Gymnastics II (2 class hours)
Prerequisite: 217.60w.
Instruction in pyramid building, arching techniques and opportunities for individual leadership. Major emphasis will be placed on student performance of gymnastic apparatus skills.

317.53m Gymnastics III (2 class hours)
Prerequisite: 117.42m; 217.50m.
Speed vaulting, elephant vaulting, use of the climbing rope and various spotting and safety techniques will be included. Apparatus skill leading to routines will be emphasized.

317.57m Prevention and Care of Athletic Injuries (1 class hr. and 2 lab hrs.)
Prerequisites: 217.05; 217.25; 217.26.
Principles, organization and administration of training room facilities. Preventive and remedial athletic bandaging, analysis of common injuries, first aid and rehabilitation procedures, and athletic training techniques will be covered.

317.60w Gymnastics III (2 class hours)
Prerequisites: 217.60w; 317.49w.
Continuation of 317.49w. Advanced tumbling, stunts and apparatus activities.

317.63 Individual and Dual Sports I (4 class hours)
Fundamental theory and skills in golf, archery and tennis.

317.64w Individual and Dual Sports II (4 class hours)
Fundamental theory and skills in bowling, badminton and tennis.

317.65 Social and Advanced Folk Dancing (2 class hours)
Prerequisite: 217.08.
Fundamentals of performing and teaching basic social dancing and ballroom etiquette. Theory and practice in advanced folk dance materials.
317.67 Analysis of Drug Dependencies (3 class hours)
An analysis of the various drug dependencies and their effect on the individual and society. The use, misuse and abuse of mood modifying substances, including tobacco, alcohol and other drugs, both therapeutic and illicit, will be emphasized. Implications for instruction in the public schools will be included.

317.70 Safety Education (3 class hours)
Safety education and its relationship to modern day living and the school environment. Major emphasis is placed on the role of the teacher of safety education, curriculum and methods and materials.

317.72 Foundations of Sex Education (3 class hours)
Topics considered and studied are the status of sex education, sexuality in our society, morality and decision making, reproduction, population dynamics and family planning, sex research, and curriculum design and implementation.

317.73 Curriculum and Methods in Health Education (3 class hours)
The development of the health curriculum and its place in the total school program. K through 12. Implementation of the various content areas for all grade levels, and developing instructional units and lesson plans for health instruction, as well as methods and materials for use in the classroom.

317.75m Theory of Teaching and Coaching Football (2 class hours—9 weeks)
Prerequisite: 117.16m or permission of instructor.
An analysis of current offensive and defensive systems of play. Emphasis will be placed on the theoretical functions involved in modern day football. The preparation and responsibilities of coaching football will be stressed.

317.76m Theory of Teaching and Coaching Basketball (2 class hours—9 weeks)
Prerequisite: 117.40m or permission of instructor.
Designed to aid the prospective basketball coach in the development of a sound philosophy of basketball by exposure to all possible defensive and offensive sets available. Also covers strategy, conditioning and program administration.

317.77m Theory of Teaching and Coaching Baseball (2 class hours—9 weeks)
Prerequisite: 217.21m or permission of instructor.
This is a course designed to utilize the skills and techniques introduced in 217.21m Baseball into practical and effective ways of organizing, teaching and coaching baseball at all levels.

317.78m Theory of Teaching and Coaching Wrestling (2 class hours—9 weeks)
Prerequisite: 117.08m or permission of instructor.
Designed to cover all aspects of developing and running a wrestling program. History of wrestling, rules, facilities and equipment, coaching and teaching methods and advanced moves in wrestling. Organization and promotion of a wrestling program.

317.79m Theory of Teaching and Coaching Track and Field (2 class hours—9 weeks)
Prerequisite: 117.26m or permission of instructor.
Current theories and practices of teaching and coaching men’s track and field. Emphasis is placed on conditioning, analysis of individual skills and events, meet strategy, selection of individuals and teams, equipment, current rules and records, and responsibilities of coaches and participants.

317.80m Theory of Teaching and Coaching Soccer (2 class periods—9 weeks)
Prerequisite: 117.26m or permission of instructor.
An introduction to and an analysis of individual and team tactics involved in the varied systems of soccer theory. The various styles and patterns of team offense and defense, the adjustment of one to the other, and individual and team requirements in specific game situations will be stressed.

*Elective—open to non-physical education majors.
417.01 Organization and Administration of Health, Physical Education and 
Recreation (2 class hours)
Principles and practices of program organization and administration in health, 
physical education and recreation. Based upon the study of legal foundations, 
scope and philosophy of health, physical education and recreation, personnel 
functions, budget and finance, facilities and equipment, public relations and pro-
fessional organizations.

417.15 Developmental Physical Education (2 class hours)
Prerequisite: 217.25-26.
The organization and administration of corrective programs in the public schools. 
types and causes of postural deviations, postural examination procedures, cor-
rective exercises, programs and equipment will be covered. Experience in individ-
ual corrective procedures will be offered.

417.22 History and Philosophy of Physical Education (3 class hours)
Nature and scope of the profession. Emphasis is placed on opportunities and obli-
gations associated with becoming a member of the physical education profession 
and developing a workable philosophy of physical education for each major.

417.46 Evaluation in Health Education (2 class hours)
Introduction to measurement and evaluation in health education. Emphasis is placed 
on preparation and utilization of tests, interpretation of test results, and pre-
sentation of findings. Coverage is given to basic statistical procedures as they 
relate to the above.

417.50 Health Education and the Consumer (2 class hours)
Examination of a variety of health frauds, fads and fallacies designed to familiarize 
the consumer with specious practices in health related fields. Resource personnel 
from both official and voluntary agencies will provide the focus for subsequent 
discussion. Emphasis will be placed upon the role of consumer education as part 
of the health education program of the public schools.

313.39 Methods and Materials of Health and Physical Education (3 class hours)
Prerequisites: 117.05; 217.08; 117.42m or 217.60w; 217.55.
Subject matter materials, methods and principles for elementary and secondary 
school physical education and health instruction.

413.01 Student Teaching in Health and Physical Education 
(full time—full semester, first or second)
Prerequisite: Meeting of all criteria for admission to student teaching.
Full semester of student teaching during the senior year with approved teachers 
in the public schools of the state. Direct supervision of public school teachers 
and the general supervision of the college supervisors. Observation, participation, 
and responsible teaching.

413.10 Teaching Health, Safety and Physical Education in the Elementary 
Grades (4 class hours—9 weeks)
Prerequisite: 117.05.
Theory and practice of health, safety and physical education in the elementary 
school physical education program. Required of all Elementary Education majors.

413.12 Teaching Physical Education, Health and Safety for Kindergarten-Primary 
Grades (2 class hours—9 weeks)
Prerequisite: 117.05.
Theory and practice of health, safety and physical education in the elementary 
school physical education program. Required of all Kindergarten-Primary Edu-
cation majors.

Elective Physical Education

(These courses meet the Physical Education requirement of Criminal Justice and 
Elementary Education, Early Childhood and Teacher-Librarian Majors.)
117.60 Adapted Physical Education (2 class hours)
Required for students unable to safely or successfully participate in other physical education courses. (Admission only by direction of college physician.)

117.61 Beginning Swimming (2 class hours)
Fundamentals of swimming. Open only to non-swimmers.

117.62 Deep Water Swimming (2 class hours)
Basic fundamentals of deep water swimming skills and safety measures.

117.63 Synchronized Swimming
Prerequisite: 117.62.
Fundamental strokes and skills and their application in creating routines.

117.64 Water Polo (2 class hours)
Prerequisite: 117.62.
Basic skills and strategy of water polo.

117.65 Canoeing (2 class hours)
Prerequisite: 117.62.
Fundamental skills of basic canoeing and general safety common to all small craft. 
An opportunity to complete the American Red Cross Basic Canoeing course and to receive certification.

117.66 Archery (2 class hours)
Fundamental skills of Target Shooting and Their Application in Competitive Situations

117.67 Badminton (2 class hours)
Skills, rules and tactics.

117.68 Bowling (2 class hours)
Skills and rules of bowling.

117.69 Dance-Folk (2 class hours)
Study and performance of modern and traditional folk dances.

117.70 Dance-Modern (2 class hours)
Fundamental techniques and development of creative dance forms.

117.71 Fencing (2 class hours)
Development of fencing skills and their application in competitive situations.

117.72 Golf (2 class hours)
Basic skills and rules of drives, approaches and putting.

117.73 Gymnastics (2 class hours)
Developing and combining fundamental skills into routines on gymnastic apparatus.

117.74 Judo (2 class hours)
Fundamental skills, rules and tactics.

117.75 Paddleball and Recreational Games (2 class hours)
Development of table tennis, paddleball and handball skills.

117.76 Slimnastics (2 class hours)
Conditioning program to improve vitality, vigor, figure and graceful movement patterns.

117.77 Tennis (2 class hours)
Skills, rules and strategy.

117.78 Trampolining (2 class hours)
Basic skills and knowledge of trampolining activities.

117.79 Volleyball (2 class hours)
Skills, rules and strategy.
117.85m **Weight Training** (2 class hours)

Weight training skills incorporated into a resistive exercise program with running and the sauna bath included.

Highly skilled students may also elect major courses designated as being open for non-physical education majors.

**HISTORY**

_Professors:_ Carpenter, A. Cohen, Chairman; Hahn, F. Hirsch

_Associate Professors:_ Faughnan, Granat, MacLaury

_Assistant Professors:_ Abts, Allen, Dawley, Ellis, Karras, Moser, Oden

Awareness of history is an essential requirement for an understanding of man. Students are exposed to the discipline of weighing evidence and of evaluating various and conflicting interpretations of great events and significant personalities of the past. The past is studied both for itself and as it informs the present. By such means the student will develop a critical approach to the fundamentals of scholarship as well as a meaningful exposure to the traditions of a liberal education.

**History Major**

**Liberal Arts Program**

I. **General Pattern**

General Requirements .......................... See Graduation Requirements; the only exception for history majors is that the 12 semester hours in the category "History and Social Sciences" will be in non-history courses.

Language ...................................... Intermediate competence (two years of college study) is required of all liberal arts history students. The student may demonstrate his competency in a language through examination.

History ........................................ Introductory Courses (118.07-08, 118.10-11, 118.20-21) 21-27

Intermediate and Advanced Courses .................. 3

Seminar .......................................... 34-46

Electives ........................................ 32

Total ........................................... 124

II. **Yearly Pattern**

**First Year**

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**Second Year**

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**Total for Year**: 32

## Fourth Year

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**Total for Year**: 30

*See p. 30 for swimming requirement.*

## Teacher Preparation Program

### General Pattern

**General Requirements**

See Graduation Requirements; the only exception for history majors is that the 12 semester hours in the category "History and Social Sciences" will be non-history courses.

**Professional**

- 117.05 Contemporary Health Problems
- 325.14 Educational Psychology
- 313.60 Development of Educational Thought
- 313.59 Methods of Teaching High School Social Studies
- 313.25 Junior Professional Experience
- 413.40 Teacher in School and Community
- 413.01 Student Teaching

**History**

- Introductory Courses (118.07-08, 118.10-11, 118.20-21)
- Intermediate and Advanced Courses
- Seminar
- Electives

**Total**: 124

Students preparing themselves for secondary school teaching must take some work in each of the 2 areas of American and European history. Afro-Asian history is strongly recommended. Furthermore, since it is likely that much of their teaching will be in American history, a minimum total of 12 hours of American history would be highly desirable. A student preparing for full social studies certification must have some work in U.S. history, European history, and courses in three of the following: economics, geography, political science, and sociology. It is also recommended that all history majors command an intermediate level of competency in a foreign language.
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<td>313.25 Junior Professional Experience</td>
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### Minor in History

**Liberal Arts Minor**

Any 18 hours in history constitutes a history minor.

**Second Teaching Field in History:**

- U.S. History Courses: 6 hours
- European History Courses: 6 hours
- Optional History Courses: 2 hours
- 313.59 Methods of Teaching High School Social Studies: 20 hours
Description of Courses

118.07-08  The Heritage of the Western World I, II (3 class hours each)
A study of the major political, social, economic, and intellectual developments underlying contemporary western civilization. Beginning with the formative period of the ancient world, the course will focus on the traditions of western culture as they evolved through medieval, early modern, and into the contemporary period. The emphasis throughout will be on those historical problems and forces which have molded the features of our own day.

118.10-11  Introduction to Asian Civilization I, II (3 class hours each)
An introductory survey course of Asian civilization from its origins to its contemporary societies. Asian Civilization I focuses on China and Japan. Asian Civilization II focuses on India and Southeast Asia.

118.20-21  Studies in U.S. History I, II (3 class hours each)
An examination in depth of selected topics in U.S. History dealing with political, social, and foreign policy developments, with an emphasis upon the analytical and interpretive approaches unique to history.

118.25  Afro-American History (3 class hours)
Prerequisite: One semester of college work
The role of the Negro in America since slavery, with emphasis on 20th century developments; the migration from farm to city; the growth of the civil rights movement; the race question as a national problem.

218.04-05  History of Japan I, II (3 class hours each)
Prerequisite: Sophomore standing
A history of Japanese civilization from its origin to present day, designed to familiarize the student with the origins, development and characteristics of traditional Japanese culture, and with the reasons for and the process of modernization which took place in Japan during the 19th and 20th centuries.

218.06  Twentieth Century World History (3 class hours)
Prerequisite: Sophomore standing
Introduction to the historical background of the crises of our age. Study of the impact of rising nationalism and declining colonialism on Europe, Asia and Africa; the world-wide struggle between democracy and dictatorship; the analysis of political, economic, and social consequences of two wars.

218.25  Soviet Communism and the International Communist Movement (3 class hours)
Prerequisite: Sophomore standing
Study of the immediate origins, the ascendancy and consolidation of Soviet Communism. Study of the international communist movement and its relationship to the Soviet state. Special stress on the inter-relationship between ideology and the realities of political power, and upon the contrast between the Soviet myth and reality since 1917.

218.27  History of Russia to the 20th Century (3 class hours)
Prerequisite: Sophomore standing
A survey of Russian history from its beginning to the 20th century with emphasis on Russia's autocratic and communal traditions, rising intelligentsia, evolution of modern political ideas and the beginning of revolutionary movements.

218.28  Twentieth Century Russia (3 class hours)
Prerequisite: Sophomore standing
A survey of the political, cultural, economic and social developments in Russia from the ascendance of Nicholas II to the present time with emphasis on the in-
Influence of political tradition and ideology on the changing policies of the various regimes and the conditions in the Soviet Union.

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<td>218.31</td>
<td>Medieval Thought and Culture I (3 class hours)</td>
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<td>An examination of the late Roman Empire and its legacy to the Middle Ages in conjunction with the development of the Christian Church and the changes that take place in western society as a result of the migration of the German tribes. The course will end with the Investiture Controversy in 1122.</td>
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<td>Medieval Thought and Culture II (3 class hours)</td>
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<td>This course includes study of the crusading movement; the rise of the national monarchies which will challenge the authority of the Medieval Papacy. There will be an over-all study of those political, economic, and social changes which will lead to the breakdown of the Middle Ages.</td>
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<td>218.34</td>
<td>England to 1668 (3 class hours)</td>
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<td>Study of English historical developments from pre-history to the Glorious Revolution. Special emphasis on the period of the Tudors and Stuarts when the basic institutions of Modern Britain were molded.</td>
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<td>218.35</td>
<td>Modern Britain (3 class hours)</td>
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<td>A continuation of England to 1668. Study of Britain from the period of the broad revolutionary settlement (1668-1715) to today.</td>
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<td>218.43</td>
<td>Colonial America (3 class hours)</td>
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<td>Focus on social, economic, and intellectual aspects of early American life with secondary attention to political events of seaboard and in frontier areas. Contribution of period of shaping of the American character and the nation’s development. Special attention to life in the Middle colonies, including New Jersey. Option for Kindergarten-Primary majors.</td>
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<td>218.45</td>
<td>The Moving Frontier in America (3 class hours)</td>
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<td>Study of the conquest of a continental wilderness from the days of the early pioneers until the turn of this century. Analysis of the influence of the frontier in shaping national character as well as political and economic events. Evaluation of the Turner thesis and its critics.</td>
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<td>218.50</td>
<td>Modern German Civilization (3 class hours)</td>
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<td>Comprehensive study of Germany’s political, social and cultural role in the era of her greatest contributions to European civilization. Wide readings and class discussions of great writers from Goethe to Thomas Mann, thinkers from Kant to Albert Schweitzer, scientists, artists, and musicians. Also the changes in German society stressed.</td>
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<td>218.51</td>
<td>German Civilization from Charlemagne to Frederick the Great (3 class hours)</td>
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<td>This course will emphasize the rich contributions Germany made to European culture in the Middle Ages and the earlier modern times.</td>
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<td>218.52</td>
<td>East Central Europe to 1848 (3 class hours)</td>
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<td>A history of the East Central European area; the evolution of the multinational Habsburg Empire until 1848.</td>
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<td>218.53</td>
<td>East Central Europe—1848 to 1938 (3 class hours)</td>
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This is a survey course of the Habsburg monarchy and her succession states from the time of the ascension of Francis Joseph I, until 1938.

218.56 France from Louis XIV to the Third Republic (3 class hours)
Prerequisite: Sophomore standing
A study of the political, social, economic and intellectual development of France under the Monarchy and the Republic.

218.57 Contemporary France (3 class hours)
Prerequisite: Sophomore standing
A study of the political, social, economic and intellectual development of France since the founding of the Third Republic.

218.60 History of New Jersey (3 class hours)
Prerequisite: Sophomore standing
Survey of New Jersey History from the first settlement to the present, covering the development of political and cultural institutions as well as the growth of agriculture and industry.

218.64 Chinese History I (3 class hours)
Prerequisite: Sophomore standing
A survey of China’s cultural and institutional development and study of historical patterns from the beginnings to the seventh century.

218.65 Chinese History II (3 class hours)
Prerequisite: Sophomore standing
A history of Modern China from the early seventh century to the Mid-Twentieth century stressing the clash of Chinese civilization with the West and its response.

218.75 History and Culture of Africa I (3 class hours)
Prerequisite: Sophomore standing
A study of the history and pre-history of Africa as the mother land of the modern human race, and as the ancestral homeland of Afro-Americans, from the great civilizations of ancient and medieval times, through the slave trade to the period of intensive European colonization about 1870.

218.76 History and Culture of Modern Africa II (3 class hours)
Prerequisite: Sophomore standing
The artificial division of Africa into European colonies, the development of pan-Africanism and national liberation movements and their relationship to the struggles of black people in the western hemisphere. Particular examination of contemporary problems such as apartheid, “neutralism,” “nation-building,” and rapid economic development.

218.80 Colonial Latin America (3 class hours)
Prerequisite: Sophomore standing
Designed to introduce the student to the societal diversity resulting from the concatenation of Indian, African and European cultures over three centuries from California to the Argentine; from pre-Columbian times through the Conquest to the beginnings of the Wars of Independence.

218.81 Recent Latin America, since ca. 1810 (3 class hours)
Prerequisite: Sophomore standing
The development of nationality; the struggle of Indians and blacks for equality; problems in the development of democracy; problems in the distribution of land and other wealth; relations with the United States and Europe; the development of anarchist, Marxist and APRISTA movements; Hispanic-American minorities in the United States.

218.84 History of Ideas (3 class hours)
Prerequisite: Sophomore standing
Study of the ideas that have helped to shape modern Western history from the
Renaissance to the present. Preliminary attention to an understanding of humanism, protestantism, rationalism, and science as background to a more intensive study of the intellectual climate of the past one hundred years, involving such problems as liberalism, conservatism, Marxism, fascism and "anti-intellectualism."

318.01 20th Century America (3 class hours)
Prerequisite: Sophomore standing
Beginning with World War I and bringing the nation's development to date, emphasis on such major changes as the transformation of American capitalism and labor, the emerging welfare state, and the increasing involvement in foreign affairs with the attendant problems of security, solvency, loyalty and world leadership.

318.06 Classical Greek Civilization (3 class hours)
Prerequisite: Sophomore standing
A study of the elements which contributed to the development of Classical Greek Civilization, beginning with the Minoan-Helladic period through the Homeric and Archaic ages to the Classical World of the fifth century B.C. where the emphasis will be placed.

318.07 Hellenistic World (3 class hours)
Prerequisite: Sophomore standing
A study of the disintegration of the classical world during the fourth century B.C., the transition period exemplified by the career of Alexander the Great and the emergence of the new civilization of the Hellenistic World which stretched from Sicily to the Indus Valley.

318.10 French Revolution and Napoleon (3 class hours)
Prerequisite: Sophomore standing
Causes and course of revolution and of dictatorship as illustrated in the eighteenth and nineteenth centuries in France. Analysis of the Old Regime, the Role of the philosophers and other causative factors. Examination of stages of the upheaval leading to Napoleon's rise and his influence on civilization of western Europe.

318.18 Renaissance and Reformation (3 class hours)
Prerequisite: Sophomore standing
Designed to provide students with deeper insights into a crucial period of European civilization. Emphasis on the cultural impact of the discoveries and the rise of the Spanish empire; the great masters of the Italian and Northern Renaissance; the role of the Humanists, especially Erasmus; the historical significance of the Protestant Reformation and Catholic Counter-reformation; the changes in society and government during the sixteenth century.

318.19 English Civil War and Puritan Revolution (3 class hours)
Prerequisite: Sophomore standing
Study of the causes and pattern of one of the formulative revolutions in modern history. The interaction of religious, political, economic, and ideological factors in relation to their roles in both precipitating and setting the tone for the upheaval.

318.20 Revolutionary Period in America (3 class hours)
Prerequisite: Sophomore standing
Study of the evolution of political thought in America producing in turn desire for independence and the formulation of a workable structure of government. Opportunity to penetrate beneath surface in the examination of men and events in the crucial period. Use of primary materials and field study. Special attention to role of New Jersey.

318.25 Civil War and Reconstruction (3 class hours)
Prerequisite: Sophomore standing
Study of factors in the coming of the war, its course, and its consequences. Some opportunities for the student to deal with primary sources, although the major emphasis will be on written secondary materials; student will have experience in pursuing his individual interests in the field or in personalities, as well as developing a competence in the era.
318.30 Reform in America (3 class hours)
Prerequisite: Sophomore standing.
Study of the political and social forces and the intellectual currents behind reform movements in the United States. Determining of specific topics by the needs and interests of the group with emphasis upon the determining of the characteristics of reform movements and their relationship to the development of American institutions and ideals.

318.37 History of the Roman Republic (3 class hours)
Prerequisite: Sophomore standing.
A study of the development of Rome from one of the ancient Italian City-States to a position of mastery over Italy and the Mediterranean World. The problems of internal change from a simple city-state to the capital of an imperial republic will be stressed.

318.38 History of the Roman Empire (3 class hours)
Prerequisite: Sophomore standing.
A study of the development of the imperial system beginning with the Augustan Settlement and tracing the evolution of the imperial system through the first two centuries A.D. The crisis and recovery of the third century A.D. and the process of adjustment and transformation during the fourth and fifth centuries A.D. will be developed.

318.40 Industrialization in the United States (3 class hours)
Prerequisite: Sophomore standing.
The change in American life during the late 19th century from a local, rural, individualistic, and commercial focus to a national, urban, corporate, and industrial focus, with its consequences. Attention to such topics as: inventions, industrial developments, business leadership, the role of government, labor and immigration, urbanization, and the social criticism which followed.

318.45 Problems in European Diplomatic History (3 class hours)
Prerequisite: Sophomore standing.
A study of selected problems in European Diplomatic History in the nineteenth and twentieth centuries.

318.46 History of Socialism and Communism (3 class hours)
Prerequisite: Sophomore standing.
An introductory course of the history of the various forms of socialist and communist movements and their impact on history from the end of the 18th century to the present.

318.47 History of Urban America (3 class hours)
Prerequisite: Sophomore standing.
The changing urban patterns in the United States as influenced by geographic, demographic, economic and cultural factors. The increasing influence of the city on the social, political and cultural life of the nation.

318.50 History of American Diplomacy (3 class hours)
Prerequisite: Sophomore standing.
Study of the development of American foreign policies, the forces which have shaped and altered them, and of the people and processes involved in their implementation. Emphasis on the twentieth century.

318.52 Leaders in American Development (3 class hours)
Prerequisite: Sophomore standing.
Major trends in development of ideas and events that have shaped national growth through careers of national leaders prominent at time. Opportunity to study individuals and their leadership role in some detail. Periods and personages selected for emphasis presenting cross-section of American development at different stages from colonial days to present.
318.60 Middle East I (3 class hours)
Prerequisite: Sophomore standing.
A survey of religious, political, and social changes concomitant upon the emergence of Islam in the Mediterranean area, illustrating its intimate relations with, and impact upon, the West, to the 19th century.

318.61 Middle East II (3 class hours)
Prerequisite: Sophomore standing.
Survey of the political, economic, and social changes of the last fifty years in the Arab world affairs and their rising nationalistic strivings. Evaluation of United States policies in relation to Arab states, Turkey and Israel.

350.10 U.S. History and Literature, 1880-1914 (3 class hours)
Prerequisite: Junior standing; one year college level history or literature is recommended.
Intensive study of the history and culture of the United States in the period ca. 1880-1914, not only through the traditional methods of historical study but through a wide selection of literature by the outstanding American writers of the time. How their times affected the work of these men and women, and how they in turn imprinted upon our history, will be the overview of the course.

313.59 Methods of Teaching High School Social Studies (2 class hours)
Prerequisite: Department standards.
Development of criteria for selecting and organizing content, materials, and activities consistent with current conceptions of worthwhile educational goals. Focus on handling of controversial issues, current affairs, concepts of time and space; developing critical thinking; providing for individual differences and evaluating progress in understanding and skills.

413.01 Student Teaching (full time—9 weeks)
Prerequisite: Meeting of all criteria for admission to student teaching.
Nine-week period of student teaching during the senior year with approved teachers in the public schools of the state. Under the direct supervision of the public school teachers and the general supervision of the college supervisors. Observation, participation, and responsible teaching.

418.02 Social Studies Colloquium (3 class hours)
Examination in depth of one or more scholarly works or theses which have influenced interpretation within a field of the social studies sufficiently to become recognized as classics. Attention given also to authors of the influential concepts. For Social Studies majors only.

418.50-51 Honors Course in History (3-6 hours)
Students who qualify for Honors Projects will be selected near the end of their junior year. With the advice of an instructor, each student who wishes to elect an Honors Project in History will prepare a project outline to be presented to the History Staff for approval. The Project may be executed during the second quarter of the senior year and/or during the second semester. Students may earn from three to six semester hours of elective credits. The credit will be assigned when the Project is completed. The Project will be conducted on an individual basis with careful advisement from the faculty consultant.

418.95 Independent Study in History (class hours by arrangement)
Prerequisite: 12 hours in history or approval of instructor.
A intensive study of a problem or area of history through consultation and a close working relationship between student and instructor.

418.98 Seminar in History (3 class hours)
Prerequisite: 12 hours in history or approval of instructor.
Small classes that will focus on specific topics in history. Formal seminar reports.
Required of all history majors; normally taken in senior year.
INTERNATIONAL STUDIES

Associate Professor: John F. Erath, Coordinator
Assistant Professor: Joseph P. Gorczynski, Assistant Coordinator

360.01 The International Workshop
A three-week bi-national summer program arranged in cooperation with the Experiment in International Living. The visiting group (nationality varies from year to year) joins a group of Trenton State College students for a program of lectures, discussions, field trips, recreational, and social activities to promote an appreciation of the different cultures.

360.05 Area Study Seminar—Germany
A summer study-travel program offered in cooperation with the Experiment in International Living. The focus of the course is oriented toward comparative education, history, art, and political structures and includes intensive language training, home stay with German family, campus stay at University of Frankfurt, and bus trip to sites of cultural or historical importance.

360.10 Semester Study Abroad
Prerequisite: Junior or Senior standing.
A program of directed, individual investigation and study in one of three media: (a) participation in the Independent Study Program of the Experiment in International Living; (b) study at the University of Copenhagen, Denmark under the direction of the Danish International Student Committee; (c) study at selected English colleges under direction of New Jersey Council of Coordinators of International Education.

360.15 History & Archaeology of Roman Britain
During a six-week stay in England the student will participate in lectures and study of Roman Britain, visits to sites of historical and archaeological value, and a three-week archaeological "dig."

LIBRARY SCIENCE

Assistant Professor: Shor
Instructors: Brown, Hartz, Acting Chairman
The library science program prepares undergraduate students in the following major professional areas:

MAJOR PROGRAMS

1. ELEMENTARY SCHOOL TEACHER-LIBRARIAN - A Major qualifying students for state certification as teacher-librarians and elementary school teachers.
2. SECONDARY SCHOOL TEACHER-LIBRARIAN - For the secondary teaching Major who also wishes to qualify for state certification as a teacher-librarian.
3. PARA-PROFESSIONAL - For the liberal arts Major who also seeks qualification for positions in small colleges or public libraries.

Students interested in pursuing a future graduate degree in library science are strongly recommended to acquire a knowledge of a foreign language. (6-12 Sem. Hrs.)

MINOR PROGRAMS
The library science department also offers minor programs for those students specializing in the Early Childhood, Elementary, and Secondary teaching areas.
Students desiring a library science Minor must notify the library science department chairman of their intention prior to the completion of nine semester hours of library science.

The four year program for the ELEMENTARY SCHOOL TEACHER-LIBRARIAN MAJOR is included for the student's convenience.
## Elementary School Teacher-Librarian Major

### First Year

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<tr>
<td></td>
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Total for Year: 32 Sem. Hrs.

### Second Year

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<tr>
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<td>Reference &amp; Biblog. II</td>
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<td>313.50</td>
<td>213.43</td>
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<td>Child Growth &amp; Learning</td>
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Total for Year: 32 Sem. Hrs.

### Third Year

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<td>Development of Educational Thought</td>
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<td>313.026</td>
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Total for Year: 32 Sem. Hrs.

### Fourth Year

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<td>413.10</td>
<td>Teaching Health, Safety, &amp; Physical Education in the Elementary Grades</td>
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<td>Administration of School Libraries</td>
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<td>413.98</td>
<td>Problems in Elementary Education</td>
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<td>420.07</td>
<td>Book Selection</td>
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<td>313.21</td>
<td>Teaching Music in the Elementary Grades</td>
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<td>413.40</td>
<td>Teacher in the School and Community</td>
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<td>313.70</td>
<td>Electives</td>
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</table>

Total for Year: 29 Sem. Hrs.

* † See p. 30 for swimming requirement.
* May be applied to history and social science requirement.
* Prerequisite for 313.022 and 313.43.
* † Prerequisite for 220.02.
The following is a listing of requirements for Library Science MAJOR PROGRAMS.

Requirements for

1. Elementary Teacher-Librarian Majors

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hrs.</th>
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<tr>
<td>220.01</td>
<td>Reference and Bibliography I</td>
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</tr>
<tr>
<td>220.02</td>
<td>Reference and Bibliography II</td>
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</tr>
<tr>
<td>320.10</td>
<td>Cataloging and Organization of Library Materials</td>
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<tr>
<td>320.05</td>
<td>Children's Literature</td>
<td>3</td>
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<tr>
<td>420.05</td>
<td>School Library Administration</td>
<td>3</td>
</tr>
<tr>
<td>420.07</td>
<td>Book and Media Selection</td>
<td>3</td>
</tr>
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</table>

150 clock hours of field experience (department chairman must be consulted for information concerning this experience)

Student teaching - 4 S.H. Elementary Education - 4 S.H. Library

Students may select from electives for additional course work.

2. Secondary Teacher-Librarian Majors

<table>
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<th>Course</th>
<th>Description</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>220.01</td>
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<td>3</td>
</tr>
<tr>
<td>220.02</td>
<td>Reference and Bibliography II</td>
<td>3</td>
</tr>
<tr>
<td>320.01</td>
<td>Books for Young Adults</td>
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</tr>
<tr>
<td>320.10</td>
<td>Cataloging and Organization of Library Materials</td>
<td>3</td>
</tr>
<tr>
<td>420.05</td>
<td>School Library Administration</td>
<td>3</td>
</tr>
<tr>
<td>420.07</td>
<td>Book and Media Selection</td>
<td>3</td>
</tr>
</tbody>
</table>

150 clock hours of field experience (department chairman must be consulted for information concerning this experience)

Students teaching in a secondary school library of at least two clock hours daily done consecutively.

Students may select from electives for additional course work.

3. Para-Profession - Liberal Arts Major and Library Science Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>220.01</td>
<td>Reference and Bibliography I</td>
<td>3</td>
</tr>
<tr>
<td>220.02</td>
<td>Reference and Bibliography II</td>
<td>3</td>
</tr>
<tr>
<td>320.10</td>
<td>Cataloging and Organization of Library Materials</td>
<td>3</td>
</tr>
<tr>
<td>420.05</td>
<td>School Library Administration</td>
<td>3</td>
</tr>
<tr>
<td>420.07</td>
<td>Book and Media Selection</td>
<td>3</td>
</tr>
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Electives (Choose 3 courses to complete Library Science Major) 24 S.H.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>320.01</td>
<td>Books for Young Adults</td>
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</tr>
<tr>
<td>320.05</td>
<td>Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>420.10</td>
<td>Reader Services</td>
<td>3</td>
</tr>
<tr>
<td>420.20</td>
<td>Problems of Cataloging Media Materials</td>
<td>3</td>
</tr>
<tr>
<td>420.22</td>
<td>Library Materials and Services for Media Personnel</td>
<td>3</td>
</tr>
</tbody>
</table>

Recommend 6-12 hours of foreign language for those interested in pursuing graduate work in library science.

150 clock hours of field experience in public, school, or college library (department chairman must be consulted concerning this experience).

+Prerequisite for 220.02.
Teacher-Librarian Minors Early Childhood and Elementary

Sem. Hrs.

+220.21 Reference and Bibliography I 3
220.02 Reference and Bibliography II 3
320.05 Children's Literature 3
320.10 Cataloging and Organizing of Library Materials 3
420.05 School Library Administration 3

Electives (choose one course to complete Library Science Minor) 18 S.H.

320.01 Books for Young Adults 3
420.01 Teaching the Use of Books and Libraries 3
420.07 Book and Media Selection 3
420.10 Reader Services 3
420.20 Problems of Cataloging Media Materials 3
420.22 Library Materials and Services for Media Personnel 3

50 clock hours field experience (department chairman must be consulted concerning this experience).

Teacher-Librarian Minors Secondary

Should have same program as above except that they need only 30 clock hours field experience plus at least 2 hours daily practice in a school library during student teaching. Secondary minors must also take 320.01 Books for Young Adults instead of 320.05 Children's Literature.

320.01 Books for Young Adults required for Library Science Secondary majors and minors.

Sem. Hrs.

220.01 Reference and Bibliography I (3 class hours) 3
220.02 Reference and Bibliography II (3 class hours) 3

Prerequisite: 220.01

The objectives are similar to those of Reference and Bibliography I, but designed to extend the student’s knowledge of bibliographic form and reference sources in special subject fields: History and Auxiliary studies; Social Sciences; and the Humanities — through use of a subject approach to the sources of knowledge. Emphasis is placed on a program of reference service and research in the modern school library.

320.01 Books for Young Adults (3 class hours) 3


320.05 Children's Literature and Storytelling 3

Stimulation to know and to enjoy children’s books. Familiarization with types of literature. Adequate knowledge of the historical and social background of distinct types of literature. Attention to the increasing interest in the book illustrations. Evaluative standards for children’s literature in relation to the needs and interests of children at various ages. Techniques for presenting desirable literature to children.
320.10 Cataloging and Organization of School Library and Media Materials (3 class hours)
Methods of acquiring and making use of printed catalog cards and bibliographies as guides to the materials in a school library. Elementary instruction in the principles of preparing simple catalog cards.

420.01 Teaching the Use of Books and Libraries (3 class hours)
Methods and materials for presenting lessons to elementary and secondary students in the use of books and libraries. Examination and evaluation of aids in this field; preparation of plans for the student’s own teaching.

420.05 Administration of School Libraries (3 class hours)
Function of the school library; relationships with the administration, faculty, and students; how to plan a school library unit; publicity for the school library; reporting school library activities; organization and circulation and attendance in a school library. Class discussion and activities based upon the student’s observation and experiences during student teaching.

420.07 Book and Other Media Selection (3 class hours)
Intended primarily as a course in the broad basic principles of selecting materials for school libraries; not a literary approach to specific titles and authors. Designed to serve as a frame of reference for prospective school librarians and teachers who exercise the responsibility for choosing recreational and curriculum related library materials. Basic criteria for selection of books in elementary and secondary school libraries.

420.10 Reader Service for Children and Young Adults (3 class hours)
Study of types of reader services. Interpretation of kinds of service needed based on curriculum and school community. An opportunity to observe services in local libraries. Wide reading, lectures and class discussion, and student projects.

420.20 Problems in Cataloging and Organization of Media Materials (3 class hours)
Prerequisite: 320.10
Consideration of special problems encountered in cataloging and classifying newer forms of “storable” records. Study of variant forms of presentation of print such as microfilm, microfiche, and other media. Study of methods and procedures for acquisition, organization, recording, and servicing materials.

420.22 Library Materials and Services for Media Personnel (3 class hours)
Prerequisites: 313.018 or 313.12
A combination lecture-laboratory experience in which students gain various experiences, creative concepts in: selection; utilization; and, evaluation of non-print materials in a teaching-learning center in elementary and secondary schools. Some attention to cataloging, storage and circulation of this media. Consideration of school-public library relations and services.

420.98 Independent Study (credit varies with assignment)
Prerequisites: 220.02; 420.05 and subject to approval by the Department Head.
Intensive, individual study of a special problem in librarianship. Requirements: continued consultations with assigned professor. Report to be presented in written form. May be repeated by special permission.

Library Experience — Field Work
Library experience — practical field work (arrangements to be made through library science department office prior to second semester Freshman year). All library science students are required to participate in a program of practical library experience during their first three academic years. This practical experience begins each Fall at the Anthel 0 Junior High-Elementary School, Grant Elementary School, Lawrence Intermediate School, and Cadwalder Elementary School. Students matriculating in a MAJOR library science program, Elementary School Teacher-Librarian, Secondary School Teacher-Librarian or Para-Professional are expected to...
complete 150 clock hours of practical experience prior to their senior year. Kindergarten-Primary, and Elementary students **minoring** in library science are required to complete 50 clock hours prior to their senior year. Secondary students **minoring** in library science are required to complete 30 clock hours of field experience and in addition are assigned to do at least 2 hours daily practice in the school library during the quarter in which student teaching is assigned.

**Library-Media Center Orientation**

This program is designed for students interested in operating and supervising the library-media service, in becoming librarian-media center aides or assistants. The program encompasses dial access, special disc recordings, tapes, films, computer-assisted instruction, individualized instruction, programmed learning and educational television. Training is provided in the organization and operation of wet carrels (those which have various types of electronic equipment).

Interested students are urged to consult their advisors or the Departments of Library Science and Instructional Media for information on course requirements and certification.

**LINGUISTICS**

(Interdisciplinary Minor)

**Interdepartmental Committee:**

Professors: Beechhold*, Chairman; Cummings, Heap*, Hohmuth, Kane

**Program Advisers**

The implications of language are social, cultural, philosophical, psychological, and artistic. It may not be too much to say that language is the central fact of human behavior. The Linguistics Minor will open the door to this basic and fascinating study through a series of courses designed to enhance the current programs of many if not most academic majors.

<table>
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<tr>
<th>Sem. Hrs.</th>
<th>Course</th>
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<tbody>
<tr>
<td>3</td>
<td>214.43 Descriptive Linguistics</td>
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<tr>
<td>3</td>
<td>214.45 Historical Linguistics</td>
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<td>6</td>
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</table>

and 12 sem. hrs. from at least three of the following groups. No more than 6 sem. hrs. of the entire minor may be applied concurrently toward fulfillment of course requirements of any major. See departmental listings for detailed course descriptions.

**A. Phonetics and Phonology:**

| 3         | 238.15 Applied Phonetics          |
| 3         | 228.15 Acoustic Phonetics         |
| 3         | 228.25 Speech and Hearing Science|
| 3         | 328.03 Language and Speech Development|

**B. Sociolinguistics:**

| 3         | 238.35 American Dialects and Linguistic Geography|

**C. Grammatical Theory:**

| 3         | 314.04 Introduction to Grammatical Theory|

**D. Applied Linguistics:**

| 3         | 314.03 Introduction to Applied Linguistics|

**E. Semantics:**

| 3         | 338.36 Semantics                  |

**F. Philosophy of Language**

| 3         | 324.30 Philosophy of Language     |

**Total:** 18
The curriculum is designed to enable the student to follow any one of four optional programs: preparation to teach mathematics in the secondary school, preparation for graduate study in mathematics, preparation to enter industry, or preparation to enter the computer field.

The first two years of the mathematics program are basically the same for all options and provide a strong, basic mathematical background. In the junior and senior years the proper choice of courses enables the student to follow one of the following programs:

**Mathematics Teaching Program** — Starting with the junior year the student who chooses this option takes the professional courses which are designed to introduce him to teaching and which culminate in the senior student teaching experience. At the same time 21 semester hours of upper-level mathematics courses are taken. This program qualifies the student for New Jersey certification to teach mathematics in the secondary school.

**Liberal Arts Program** — This program requires a minimum of 24 semester hours of upper-level mathematics courses which are all elective. Each student will develop a program, through advisement, according to his interests and reflecting his purpose.

**Computer Science Program** — Starting in the junior year the mathematics major interested in entering the computer field will take upper-level courses in both mathematics and computer science. A student who expects to choose this option should start his program by taking 221.15, Introduction to Computer Science I, prior to his junior year.

### Mathematics

**First Year**

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**Total for Year** 30

**Second Year**

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**Total for Year** 30-32

*See p. 30 for swimming requirement.
**Liberal Arts and Computer Science majors are advised to defer Liberal Studies Science requirement until Junior or Senior year.
***Liberal Arts and Computer Science majors are required to take 6 s.h. of a Foreign Language.
Computer Science majors should take 221.15 in the second year.
### Mathematics Education Program

**Third Year**

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**Fourth Year**

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### Liberal Arts Program

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**Fourth Year**

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### Computer Science Program

**Third Year**

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Courses selected, through advisement, toward the graduate study option or the industry option.

'May be used to meet Liberal Studies Science requirement.

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### Mathematics Minor

A student wishing to develop a minor in mathematics should follow either Program A or Program B as listed below:

**Program A**
- **Liberal Studies requirement:**
  - 121.01 and 121.02
- **Distribution requirement:**
  - 3 s.h. in *Analysis* selected from courses such as 121.25-26, 121.27-28, 221.01, and 221.02
  - 3 s.h. in *Algebra* selected from courses such as 221.05 or 221.06
  - 3 s.h. in either *Geometry, Computer Science, or Probability and Statistics*, selected from courses such as 321.10, 321.51, 221.15, or 321.16
- **Mathematics electives:**
  - 6 s.h. in courses selected from 121.26, 121.28 or courses numbered 200 and above

**Program B**
- 121.25 or 121.27 plus any other course listed below will complete the Liberal Studies requirement.
- **Distribution requirement:**
  - 3 s.h. in *Algebra* selected from courses such as 221.05 or 221.06
  - 3 s.h. in either *Geometry, Computer Science, or Probability and Statistics*, selected from courses such as 321.10, 321.51, 221.15, or 321.16
- **Mathematics electives:**
  - 9 s.h. in courses selected from 121.26, 121.28 or courses numbered 200 and above

**Note:**
- *More advanced courses may be selected with advisement.
- **Courses 221.11, 221.12 and 221.13 are acceptable only in the minor program in elementary school mathematics for students who are majoring in Early Childhood or Elementary Education.

For a second Teaching Field for Secondary Teachers:
Add 313.48 Methods of Teaching H. S. Math 2 s.h.

---

**121.00 Elementary Functions (3 class hours)**
This course is prerequisite or corequisite to Calculus I for students who have not passed a placement examination. Topics include: elementary logic; sets; functions, including trigonometric functions; mathematical induction.
121.01 Foundations of Mathematics I (3 class hours)
Liberal studies course. Development of an understanding and appreciation of the nature of mathematics and the role of mathematics in human affairs. Topics: Elementary Logic, Sets, Relations and Functions.

121.02 Foundations of Mathematics II (3 class hours)
Prerequisite: 121.01
Liberal studies course. Continuation of 121.02. The three major topics, selected to complement the first course are: Mathematical Systems, Probability, and the Limit Concept.

121.03 Introduction to Number Theory (3 class hours)
Prerequisite: 121.01
Liberal studies course. Provides additional experience with techniques of mathematical study while exploring the familiar set of natural numbers.

121.05 Introduction to Finite Mathematics (3 class hours)
Prerequisite: 121.01
Liberal studies course. Most demanding of the liberal studies courses. Should be taken only by students who were above average in 121.01. Emphasis on probability and its role in shaping human affairs.

121.08 Elements of Computing (3 class hours)
Liberal studies course. Capabilities and limitations of computers. A suitable computer language will be studied, and later used to program problems in two or three specific areas of computer usage.

121.11, 121.12, 121.13 Introduction to Mathematics I, II, III (3 class hours for each of three semesters.)
Development of an understanding and appreciation of the nature of mathematics and the role of mathematics in human affairs. Topics include: Logic, sets, relations and functions, mathematical systems, probability, and the limit concept. This course is related to 121.01 and 121.02 Foundations of Mathematics I and II.

121.15 Statistics (3 class hours)
Prerequisite: 121.00 or 121.01
Liberal studies course. Designed to enable the student to become an intelligent "consumer" of statistics. Topics include: frequency distribution, central tendency, dispersion, sample theory, correlation. Mathematical basis of these concepts investigated from an elementary point of view.

121.25-26 Introduction to Calculus I, II (3 class hours for each of two semesters)
Recommended for biological science, economics and industrial technology majors. Relevant concepts and applications of differential and integral calculus with Cartesian Geometry will be developed intuitively. Topics include: Algebraic, transcendental, and hyperbolic functions; extrema; rates; geometric, physical and industrial applications.

121.27-28 Calculus I, II (3 class hours for each of two semesters)
Prerequisite: Placement examination or 121.00 taken concurrently.
Required for mathematics and physics majors, suggested for chemistry majors. The first two semesters of a basic four semester sequence in calculus which provides the concepts and techniques needed for many higher level mathematics and science courses. Analytic geometry will be used to illustrate these techniques. Topics include: limits and derivatives, differentiation of algebraic functions, mean value theorem and related topics, conic sections, definite integral, differentiation of transcendental functions, inverse of differentiation.

221.01-02 Calculus III, IV (3 class hours for each of two semesters)
Prerequisite: 121.26 or 121.28
Continuation of Calculus I, II. Topics include: inverse of differentiation, relation between antiderivatives and integrals, vectors and parametric equations, infinite series, partial differentiation, multiple integrals, line and surface integrals, integral as a function of a parameter.
221.05-06 Introduction to Modern Algebra I, II (3 class hours for each of two semesters)

Prerequisite: Mathematics major or minor or permission of instructor.
A first course in abstract algebra. Introduces the student to selected topics in algebra, presenting the material in a rigorous fashion. Topics include: Groups, rings, fields, modules, and vector spaces.

221.11 Structure of the Real Numbers (3 class hours)

Prerequisite: 121.02
Designed for prospective elementary school teachers who desire a minor in elementary school mathematics. Structural properties of the real numbers viewed as successive extensions of the natural numbers.

221.12 Algebraic Concepts and Structures (3 class hours)

Prerequisite: 221.11
Designed for prospective elementary school teachers who desire a minor in elementary school mathematics. Basic algebra from an advanced viewpoint. Topics include: Linear and quadratic equations and inequalities, analytic geometry, problem solving, complex numbers.

221.13 Geometric Concepts and Structures (3 class hours)

Prerequisite: 121.01
Designed for prospective elementary school teachers who desire a minor in elementary school mathematics. Basic geometric subject matter from an advanced point of view. Topics include: Inductive and deductive geometry, sets, sets of points in the plane and space, congruence, measurement, parallelism, geometric constructions, plane coordinate geometry, geometry of transformations.

221.15 Introduction to Computer Science I (3 class hours plus laboratory)

Formerly called Digital Computer Programming. First of a sequence of courses in computer science. Students learn a programming language, such as FORTRAN, then use the language to solve problems. Designed for students who (i) have a strong high school mathematics background, or (ii) have passed 121.00 without difficulty, or (iii) have done extremely well in 121.01 and 121.02. Those enrolled in this course should set aside several hours per week to work on programming assignments in the computer center.

321.01 Switching Theory and Automata (3 class hours)

Prerequisite: 221.15
Design of logical devices: Switching algebra, minimization, sequential circuits, finite state automata.

321.05 Differential Equations (3 class hours)

Prerequisite: 221.01
Special methods for the equations of the first order; linear equations of the second order; general linear equations; the method of successive approximations; systems of ordinary equations; interpolation and numerical integration.

321.09 Introduction to Modern Algebra II (3 class hours)

Prerequisite: 221.08
Final year offered. Available only to students who have already begun the discontinued algebra sequence. Topics include: Rings, quotient fields, ideals, polynomials, and vector spaces. Course will replaced in future years by 321.07, Introduction to Modern Algebra III.

321.10 Elementary Vector Geometry (3 class hours)

Prerequisite: Mathematics major or minor or permission of instructor
The elements of vector algebra are developed, and vector methods are used to prove theorems of geometry and trigonometry. Topics include: inner products, cross products, coordinate systems, the complex plane, and linear inequalities.
321.16 Introduction to Probability (3 class hours)
Prerequisite or corequisite: 221.02
Mathematical models, sample spaces, simple probability distributions, permutations and combinations, marginal and conditional probability, discrete and continuous probability distributions and their characteristics, generating functions, multivariate distributions.

321.30 Introduction to Computer Science II (3 class hours)
Prerequisite: 221.15
Formerly called Computer Language and Usage. Second of a sequence of courses in computer science. Study of an assembly language to familiarize the students with machine organization and problems of efficient programming at the most basic level. Higher level languages such as ALGOL, PL/I, and APL will be studied.

321.50 Topics in Undergraduate Mathematics (3 class hours)
Prerequisites: 221.02; 221.06 or 221.08
A flexible course; further study of one or more areas of mathematics which are accessible on the undergraduate level but are not treated in depth in other courses.

321.51 Geometry (3 class hours)
Prerequisite: Mathematics major or minor or permission of instructor
The course presents geometry as a branch of contemporary mathematics involving the interrelated study of many specific geometrical systems, which are characterized by properly chosen postulate systems. Topics to be included: Euclid’s Fifth Postulate, Neutral geometry, euclidean geometry, non-euclidean geometry, consistencies of euclidean and non-euclidean geometries.

321.97 Independent Study in Computer Science
Prerequisite: By invitation only.
The student will study independently a selected area of computer science through the use of source books and journal articles. A member of the mathematics department will be chosen to advise the student.

321.98 Independent Study in Mathematics
Prerequisite: By invitation only.
The student will study independently a selected area of mathematics through the use of source books and journal articles. A member of the mathematics department will be chosen to advise the student.

421.02-03 Advanced Calculus I, II (3 class hours for each of two semesters)
Prerequisite: 221.02
A logical development of analysis. Topics include continuous functions, extensions of the law of the mean; functions of several variables, general theorems of partial differentiation; implicit-function theorems, vectors and vector fields, line and surface integrals, the theory of integration.

421.05 Introduction to Topology (3 class hours)
Prerequisite: 221.06 or 221.07
An introduction to point set topology. Typical topics: Topological Spaces, open sets, closed sets, continuous functions connected sets, compact sets, Cartesian products, homology, homotopy.

421.08 Linear Algebra (3 class hours)
Prerequisite: 221.06
Further study of vector spaces, developed as a branch of algebra. Applications to other parts of mathematics. Topics include: Vector spaces, linear transformations and matrix representation, determinants, eigenvalues and eigenvectors, inner product spaces, spectral theorem, Jordan normal form, bilinear forms.

421.10 Introduction to Mathematical Statistics (3 class hours)
Prerequisite: 321.16
The theory of sampling; the law of large numbers; the central limit theorem; the normal approximations to the Binomial and Poisson distributions; the Chi Square
distribution; the F distribution; estimation of population parameters; hypothesis testing; confidence methods; regression analysis; factorial designs; some techniques of experimental design; sampling inspection and sequential analysis; nonparametric methods.

421.15 Introduction to the Theory of Infinite Series (3 class hours)
Prerequisite: 221.02
An investigation of infinite sequences and infinite series to serve as a basis for higher analysis. Topics include: Sequences, series, convergence and divergence, power series, elementary functions.

421.20 Introduction to Complex Variables (3 class hours)
Prerequisite: 221.01
Logical development of the classical theory of functions of a complex variable with emphasis on those parts which are most used in modern applications. Topics include: complex numbers, analytic functions; exponential, trigonometric, hyperbolic, and logarithmic functions and their inverses; mapping by elementary functions; integrals, the Cauchy-Goursat theorem, the Cauchy integral formula; derivatives of analytic functions; the fundamental theorem of algebra; power series; residuals and poles; isolated, essential and removable singularities.

421.25 Numerical Mathematics I (3 class hours)
Prerequisites: 221.02, 221.15.
An introduction to approximation methods including finite differences and interpolation, numerical differentiation and integration.

421.26 Numerical Mathematics II (3 class hours)
Prerequisites: 321.05, 421.25
A continuation of Numerical Mathematics I. Topics include: Linear programming; numerical solution of algebraic equations, difference equations, ordinary differential equations and partial differential equations.

421.33 Data Structures (3 class hours)
Prerequisite: 321.30
Techniques in organizing data for solving programming problems. Topics include: Lists, stacks, trees, storage allocation and recovery, use of data structures for sorting and symbol table operations.

421.34 Introduction to Systems Programming (3 class hours)
Prerequisites: 321.30, 421.33
Theory and practice of designing and implementing compilers, assemblers, interpreters, monitors, loaders, and other system software which facilitate the writing and execution of programs.

421.35 Introduction to Operations Research (3 class hours)
Prerequisites: 221.15, 421.08, 421.10
Introductory study into the mathematical theory and techniques of Operations Research. Topics include: Optimization, linear programming, games, transportation problem, traffic theory, transshipment problem, inventory control, search theory, decomposition principle, dynamic programming and stochastic models, Monte Carlo techniques, theory of queues.

421.40 Mathematical Logic (3 class hours)
Not open to freshman.
Principally concerned with Propositional Calculus and First Order Logic, two mathematical languages that abstract many of the patterns of logical thought. The two languages are defined and applied to reasoning problems. Discussion of metatheorems dealing with the properties of soundness, completeness, decidability and consistency.

421.50 Honors Course in Mathematics
Prerequisite: By invitation only.
Accelerated and more sophisticated treatment of standard or advanced topics for
carefully selected students. Students will receive 3 to 6 credits per semester based upon the extent of this course, in addition to exemptions from the regular courses whose syllabi have been covered.

421.97 Seminar in Computer Science (3 class hours)
Prerequisite: Permission of the instructor.
Investigation of selected areas of the field of computer science through the use of journal articles and monographs, and solution of problems which may be outside the scope of other courses.

421.98 Seminar in Mathematics (3 class hours)
Prerequisite: Permission of the instructor.
Intensive study of an advanced topic or topics in a small group. Emphasis is on student participation which will usually include readings in journals, monographs and textbooks; lectures; discussions; and solutions of problems.

313.023 Teaching Modern Mathematics in the Elementary Grades (2 class hours)
Prerequisite: 121.01.
Combination of a methods course and a professionalized subject matter course. Development of arithmetic as a deductive system with an emphasis on developing an understanding of the basic operations. Organization of materials for effective teaching sequence. Problem solving, diagnostic work, and testing.

313.063 Mathematics in Early Childhood Education (2 class hours)
Prerequisite: 121.01.
Combination of a methods course and a professionalized subject matter course. Emphasis on developing an understanding of the basic operations of arithmetic with special attention to the concepts usually developed in the lower grades. Materials and visual aids organized for effective teaching. Readiness, problem solving, diagnostic work and testing.

313.48 Methods of Teaching High School Mathematics (2 class hours)

313.25 Junior Professional Experience for Secondary Education Majors.
See Educational Field Experience.

413.01 Student Teaching (full time — 9 weeks)
See Educational Field Experience.

INDUSTRIAL EDUCATION AND TECHNOLOGY

Professors: Thower, Chairman; Coughlin, Kruppa, Lockette
Associate Professors: Alexander, Asper, Brown, Dresser, Johnson, Ruggles, Shih, Smith
Assistant Professors: Edelbach, Hess, Oakley, Wasdyke
Instructors: Bittner, Laws, Nichols, O'Brien

The Department of Industrial Education and Technology is a multi-purpose department which offers programs in technology as well as in industrial education. Within the industrial education program the student has the option of two tracks. The industrial arts option prepares students for a career as teachers of industrial arts in the public schools while the vocational-industrial option prepares students to teach specific vocational subjects in the secondary schools and technical institutes.

The technology programs offered currently in this department are in the fields of electrical, industrial, and mechanical technology. These programs are non-teaching degree programs which prepare students to enter industrial employment at the professional level.
The purpose of this program is to prepare teachers of industrial arts for the public school system. Upon completion of this approved program the individual qualifies for New Jersey certification to teach industrial arts.

### First Year*

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*See p. 30 for swimming requirement.

**May be used to fulfill Arts and Humanities requirements.
The purpose of this program is to prepare vocational industrial teachers for the public school system, teachers capable of perpetuating and improving vocational industrial education in the State of New Jersey.

### First Year*

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Total for Year 30

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Total for Year 33

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Total for Year 33

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Total for Year 28

*May be used to fulfill Arts and Humanities requirements.

*See p. 30 for swimming requirement.
The objective of the Electronics Technology Curriculum is to provide the student with a broad science and mathematics background coupled with electronics principles and knowledge of applications and experiences needed to enter into the professional employment level in the electric and electronics industry.

### First Year*

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*See p. 30 for swimming requirement.

**May be used to fulfill Arts and Humanities requirements.

***May be used to fulfill History and Social Science requirements.
The Industrial Technology Curriculum is designed to prepare the student for the "World of Manufacturing" where production is the key work. The program is developed around the principles and theories in the physical sciences and mathematics.

First Year

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Introduction to Calculus I
Basic Electricity-Electronics
Arts and Humanities
Machine Drawing

Total for Year 31

Second Year

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Technical Writing
General Metals I
Statistics
Arts and Humanities
Electives

Total for Year 31

Third Year

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Manufacturing Process
Industrial Design
Labor Economics
Free Electives
Industrial Management II

Total for Year 32

Fourth Year

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Production and Inventory Control
Industrial Safety and Maintenance
History or Social Science
Speech I

Total for Year 30

*See page 30 for Swimming requirement.
**May be used to fulfill Arts and Humanities requirements.
***May be used to fulfill History and Social Science requirements.
The Mechanical Technology Curriculum is designed to provide the student with a background in mathematics and science and the application of fundamental principles to the study of machine design, tool design, refrigeration equipment, industrial instruments and industrial hydraulics and pneumatics.

### First Year

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<td>Introduction to Business</td>
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* See page 30 for swimming requirement.

** May be used to fulfill Arts and Humanities requirements.

*** May be used to fulfill History and Social Science requirements.
119.02 Basic Woodworking (6 class hours)  
Introduction to wood technology. Design and construction in wood, with hand tools and machines. Study of essential materials, woods, adhesives, fasteners, finishers, woodworking procedures, tool maintenance and safety procedures.

119.05 Graphic Representation (6 class hours)  
Study of engineering graphics as a language and a tool of industry. Free hand drawing, orthographic projection and basic descriptive geometry. Axonometric drawings, developments and intersections. Basic dimensioning and reproduction of working drawings.

119.15 General Industrial Arts (4 class hours) Not Open to I.A. Majors  
Liberal Studies course available to students of any curriculum. Demonstrations, discussions, and practical application of common tools and materials. Development of appreciation of industry through activities using woods, metals, leather, plastics, and other materials by planning and making useful projects.

119.20 Graphic Arts I (6 class hours)  
Introduction to the processes, equipment and materials of the Graphic Arts Industry. Laboratory experiences will include relief, intaglio, planographic and stencil printing, copy preparation and photography. The importance of graphic arts as a vital communication media will be stressed.

119.25 Creative Design (4 class hours)  
Application of basic principles of design in furniture and other consumer items. Cultivation of respect for design as a creative and pleasing solution to problems involving industrial tools, materials, and processes. Available to students of any curriculum.

213.35 Tools and Materials K-6 (4 class hours) Not Open to I.A. Majors  
Developing knowledge and skills with basic hand tools and their applications as an aid to classroom teaching. Emphasis on selecting and developing construction activities appropriate to the curriculum of the various grade levels. Making abstract concepts meaningful through industrial arts activities.

213.36 Foundations of Practical Arts and Vocational Education (3 class hours)  
The philosophical and psychological basis of practical arts and vocational education in contemporary American life is studied along with an examination of historical roots, present values, objectives and contributions. Industrial education curriculums are reviewed. Their relationship to one another and their role in American education is examined. The student is introduced to the fundamentals of content selections and course organization.

219.01 General Metals I (6 class hours)  
This course is concerned with an introduction to the basic tools, processes and materials of the metals industry. Fundamental hand tools and machine operations are discussed in depth. Basic instructional units include: sheet metal, foundry, welding, machining, bench metal, forging, metal spinning, metal analysis, heat treating and finishing.

219.03 Power Mechanics I (6 class hours)  
Power Mechanics I is designed to be an introductory course to the broad field of power. Power units and accessories common to land, marine, and air transportation will be studied and compared. Emphasis will be placed on understanding through study and manipulative experiences with modern power units in the power laboratory. Experiences with power units will deal with assembly and disassembly procedures, testing diagnosis, and service, power measurement and safety considerations.

219.04 Contemporary Metals Processes (6 class hours)  
Prerequisite: 219.01 or consent of instructor.  
Advanced work with metal fabrication and forming, metallurgy, heat treating and new industrial processes.
219.05 Hydraulic and Pneumatics Systems (6 class hours)
A study of hydraulic and pneumatic systems as a means of transmitting and controlling power; component identification and operation, fluid power graphical symbols, circuits, and applications.

219.06 Machine Drawing (6 class hours)
Prerequisite: 119.05 or consent of instructor.

219.12 General Crafts (6 class hours)
Course intended to develop some background of information and a measure of skill in working with a number of craft media to create a variety of craft items. Items produced require designing and the basic essentials for working in wood, sheet metals, tile, glass, leather, plastic twine, rope, "nature materials" (twigs, branches, nuts, shells, etc.) — useful for teaching purposes and for advocational interests.

219.16 Basic Electricity-Electronics (6 class hours)
Study of electricity in motion, generation distribution and use. Use of measuring instruments for current, voltage, resistance, inductance, and capacitance. Introduction to vacuum tubes and solid state devices. Study of electrical devices such as motors, rectifiers, transformers and controls. Application of theory to public school industrial arts.

219.18 Lithography (6 class hours)
Prerequisite: 119.20 or consent of instructor.
Developing understanding and experience in the lithographic technology.

219.19 Ceramics-Plastics I (6 class hours)
Familiarization with the materials, tools, processes of production and development of the ceramics and plastics industries. Emphasis on duplicating or adapting industrial procedures.

219.21 General Photography (5 class hours) Not Open to I.A. Majors
Principles and practices of general photography, emphasis is placed on candid, portrait and pictorial photography and the role of photography as a means of visual communication. Activities will include picture taking, processing, enlarging, and photo finishing.

219.22 Photography in the Graphic Arts (6 class hours)
Prerequisite: 119.20 or consent of instructor.
The study of photography in both scientific and aesthetic terms. Experience in taking photographs, printing, and mounting of pictures, lighting techniques and special processes.

219.24 Power in Transportation and the Home (4 class hours) Not Open to I.A. Majors
Understanding of basic functions of internal combustion engines in home power equipment, such as lawnmowers, outboard motors, and emergency portable power generators. Selection, care, and maintenance of the automobile.

219.26 Radio Communication (6 class hours)
Prerequisite: 219.16 or consent of instructor.
Principles of radio transmission and reception, operating practices and FCC regulations, licensing procedures, introduction to international morse code.

219.71 Strength of Materials (3 class hours)
Prerequisite: Calculus 121.26 or consent of instructor.
A study of the effects of forces as applied to material, the stress they produce and the deflections and deformations which result.

313.44 Junior Professional Experience in Industrial Education (4 class hours)
Observation and limited participation as a teacher aid in local public school in-
313.47 Content and Methods in Practical Arts and Vocational Education (3 class hours)
Methods of teaching, safety, and evaluation are studied in relation to the objectives. Selection and organization of subject matter and development of programs and courses of study in practical arts and vocational education are the basis of activities in this course.

319.03 Architectural Design and Drafting (6 class hours)
Prerequisite: 119.05 or consent of instructor.
General education in the field of architecture. An analysis of designing and the construction of a building, including specifications, cost estimation, financing, landscaping and construction aspects. Examination of pre-fab, apartment and mobile homes. An analysis of contemporary architecture including city planning, technology of materials, foreign architecture, and commercial architecture.

319.12 Applied Electronics (6 class hours)
Prerequisite: 219.16 or consent of instructor.
A study of the characteristics of electronic components, tubes, and semiconductors, circuits and systems. Laboratory techniques involving tests, measurements, evaluation and industrial application will be investigated.

319.14 Introduction to Television (6 class hours)
Prerequisite: 219.16 or consent of instructor.

319.19 Applied Structural Design (6 class hours)
Prerequisite: 119.02 or consent of instructor.

319.21 Structural Drafting (6 class hours)
Prerequisite: 119.05 or consent of instructor.
Study of strength of materials used in construction. Force diagrams and their application to structures supporting loads. Study of column, girder, lintel and truss design, and construction. Design, construction, test of model structures. Examination of industrial testing facilities.

319.22 Relief and Screen Process (6 class hours)
Prerequisite: 119.20 or consent of instructor.
This course, as part of the Industrial Education and Technology program, enables the student to participate in a creative investigation and be acquainted with the processes of relief printing, its composition, imposition and production. He is also acquainted with the basic screen process of printing including materials, processes, procedures and industrial applications.

319.23 Production Illustration (6 class hours)
Prerequisite: 119.05 or consent of instructor.
Freehand sketching, line and surface shading in perspective and axonometric projections. Exploded views, pictorial detail and assembly drawings. Use of pencil, ink, water color, air brush techniques, pantograph, and other mechanical aids. Paste-ups and finished illustrations.

319.24 Power Mechanics III (6 class hours)
Prerequisite: 219.03 or consent of instructor.
Power Mechanics III consists of major overhauls, testing, diagnosis and adjustment of automotive electrical and fuel components. Included is an introduction to trouble shooting.
to steering geometry, steering gear operation and adjustment and the procedures for wheel balancing and alignment. An introduction to the dynamometer and rotary combustion engines will also be included in this course.

319.26 **Machine Woodworking** (6 class hours)
*Prerequisite:* 119.02 or consent of instructor.
Developing an advanced understanding of woodworking machinery. Furniture problems undertaken involving a maximum use of power tools. Developing skill in adjustment, use, and maintenance of machine tools. Application of jigs and fixtures.

319.32 **Problems in Production Printing I** (6 class hours)
*Prerequisite:* 119.20 or consent of instructor.
A problems approach in developing insight into the production of the printed word in quantity. Laboratory management, job analysis, cost accounting, production methods, layout and design, hot and cold composition, lithographic photography, platemaking, presswork and finishing will be investigated in depth.

319.37 **Machine Tool Technology** (6 class hours)
*Prerequisite:* 219.01 or consent of instructor.
Advanced work with theoretical and practical aspects of the machine tool area. Special job setups and operations concerning the metal lathes, mills, shapers, drill presses and grinders.

319.40 **Hot Metals** (6 class hours)
*Prerequisite:* 219.01 or consent of instructor.
Advanced study of the various metal processes requiring the application of heat. Major emphasis will be in the areas of welding and foundry, with limited coverage of such topics as forging and heat treating. The area of welding will include the fusing of all common metals and the testing of the materials welded. The foundry area will include the study of various molding and casting techniques.

319.41 **General Welding** (6 class hours)
*Prerequisite:* 219.01 or consent of instructor.
Welding of common metals by electric arc and oxyacetylene processes. Operation of gauges, tanks, torches and various kinds of welding equipment with emphasis on modern safety practices. Technology of materials of the welding industry. Development of welded projects for industrial arts classes.

319.43 **Power Mechanics II** (6 class hours)
*Prerequisite:* 219.03 or consent of instructor.
The application of science and math to the transmission of power and its utilization in transportation stationary power equipment. Fluids as they relate to power transmission and control.

319.47 **Ceramics-Plastics II** (6 class hours)
*Prerequisite:* 219.19 or consent of instructor.
Intensive study of the ceramics or plastics industry. Study of the processes of production, importance of the respective industry in our culture, and duplication of industrial processes or development of aids and equipment to facilitate duplication of industrial processes.

319.49 **Art Metal, Jewelry and Lapidary** (4 class hours)
Study of tools, materials, and processes used with sheet copper, brass and silver. Design and production of jewelry, including centrifugal casting and lapidary, using precious and semi-precious metals.

319.51 **Workshop in Industrial Education** (2-12 class hours)
*Prerequisite:* Consent of instructor.
An advanced course devoted to technical experiences in industrial education including laboratory and theoretical study. It is designed to increase an individual's effectiveness as a teacher of industrial education by providing him with specific experiences in specialized areas made necessary by changes in technology. Approval to enroll in the course is granted by the department chairman upon the recommendation of a faculty advisor.
319.52 Industrial Materials and Processes (6 class hours)
Prerequisite: 134.18 or consent of instructor.
Applications and characteristics of the materials and major processes most commonly used in industry by which materials may be shaped or formed. Studies are conducted with emphasis on research and laboratory activities centered about such materials as ceramics, metal, plastics, wood and industries such as transportation, textiles, petroleum and chemical.

319.53 Technical Writing (3 class hours)
Training in practical writing for industry, business, and research, with emphasis on the special requirements and techniques for the professional report.

319.55 Vocational Guidance (Industrial Education) (3 class hours)
An overview of definitions, concepts and problems connected with vocational guidance in the school program; guidance, evaluation and follow-up techniques utilized by vocational teacher.

319.56 Residential Construction Technology (6 class hours)
Prerequisite: 119.02 or consent of instructor.
The course provides an opportunity to learn and apply basic knowledges and skills of the construction industry. Students read and discuss the practices which are required to build residential wood frame structures. Such concepts are then applied and made meaningful through laboratory activities. Exploration of occupational opportunities in residential construction will be covered in the course.

319.58 Introduction to Manufacturing Technology (6 class hours)
Prerequisite: All basic I.A. labs.
A course designed to familiarize students with the managerial and organizational principles and functions of manufacturing enterprises. To include concepts of management technology, production technology and personnel technology. Students will make application of these concepts through the organization and developments of an instructional package for implementation in the public schools.

319.59 Application to Manufacturing Technology (6 class hours)
Prerequisite: 319.58 or consent of instructor.
A synthesis course making application of concepts of manufacturing management, personnel, and production technology through the design, development and production of products in a student organized enterprise. Study of modern mass production and automation techniques and systems. Methods of interpreting industry in industrial arts laboratories.

319.61 Communication Systems (6 class hours)
Prerequisite: 319.83 or consent of instructor.
Forms of communication; modular and transmission of radio frequency energy. Tuning circuits, calculation of gain; sinewave oscillators, heterodyne circuits, detectors, TRF and superheterodyne receivers.

319.62 Civil Engineering Technology (6 class hours)
Prerequisite: 319.56 or consent of instructor.
A course which focuses on commercial construction, civil engineering construction, and city and regional planning. Emphasis is placed on use of steel, aluminum, glass, and concrete for constructing commercial superstructures, highways, bridges, dams, tunnels, and other civil structures. Basic experiences in city and regional planning are explored.

319.63 Industrial Materials (6 class hours)
Prerequisite: 134.18 or consent of instructor.
The study of production and engineering materials such as plastics, ferrous and non-ferrous materials, ceramics, synthetics, forestry products, rubber, artificial materials, elastomers, and various organic finishing materials. The source of these materials and their pre and post processing, and a study of the strengths of the materials and their application in laboratory experiments.
319.64 Metallurgy (6 class hours)
Prerequisite: 134.18 or consent of instructor.
A study of metal structure, metallurgical examination, plastic deformation, phase diagrams, heat treatment, ferrous and non-ferrous alloys, wear, corrosion. Powder, welding and foundry metallurgy.

319.71 Design of Hydraulic and Pneumatic Systems (6 class hours)
Prerequisite: 134.18 and 121.26 or consent of instructors.
A study of compressible and non-compressible fluid as a means of transmitting and controlling power; component identification and operation, fluid power graphical symbols, circuits and applications.

319.72 Thermodynamics (6 class hours)
Prerequisite: 134.18 or consent of instructor.
The fundamentals of thermodynamics including application of the first and second laws. Study of enthalpy, entropy, reversible and irreversible processes.

319.73 Statics and Dynamics (3 class hours)
Prerequisite: 134.17 (or concurrent), 121.25 or consent of instructor.
Statics of force systems by analytical methods, emphasis on stress forces on structural members; linear and angular motion caused by constant and variable forces; impulses; momentum; energy. The free body diagram is stressed.

319.74 Instrumentation (6 class hours)
Prerequisite: 134.18 or consent of instructor.

319.81 Electronic Circuit Design (6 class hours)
Prerequisite: 319.12 or consent of instructor.
Principle and applications of network analysis as applied to electronic and electronic circuits. Special emphasis to be placed on mesh and modal analysis and other network theories as applied to AC and DC circuits.

319.82 Microwave Principles (6 class hours)
Prerequisite: 319.83 or consent of instructor.
A study of the fundamentals of microwave circuits, including elementary field theory, transmission lines, waveform information and microwave devices.

319.83 Transistor Electronics (6 class hours)
Prerequisite: 319.81 or consent of instructor.
Introductory course in transistor theory and applications, including data interpretation, measurement techniques, and circuit analysis. Laboratory techniques involving tests, measurements, evaluation and industrial applications.

319.84 Electronical Machinery (6 class hours)
Prerequisite: 319.81 or consent of instructor.

419.07 Descriptive Geometry (6 class hours)
Prerequisite: 119.05 or consent of instructor.
Study of the principles of descriptive geometry as a language and a tool of industry. Plane-line relationship, parallel and perpendicular relationships, angular relationships, cones, cylinders, circles and ellipse construction. The application of descriptive geometry principles in industrial problem solving.

419.11 Advanced Wood Processing (6 class hours)
Prerequisite: 119.02 or consent of instructor.
Developing a deeper understanding of the properties of woods, making them suit-
able for a special industrial processing; veneering, bending, laminating, moisture testing, wood stabilization. Research and experimentation projects employing these processes with emphasis on the tools, equipment and materials available for use in the public schools.

419.12 Cabinet Making and Furniture Construction (6 class hours)
Prerequisite: 319.26 or consent of instructor.
Construction and finishing of a cabinet or other piece of fine furniture. Developing appreciation for design, the details of thorough construction, and modern finishing processes.

419.14 Power Mechanics IV (6 class hours)
Prerequisite: 219.03 or consent of instructor.
Advanced problems in carburation, electronic ignition and charging circuits. Turbo and diesel power as it applies to transportation, instrumentation and accessories.

419.16 Industrial Design (6 class hours)
Prerequisite: 119.25 or consent of instructor.
Creative problem solving with emphasis on industrial products. Study and evaluation of design concepts of significant industrial designers and visits to design centers in the New York-Philadelphia area.

419.18 Cooperative Industrial Experience (2 to 12 class hours)
Planned cooperative industrial work experience in selected industries. Development of depth of understanding of industry through observation and participation in a typical industrial assignment.

419.20 Occupations Laboratory for Special Education (4 class hours)
Prerequisite: 213.35 and 229.01 or consent of instructor.
Integrated course for special education and industrial arts majors. Team teaching approach. Explanation of the world of work through actual experience with the processes, tools, and materials of the various occupational families; i.e., industry, commerce, service, and agriculture.

419.25 Industrial Electronics (6 class hours)
Prerequisite: 219.16 or consent of instructor.
A study of electronic circuits and systems applied to the control of industrial devices or operations. Test, measurement and evaluation of control circuitry including photo-electric, timing, electro-mechanical, electro-chemical and other energy transfer devices. Safety factors and devices.

419.61 Industrial Management I (3 class hours)
Prerequisite: 121.15 or consent of instructor.
Treats the production problems in an industrial enterprise, production planning, maintenance.

419.62 Industrial Management II (3 class hours)
Prerequisite: 419.61 or consent of instructor.
A continuation of Industrial Management I, 419.61.

419.63 Manufacturing Processes (6 class hours)
Prerequisite: Junior standing or consent of instructor.
Study of materials handling techniques and plant layout factors as they relate to design and utilization of efficient industrial plan. Emphasis on research and laboratory activities centered around such materials as ceramics, textiles, petroleum and chemical. Classroom exercises and plant visitations.

419.64 Production and Inventory Control (3 class hours)
Prerequisite: 121.15 or consent of instructor.
Modern manufacturing processes and equipment; operation sequence planning, utilizing production type equipment from design to assembly.
419.65 Work Methods and Measurements (6 class hours)
Prerequisite: 121.15 or consent of instructor.
A study of the fundamentals of work analysis, time study and work measurement with actual practice in their use. Stop watch time study, micro-motion study, the establishment of allowances by both stop watch and work sampling studies, the establishment and use of predetermined time valves, and the construction and use of work measurement formulae.

419.66 Industrial Safety and Maintenance (3 class hours)
Prerequisite: Senior standing or consent of instructor.
A study of the methods of production for the worker in an industrial environment. Problems of maintaining equipment and plant.

419.67 Plant Layout and Design (6 class hours)
Prerequisite: 419.63 or consent of instructor.
A study of factors important in the design for plant layout. A consideration of materials handling techniques and plant structure.

419.70 Control Systems Design and Analysis (6 class hours)
Prerequisite: 419.71 or consent of instructor.
Familiarization and analysis of application of control devices and control systems. A study of fluidic, electrical, hydraulic, pneumatic, and mechanical control systems will be presented. Specific applications of such control systems to practical industrial processes will be discussed in depth.

419.71 Mechanical Design Analysis I (6 class hours)
Prerequisite: 219.71 or consent of instructor.
Theory and application in the design of machine elements including study of working stresses, power transmission, bearings and lubrication, fasteners, vibration, heat and human engineering, and laboratory work.

419.72 Mechanical Design Analysis II (6 class hours)
Prerequisite: 419.71 or consent of instructor.
A continuation of Mechanical Design Analysis I.

419.73 Mechanics (3 class hours)
Prerequisite: Senior status or approval of instructor.
A presentation of the basic properties of plain rigid motion. A graphical and analytical study to determine displacement, velocity and acceleration. Analysis of the motion of linkage, cams, gears and gear trains.

419.83 Contemporary Electronic Materials (6 class hours)
Prerequisite: 319.82 or consent of instructor.
Fundamental differences between metals, semi-metals, semiconductors, and insulators will be discussed, including the conceptions of energy bands and energy levels. The important factors affecting electronic and thermal transport will be identified. Finally, typical applications for each class of materials will be discussed including superconductivity, thermoelectrics, p-n junction devices, and light-emitting devices including phosphors, electroluminescent diodes, and lasers. Fabrication of integrated circuits.

419.84 Electrical Testing and Precision Measurement (6 class hours)
Prerequisite: 319.81 or consent of instructor.
Measuring instruments such as surface comparator, gage blocks, sine bar, various types of micrometer and vernier calipers, optical flats are used to determine physical dimensions, surface roughness, hardness, compression, tensions and shear. The study of method quality control techniques which include destructive and non-destructive tests.

419.85 Specialized Electronics (6 class hours)
Prerequisite: 319.61 or consent of instructor.
Application of integrated circuits, elementary digital and linear systems and logic systems, circuit fabrication.
413.01 Student Teaching (9 weeks)
Nine-week period of student teaching during the senior year with approved master teachers in the public schools of the state. Under direct supervision of public school teachers and the supervision of the college supervisors. Observation, participation, and responsible teaching.

413.50 Instructional Aids in Industrial Education (4 class hours)
Construction and use of graphic, projected, and mechanical types of audio-visual aids as applied to industrial education. Analysis of needs for specialized areas of industrial education. Design and construction of mock-ups, cut-aways, storage and display facilities for charts, models, and teaching aids. Operation and maintenance of audio-visual equipment.

413.58 Seminar in Industrial Education (2 class hours)
Students returning from student teaching experiences will evaluate their strengths and weaknesses and determine areas in which they need to improve. The instructor will help each student make specific plans to upgrade himself in areas where improvement is needed. The emphasis will be on the individual needs of the student.

413.60 Industrial Arts Methods for Elementary Education (4 class hours)
Organization of equipment, course content, and methods of teaching shop activities in the elementary school classroom. Projects, tools, materials, processes and handwork suitable for the elementary grades. Practical work in actual manipulative operations using materials and hand tools readily available to the elementary classroom teacher.

419.01 Basic Computer Graphics (6 class hours)
Prerequisite: 119.05 or consent of instructor.
The development of, trends in, and applications for computer graphics. An introduction to and working knowledge of several computer graphics languages, a basic assembler language, and programming for automation. Programming experience will be provided using a computer and plotter.

MEDIA AND TECHNOLOGY

Director and Department Chairman: Nutt
Assistant Director: Thomas
Television Coordinator: Kaplowitz
Director, Computer Services: Matelson
Assistant Professor: Romano
Instructors: Ebba, Herrick, Rogosky

313.028 Audiovisual Education (2 class hours)
Elementary JPE integrated course. Curriculum utilization and instructional materials, mastery of instructional devices and equipment, principles of operation, possibilities for utilization, techniques for evaluation of materials and equipment, knowledge and skills in the production of simple instructional materials.

313.068 Audiovisual Education (2 class hours)
See 313.028 for description. Early Childhood JPE integrated course.

313.12 Introduction to Audiovisual Communication (3 class hours)
Use of modern instructional materials and devices for improving instruction. Includes study in the selection, utilization, and evaluation of various types of instructional materials and effective utilizatons of associated projection and audio equipment. Reference is made to innovative procedures currently in use in all areas of education.
413.07 Preparation of Instructional Materials (3 class hours)
Preparation of a wide variety of visual materials, such as mounted pictures, transparency development and other types of graphics for teaching purposes. A utilization demonstration using materials produced in class is the concluding activity.

413.26 Electronic Data Processing in American Education
This course explores the applications, problems, and promising trends in the development of electronic data processing (EDP) in education.

413.51 Television Programming Workshop (3 class hours)
A lecture-laboratory course in the programming of television ideas, the creative concept, preplanning, executing the visual idea, and evaluating the visual presentation.

413.52 Television Production Seminar (3 class hours)
A lecture-laboratory course in television studio production: television camera operation, basic principles of lighting, sound for television, elements of television set design, functions of floor director, control room operations and basic television directing.

413.53 Using and Maintaining Audio Devices (3 class hours)
A theoretical and practical study of sound techniques and equipment. A technical approach to the use of recorders, amplifiers, speaker systems, microphones, and magnetic sound recording. A functional study of sound techniques and equipment.

413.63 Cinematography (3 class hours)
Examines the motion picture medium in respect to art, aesthetics, psychology, sociology, production techniques, and the medium's impact on society. The student is required to produce a number of 8mm sound film projects related to his interests.

413.64 Media in Communications (3 class hours)
Prerequisite: One course in Media and Technology
Structured to provide an examination of the relationships between motivation, perception, learning theory, group dynamics, and media utilization in communications. Educational and social psychological theories are employed in evaluating the effects of mass media and educational media on the teaching-learning process.

MUSIC

Professors: Austin, Harrison, Helbig, Rittenhouse, Chairman, Uber, Weber
Associate Professors: Berger, Bisgrove, Budmor, Isch, Myers, Smith
Assistant Professors: Batchelor, Lucas, Ludecke, McKinney, Steele, Safran
Instructors: Benedetti, Copeland, DeNicola, Ervin, Helms, LeBeau, Peterson, Richter, Williamson

Trenton State College offers the prospective music teacher attainment of a double objective — an excellent four-year college education and a professional career rich in personal and vocational satisfactions. The music education curriculum offers a combination of experiences in the area of general education with a variety of learning situations in practical and theoretical music enabling the student to become a well-balanced and well-qualified musician who will share his knowledge and skills with those whom he teaches. Graduates of this program are accepted by the State of New Jersey for certification as a teacher of music.

The Music-Liberal Arts program with possible areas for student concentration in musical performance (instrumental or vocal), musicology, or music composition is offered to those music majors not planning to obtain teacher certification. Prospective students in this program must demonstrate exceptional talent and training to be accepted as a major.

The Music-Liberal Arts Major basically follows the same program as the Music Education Major during the first two years of study. Then, instead of taking specialized education courses during the last two years of study, the Music-Liberal Arts Major is individually advised on course work needed to satisfactorily complete his concentration.
### First Year

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<tr>
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<tr>
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#### Electives

Total for Year: 30

### Second Year

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#### Electives

Total for Year: 33

*See p. 30 for swimming requirement.*
## Third Year

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<th>Hrs.</th>
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<tr>
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<tr>
<td>323.21</td>
<td>Counterpoint I - Harmonic</td>
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<td>323.22</td>
<td>Aural Perception III</td>
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<tr>
<td>323.38</td>
<td>History and Literature IV - Medieval &amp; Renaissance</td>
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<tr>
<td>323.39</td>
<td>Counterpoint II - Modal</td>
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</table>

### SPECIALIZATION

- Or
  - 323.55 Orchestration
  - 323.60 Choral Arranging
  - 323.65 Conducting - Instrumental
  - 323.70 Conducting - Choral
  - 323.75 Small Ensemble - Vocal
  - Or
  - 323.76 Small Ensemble - Instrumental

### Ensembles, Large

- Choral:
  - 123.30 College Choir
  - 123.31 College Chorus

- Instrumental:
  - 123.25 College Band
  - 123.40 College Orchestra

### Fourth Year

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course</th>
<th>Sem.</th>
<th>Hrs.</th>
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<tr>
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<td>Private Applied Music</td>
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<td>423.12</td>
<td>Recital</td>
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<td>423.26</td>
<td>Seminar in Music</td>
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<tr>
<td>423.32</td>
<td>History and Literature V - Contemporary</td>
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</table>

### SPECIALIZATION

- 423.25 Opera Workshop - Vocal
  - Or
  - 423.26 Class Applied Music - Instrumental

### Ensembles, Large

- Choral:
  - 123.30 College Choir
  - 123.31 College Chorus

- Instrumental:
  - 123.35 College Band
  - 123.40 College Orchestra

### Professional (for Music Education Major only, Liberal Arts Major has electives.)

- 117.05 Contemporary Health Problems
- 325.14 Educational Psychology
- 313.60 Development of Educational Thought
- 313.61 Music Education, Jr. - Sr. High School
- 313.66 Music Practicum Elementary
- 313.63 Music Practicum, Jr. High School Choral
- Or
  - 313.65 Music Practicum, Jr. High School Instrumental
- 313.67 Music Education, High School Choral
- Or
  - 313.69 Music Education, High School Instrumental
- 313.72 Music Education for Grades Kindergarten through Six
- Electives

### Total for Year

30

Because the music faculty believes that two of the most vital aspects in the growth of any musician are the listening to and performing of music, various minimum requirements have been established to insure that all music majors are exposed to these opportunities for growth. A partial outline of requirements follows and brochures containing detailed information are available to all students.
Requirements for all Music Majors

1. All Music Education Majors and Liberal Arts Performance Majors must perform a senior recital in their major performance area. Students register for 423.12 - Applied Recital during the semester of their recital performance.

2. All music majors must enroll for large ensemble experiences during all four years of undergraduate study. Enrollment must be for the full academic year in the large ensemble(s) chosen.

3. Although the minimum requirement for Private Applied Study in the Music Education student’s major performing medium is six (6) semester hours plus one (1) hour for 423.12 - Applied Recital, music majors normally enroll for Private Applied Study in excess of this minimum amount. Also, although a minimum of two (2) semester hours of Class Applied Music is required, it is strongly recommended that students enroll for study in excess of this amount to remedy possible deficiencies in their understanding of various musical instruments. A program of advisement is provided to assist the student in obtaining relevant study to meet his individual needs.

4. All music majors must attend a percentage of all recitals and designated music programs.

5. On the recommendation of the major applied instructor, the student will perform in the Student Recital Series each year.

6. The Piano Proficiency Requirement applies to all music majors. Music Education majors must fulfill this Piano Requirement prior to assignment to 413.01 - Student Teaching.

7. All students must audition for entrance into the music program and when requesting a change in major applied area.

Sem.
Hrs.

123.01 Survey of Music Literature (2 class hours)
Liberal Studies offering. Examination of periods, styles and outstanding musical personalities from the Renaissance to the contemporary scene. Course is for non-music majors only.

Applied Music (Class lessons — as arranged — see Music Department for course numbers).

Applied Music (Private lessons — as arranged — see Music Department for course numbers).

123.20 Music Fundamentals (2 class hours)
Study of rhythm, melody and harmony in music. Basic knowledge of the keyboard. Musical skills acquired through singing, ear-training, music reading and creating original music. Course is for non-music majors only.

123.26 Basic Music I (1 class and 2 lab hours)
Prerequisite: Basic knowledge of musical notation. A beginning study of music fundamentals with emphasis on the aural perception of pitch and rhythm patterns. Growth in perception is acquired through ear-training and music reading.

123.27 Basic Music II (2 class and 2 lab hours)
Prerequisite: 123.26 Basic Music I or equivalent by test. Continuing the study of the fundamentals of music. The folk music of the peoples of the world and children’s song literature serve as teaching materials to acquaint the students with the fundamentals of music and to develop their auditory perception and sight singing skills.

Large Ensembles

123.30 College Choir (2 class hours)
For selected students who possess vocal and technical ability satisfactory to the director. Singing of material both sacred and secular, accompanied, and a cappella. Students eligible by audition.
123.31 **College Chorus** (2 class hours)
For all students who possess vocal and technical ability satisfactory to the director. Studying and performing of literature from the larger choral works which are considered suitable for high school and community choruses. No audition necessary.

123.35 **College Band** (2 class hours)
Routine instrumental experience to improve playing and suggestions for developing bands. Practical advanced conducting for students who have had considerable study and instrumental experience. Students are eligible by audition.

123.40 **College Orchestra** (2 class hours)
Development of instrumental ensembles. Routine instrumental experience to improve playing and suggestions for developing orchestras. Practical advanced conducting for students who have had considerable study and instrumental experience. Students eligible by audition.

**Small Ensembles**
The following ensembles are offered both Fall and Spring for no credit. Interested students should contact the directors for eligibility requirements.

- 123.34 Jazz Lab
- 123.36 TSC Singers
- 123.37 Percussion Ensemble
- 123.38 Wind Ensemble
- 123.39 Brass Ensemble
- 123.41 Clarinet Choir

**Musicianship I**

123.30 **History and Literature Analysis I - Classical**
(1 class and 2 lab hours)
*Prerequisite:* 123.27 Basic Music II or equivalent by test.
The study of the music of the Classical period, its stylistic characteristics, musical practices and historical background, with emphasis on the music of Haydn, Mozart, and early Beethoven.

123.31 **Harmony I - Diatonic** (2 class and 1 lab hour)
*Prerequisite:* 123.27 Basic Music II or equivalent by test.
The study of diatonic harmony. Provides opportunity for the student to write in the harmonic style of the classical period, to understand and analyze its harmonic language, and reproduce it at the keyboard.

123.32 **Aural Perception I** (1 class and 1 lab hour)
*Prerequisite:* 123.27 Basic Music II
Develops the student’s auditory perception, his ability to reproduce concepts vocally, and his sight singing skills.

**Musicianship II**

123.50 **History and Literature Analysis II - Romantic**
(1 class hour and 2 lab hours)
*Prerequisite:* Musicianship I courses or permission of instructor.
The study of the music of the Romantic period from Beethoven to Wagner, its stylistic characteristics, musical practices, and historical background.

123.51 **Harmony II - Chromatic** (2 class and 1 lab hour)
*Prerequisite:* Harmony I - Diatonic.
The study of chromatic harmony. Provides opportunity for the student to write in
<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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<td>Aural Perception II (1 class and 1 lab hour)</td>
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<td>Continuation of Aural Perception I.</td>
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<td>323.20</td>
<td>History and Literature Analysis III — Baroque</td>
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<td>Musicianship II courses or permission of instructor.</td>
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<td>323.21</td>
<td>Counterpoint I — Harmonic (2 class and 1 lab hour)</td>
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<td>Musicianship II courses of study or permission of the instructor.</td>
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<td>323.22</td>
<td>Aural Perception III (1 class and 1 lab hour)</td>
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<td>Aural Perception II.</td>
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<tr>
<td>323.38</td>
<td>History and Literature Analysis IV — Medieval and</td>
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<td>Musicianship III courses or permission of instructor.</td>
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<tr>
<td></td>
<td>Renaissance</td>
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<tr>
<td>323.39</td>
<td>Counterpoint II — Modal (1 class and 1 lab hour)</td>
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<td>Musicianship III courses or permission of the instructor.</td>
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<td>Composition I (2 class hours)</td>
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<td>Composition III (1 class hour)</td>
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<td>323.55</td>
<td>Orchestration (2 class hours)</td>
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<td>Orchestration of the original piano sketch and its arrangements</td>
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</tbody>
</table>

the harmonic style of the romantic period, to understand and analyze its harmonic language, and to reproduce it at the keyboard.

Continuation of Aural Perception I.
also arranged for larger instrumental combinations. The college orchestra and band act as a laboratory for the playing of student works.

323.60 Choral Arranging (2 class hours)
A study of various types of choral arranging including: the standard patterns (SA, SATB, TTBB, etc.); manifold procedures (descant, imitation, humming, etc.); and a study of accompaniments. Analysis of selected choral scores and assignments for making original arrangements featured.

323.65 Conducting, Instrumental (2 laboratory hours)
Study of various beat patterns, use of the left hand and other related techniques of conducting. Emphasis upon interpretation, score reading and score marking. The class is formed into an instrumental ensemble in order that each student may have opportunity to conduct a live group. Materials, especially appropriate for junior and senior high school, are discussed and played.

323.70 Conducting, Choral (2 laboratory hours)
Designed to enable the student to develop the fundamental conducting skills, through discussion and analysis of problems encountered in conducting a rehearsal. Special stress upon practical application.

323.75 Small Ensemble, Choral (1 laboratory hour)
For students in practicum. (Must be scheduled for two semesters).

323.76 Small Ensemble, Instrumental (1 laboratory hour)
For students in practicum.

423.03 Advanced Conducting
Follows the basic course in either choral or orchestral conducting. Stress upon development of expressive gestures in conducting and scholarly approach to the score.

423.12 Recital
Prerequisite: Permission of student’s major applied teacher.
Senior requirement for all music majors. The recital is considered a culmination of the major applied music study. Students register for this course during the semester of their recital performance. Evaluation of each recital is by faculty committee.

423.20 Contemporary Music (2 class hours)
Prerequisite: 123.01 or equivalent.
Survey of trends in European and American music from about 1910 to the present day. Particular emphasis on music since 1920. Study of contemporary composition techniques: polytonality, atonality, and the twelve-tone system. For non-music majors only.

423.25 Opera Workshop (4 laboratory hours)
Practical experience in the musical and technical aspects of a major operatic production and an additional music performance: vocal performance, acting, costuming, makeup, publicity, stagecraft, and orchestral accompaniment. Required of vocal majors, but elective for interested students.

423.26 Seminar in Music (2 laboratory hours)
Critical analysis of the student teaching experience. Emphasis on the specific individual needs of each student.

423.32 History and Literature Analysis V—Contemporary (2 class and 2 lab hours)
Prerequisite: Musicianship IV units of study or permission of the instructor.
The study of contemporary music from Debussy to latest developments, its stylistic characteristics, musical practices, and historical background.

423.55 Piano Pedagogy (3 class hours)
Prerequisite: Permission of the instructor.
A survey and analysis of methods and techniques used in teaching piano at all levels with examples of methods of great pedagogues. Special attention to sight-reading, development of technique, and meaningful practice habits, from the standpoint of psychological, philosophical, musical content, and recommendation of materials.

423.38 Independent Study
Prerequisite: Permission of Music Chairman.
Study in depth of a specific musical area selected through consultation between student and teacher.

313.19 Music in Early Childhood Education
(Songs and Rhythms) (1 class hour)
Planning typical lessons in advanced rhythmic participation, singing dramatizations, listening and reading; constructing and playing simple instruments; observing and discussing demonstration lessons.

313.21 Teaching Music in the Elementary Grades (2 class hours)
Music for elementary classroom teaching. Study of the child voice and procedure for training children’s voices; singing and song selection, rhythmic activities suitable for each grade level.

313.61 Music Education in Junior—Senior High School
Study of the place and purpose of music in the junior and senior high schools, its aims and objectives in relation to the needs and interests of the junior and senior high school student.

313.63 Music Practicum and Junior High School Choral
Designed to provide opportunity for observation and teaching in the area of general and vocal music.

313.65 Music Practicum Instrumental Junior High School
Provides opportunity for observation and teaching in the area of instrumental music—junior high school.

313.66 Music Practicum Elementary
Provides opportunity for observation and teaching in the area of elementary music.

313.67 Music Education, High School, Choral
Prerequisites: 213.12. This course must be taken concurrently with 323.60, 323.75 and 313.63.
Acquaints the student with rehearsal and teaching procedures, with an analysis, evaluation and interpretation of choral materials on the high school and junior high school levels. Emphasis placed upon the problems of voice testing, balance and blend, intonation and diction.

313.69 Music Education, Instrumental
Prerequisite: 213.12.
This course must be taken concurrently with 323.55, 323.65, 323.76, and 313.65. A series of lecture, discussion, laboratory periods in which the over-all instrumental program is considered: its organization, need, instrument selection, care and procurement, teaching method, materials, rehearsal, and performance.

313.72 Music Education for Grades Kindergarten through Six
Exploration of the elementary music curriculum: philosophy, objectives, methods, materials, literature, and related arts. Course also involves the study of the child’s voice and the development of skills and concepts. Experience includes uses of voice and instrumental rhythm instruments, recorder, audio-visual equipment, and vocal-instrumental arranging.

413.01 Student Teaching (full time — 9 weeks)
See Educational Field Experience.
The basic baccalaureate degree nursing program admits qualified high school graduates, college transfer students, and college graduates seeking professional preparation for the broad scope of nursing practice. Preparation for this kind of nursing practice demands substantial knowledge of the humanities, natural and social sciences, and nursing theory with its related laboratory study. Graduates are qualified to take the state examination for licensure as registered nurses. They are broadly prepared as practitioners of professional nursing to give nursing care in various settings, including public health; to interpret and demonstrate such care to others; and to assume professional responsibility for health promotion, disease prevention, and for nursing diagnosis, therapy, and rehabilitation. In addition, they plan, direct and evaluate nursing care given the nursing team. This program provides the foundation for master's and doctoral study in nursing and a long-term career in professional nursing.

The professional nursing curriculum is four academic years in length and leads to the bachelor of science degree with a major in nursing. All nursing courses are taught by qualified college faculty in nursing and include both nursing theory and regularly scheduled nursing laboratory practice. Hospitals, homes, health agencies and schools in the Trenton area provide the settings for the laboratory study in nursing.

Since nursing is an upper division major, sequence is important. Successful completion of specified courses in the natural and social sciences is required for admission to the first nursing course (Nursing I). Students entering as freshmen and transfer students must follow this science sequence to avoid delay in admission to Nursing I.

**First Year**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>English I</td>
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<td>Speech I</td>
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<td>133.30</td>
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<td>327.35</td>
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<td>232.12</td>
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<td>Mathematics</td>
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**Second Year**

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<thead>
<tr>
<th>Course No.</th>
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<tbody>
<tr>
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<td>Arts &amp; Humanities</td>
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Total 18
## Third Year

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<tr>
<td>332.32</td>
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<td>History and Trends in Nursing</td>
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<td>330.01</td>
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## Fourth Year

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<tbody>
<tr>
<td>430.01</td>
<td>Nursing IV</td>
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<td>8</td>
<td>430.03</td>
<td>Nursing V</td>
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<tr>
<td>430.02</td>
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<td>430.04</td>
<td>Elective</td>
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All nursing science courses include lecture, discussion, and laboratory. Laboratory settings include hospitals, homes, public health agencies, clinics, nursery schools, schools, and other resources.

Curricula

<table>
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<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Sem.</th>
<th>Hrs.</th>
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<tr>
<td>230.01</td>
<td>Nursing I (3 class hours and 6 laboratory hours)</td>
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</tr>
<tr>
<td>Prerequisites:</td>
<td>Completion of required natural and behavioral sciences.</td>
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<tr>
<td>The study and application of basic concepts which govern the dynamics of nursing practice common to all patients.</td>
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<tr>
<td>330.01</td>
<td>Nursing II (4 class hours, and 12 laboratory hours)</td>
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<tr>
<td>Prerequisites:</td>
<td>230.01.</td>
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<tr>
<td>A family-centered approach to the nursing of mothers and their infants during the maternity cycle and a developmental approach to the care of the well child through adolescence.</td>
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<tr>
<td>330.02</td>
<td>Nursing III (4 class hours and 12 laboratory hours)</td>
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<tr>
<td>Prerequisites:</td>
<td>330.01.</td>
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<tr>
<td>A study of the physiological and psychosocial aspects of the major health problems affecting children and adults. The course emphasizes professional nursing skills necessary for the promotion of health and prevention of disease, nursing diagnosis and intervention, habilitation and rehabilitation.</td>
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<tr>
<td>430.01</td>
<td>Nursing IV (4 class hours and 12 laboratory hours)</td>
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<tr>
<td>Prerequisite:</td>
<td>330.02.</td>
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<tr>
<td>Continuation of 330.02.</td>
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<tr>
<td>430.02</td>
<td>Public Health Sciences (3 class hours)</td>
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<tr>
<td>Concurrent with 430.01 or by special permission. Principles and methods of epidemiologic investigation, community organization, statistics, environmental health, and health education. Their application to program planning and implementation for community health.</td>
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<tr>
<td>430.03</td>
<td>Nursing V (4 class hours and 12 laboratory hours)</td>
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<tr>
<td>Prerequisite:</td>
<td>430.01.</td>
<td></td>
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</tr>
<tr>
<td>A team approach for giving and evaluating nursing care to groups of patients. The leadership roles and responsibilities of the professional nurse in the health care delivery system are studies.</td>
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</tbody>
</table>
430.04 **History and Trends in Nursing** (3 class hours)
Concurrent with 430.03 or by special permission.
Considers nursing as a social institution in historical perspective. Contemporary
trends related to political, social, cultural, technological and educational develop­
ments.

430.50 **School Nursing** (3 class hours)
Function and role of the nurse in the organization, administration and evaluation of
health services to school age children and youth.

430.98 **Independent Study** (1-3 class hours)
Concurrent with 430.01 and 430.03 and subject to approval of advisor. Intensive
individual study of a special problem in nursing.

**PHILOSOPHY AND RELIGION**
Professor: E. Hirsch, Acting Chairman
Assistant Professors: Clouser, Cummings, Gotthelf, Smith

**Required Courses**

**Minor in Philosophy**
Students should consult the department before they select a sequence of courses
that will constitute a minor.

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem</th>
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<tbody>
<tr>
<td>124.01 Philosophical Problems</td>
<td></td>
</tr>
<tr>
<td>324.16 Ancient Philosophy</td>
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</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>124.02 Issues in Modern Philosophy</td>
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</tr>
<tr>
<td>Select four other philosophy courses by advisement</td>
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**Minor in Religion and Philosophy**

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem</th>
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</thead>
<tbody>
<tr>
<td>224.10 Comparative Religion</td>
<td></td>
</tr>
<tr>
<td>124.01 Philosophical Problems</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>224.17 Ethics</td>
<td></td>
</tr>
<tr>
<td>Select one course in the history of philosophy</td>
<td></td>
</tr>
<tr>
<td>Select 3 other courses, at least two in religion</td>
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</tbody>
</table>

**I. Courses in Philosophy**

**124.01 Philosophical Problems**
Introduction to philosophical thinking. Discussions based on assigned reading
center around basic problems, such as the meaning of human existence, man and
his fellowman, man and nature, what is knowledge, man and society, and the
nature of God. Students read original essays written by philosophers from Plato to
Dewey.

**124.02 Issues in Modern Philosophy (1600-1900)**
Course acquaints the students with the major schools of philosophical thought
from Descartes to Kant. The solution of a specific problem will be studied in re-
lation to the epoch to which the respective philosopher belonged.
224.05 Political Philosophy
Study of the philosophical roots of present-day political theories and systems. Examination of basic concepts and issues concerning the individual’s relationship to the state, including: individualism, collectivism, freedom, power, equality, and rights as they appear in the thought of leading exponents of Communism, Capitalism, Socialism, Fascism and Democracy.

224.15 Introduction to Logic
Studies of three major logical systems: Aristotelian, truth-functional, and a quantified system of deduction.

224.17 Ethics
Attempt to formulate valid standards of human conduct, through an examination of major ethical theories from Plato to the present day. Topics include: pursuit of happiness and other goals of life; justification of ultimate moral principles; egoism and altruism; the relevance of ethical theory to practical decision making. Application of these issues to practical moral problems.

224.01 American Philosophy
Studies in important American philosophers. Class discussions based on assigned reading from philosophers, such as Emerson, William James, John Dewey, Whitehead and Santayana.

224.11 Philosophy of Science
Introduction to basic problems of the natural sciences, including the concept of reality, the laws of nature, scientific truth, scientific method; the relation of science to religion, the social sciences and the humanities.

224.13 Philosophy of Religion
Philosophical evaluation of attempts to justify or discredit religious beliefs. The course examines historic and contemporary arguments for and against the existence of God; the relation of faith to reason; the problem of evil; the nature of religious experience; the nature of religious language; and the question of immortality.

224.16 Ancient Philosophy
Selected readings mainly from Plato and Aristotle. Discussion of such central themes as the nature of the universe, the concept of God, knowledge and truth, ethical and political theories.

224.18 Theory of Knowledge
A study of classical and contemporary theories of the nature of knowledge, belief, certainty, and truth, with particular reference to the relationship of sensation and perception to the acquisition and possession of knowledge. Skepticism and answers to skepticism. Exploration of the possibility and nature of non-sensory knowledge.

224.24 Metaphysics
A study of the major statements of and answers to the question of forming a theory of reality and the importance of such a theory for the sciences.

224.26 Seminar in Ancient Philosophy
The course concentrates on one ancient philosopher studying several of his major writings. Since both Plato and Aristotle exerted immense influence on the philosophical development through the centuries the students should greatly profit from a study in depth of either philosopher.

224.28 Philosophy of Mind
The philosophical investigation of the mind and such concepts as mind and body, thought, emotion, feeling, and will; and action and behavior; and such problems as self-knowledge and knowledge of other minds; the “minds” of animals and of other men.
430.04 **History and Trends in Nursing** (3 class hours)
Concurrent with 430.03 or by special permission.
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trends related to political, social, cultural, technological and educational develop­
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Concurrent with 430.01 and 430.03 and subject to approval of advisor. Intensive
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**PHILOSOPHY AND RELIGION**

*Professor: E. Hirsch, Acting Chairman*
*Assistant Professors: Clouser, Cummings, Gotthelf, Smith*

**Required Courses**

**Minor in Philosophy**

Students should consult the department before they select a sequence of courses
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<table>
<thead>
<tr>
<th>Course</th>
<th>Sem</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>124.01 Philosophical Problems</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>324.16 Ancient Philosophy</td>
<td>3</td>
<td>3</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>124.02 Issues in Modern Philosophy</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Select four other philosophy courses by advisement</td>
<td></td>
<td>Total: 18</td>
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**Minor in Religion and Philosophy**

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>224.10 Comparative Religion</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>124.01 Philosophical Problems</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>224.17 Ethics</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Select one course in the history of philosophy</td>
<td></td>
<td>Total: 18</td>
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<tr>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Sem</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>124.01 Philosophical Problems</td>
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</tbody>
</table>
| Introduction to philosophical thinking. Discussions based on assigned reading
center around basic problems, such as the meaning of human existence, man and
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nature of God. Students read original essays written by philosophers from Plato to
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<thead>
<tr>
<th>Course</th>
<th>Sem</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>124.02 Issues in Modern Philosophy (1600-1900)</td>
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<td>3</td>
</tr>
</tbody>
</table>
| Course acquaints the students with the major schools of philosophical thought
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The course concentrates on one ancient philosopher studying several of his major writings. Since both Plato and Aristotle exerted immense influence on the philosophical development through the centuries the students should greatly profit from a study in depth of either philosopher.

324.28 Philosophy of Mind
The philosophical investigation of the mind and such concepts as mind and body; thought, emotion, feeling, and will; and action and behavior; and such problems as self-knowledge and knowledge of other minds; the "minds" of animals and of
electronic computers. It will investigate issues in the philosophy of psychology arising from such theories as behaviorism, Gestalt psychology, and the various psychoanalytic schools.

324.30 Philosophy of Language
A study of such philosophical issues about language as meaning, truth, the relation between language and the world, the relation between language and mind, necessary and non-necessary statements, synonymy, and the varied uses of language. Selected topics in syntax, semantics, and pragmatics. Pragmatist neo-Kantian, logical positivist, ordinary-language, and transformational approaches to the philosophy of language.

424.01 Existentialism
A major philosophical expression of our time, starting with Soren Kierkegaard, and including Martin Buber, Albert Camus, Jean-Paul Sartre, Martin Heidegger and Karl Jaspers.

424.05 Aesthetics
Major issues raised in connection with the arts. Selected readings from Plato, Aristotle, Kant, Tolstoy, Santayana, Dewey and others.

II. Courses in Religion

224.10 Comparative Religion
The great religions of the world studied and their religious thoughts compared: Hinduism, Buddhism, Zen Buddhism, Taoism, Confucius, Judaism, Christianity and Islam. The Bhagavad Gita, the great Hindu document, Buddhist Scriptures and/or some other original sources, will be read.

224.12 History of Jewish and Christian Thought
A study of the development of Judaeo-Christian thought by means of a consideration of major Jewish and Christian thinkers, trends and movements from the Diaspora to the time of the Reformation. The course will deal with the world of the Talmud, and the emergence of classical Christianity. Emphasis will be upon the contribution of such leading figures as Jesus, St. Paul, Philo, Origen, Augustine of Hippo, Moses Maimonides, St. Thomas Aquinas, Meister Eckhart, John Calvin and Martin Luther.
Physics

First Year

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Electives

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Total for Year 31

Second Year

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Electronics

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Total for Year 31

Third Year

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<td>334.22</td>
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Optics and Wave Motion

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Introduction to Theoretical Physics

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Total for Year 32

*See p. 30 for swimming requirement.

*A person seeking entrance to a graduate school in physics should gain proficiency in a foreign language.*
Fourth Year

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<td>Heat and Thermodynamics</td>
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<tr>
<td>434.52</td>
<td>Introduction to Quantum</td>
<td>3</td>
<td>434.50</td>
<td>Nuclear Physics</td>
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***Not required of physics-teaching students.

Total for Year: 30

Minor in Physics

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<tr>
<td>134.17-18</td>
<td>General Physics I and II</td>
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<td>234.30</td>
<td>Electricity and Magnetism</td>
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<tr>
<td>334.24</td>
<td>Atomic Physics</td>
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Two advanced physics courses elected with the advice of the physics department chairman or his designate. 5 or 6

Total: 18 or 19 (313.64 Methods of Teaching High School Science and 133.30-31 General Chemistry I and II are required for a second teaching field.)

134.01, 134.02, 134.03 Introduction to Physical Science I, II, III (2 class hours and 2 laboratory hours each semester)

Purpose is to discover and remedy the individual student's weaknesses in processes, fundamental experimental techniques, and basic subject matter of the physical sciences. Topics, depending on backgrounds of students, may include measurement, powers of ten notation, making inferences, testing hypotheses, nature of scientific laws, motion, light, crystal structure, electricity, atomic models, bonding.

134.07 Principles of Physics I (2 class hours and 2 laboratory hours)

Not for Science or Mathematics Majors.

Study of physical laws and concepts which clarify man's understanding of his physical environment. Stress on unity of physical ideas, impact of concepts on society, development of the concepts as outcomes of human behavior. Topics include force, motion, momentum, energy, gravitation.

134.08 Principles of Physics II (2 class hours and 2 laboratory hours)

Not for Science or Mathematics Majors.

Prerequisite: 134.07

Continuation of 134.07. Topics include wave motion, electric charges and fields, the atom, the evolution of physics.

134.10 Descriptive Astronomy (3 class hours)

Study of major celestial bodies and their movements. Topics include the solar system, sun, stars, clusters, nebulae, galaxies, stellar evolution, cosmology, common phenomena such as time reckoning, the calendar, eclipses, and phases of the moon. Evening observations will be made using the college's telescopes.

134.17 General Physics I (2 class hours and 2 laboratory hours)

For Science and Mathematics Majors.

Co-requisite: 121.25 or 121.27

General college physics including topics in mechanics and heat. Emphasis on understanding of important principles and concepts of physics. Use of laboratory work and problem solving as an integral part of course.

134.18 General Physics II (3 class hours and 2 laboratory hours)

For Science and Mathematics Majors.

Co-requisite: 125.26 or 125.28

Prerequisite: 134.17

Continuation of 134.17. Topics include electricity, light, wave motion, and sound.
134.25 Introduction to Meteorology (2 class hours and 2 laboratory hours)
Designed to acquaint non-science majors with basic weather processes. Topics include: heat balance of earth-atmosphere system, motions, condensation, precipitation, air masses, fronts, storms, tropical meteorology, contemporary problems such as air pollution and weather modification.

134.50 Physical Science for Non Science Students I (2 class hours and 2 laboratory hours)
Topics in the physical science with special emphasis on the solid state of matter. Topics include motion, light, crystal structure. Personal involvement with the phenomena of science stressed through use of the laboratory-discovery method of instruction.

134.51 Physical Science for Non Science Students II (2 class hours and 2 laboratory hours)
Prerequisite: 134.50
Continuation of 134.50. Topics include electricity, atomic models, and chemical bonding. Considerable individualized study is undertaken by the student.

234.25 Electronics (2 class hours and 2 laboratory hours)
Prerequisites: 121.26 or 28, 234.30
Study of the characteristics of electric currents and the application of these phenomena to use in many types of electronic circuits. Emphasis on common uses such as rectification, amplification, oscillation, wave shaping and control. Attention given to vacuum tubes, solid state devices and transistor applications and circuits.

234.30 Electricity and Magnetism (2 class hours and 2 laboratory hours)
Prerequisites: 121.26 or 28, 134.17-18 or equivalent.
Study of fundamental laws of electrostatics, Gauss's Law, Kirchoff's Laws, circuit theory, induced EMF, moving charges in a magnetic field, A.C. circuits, electromagnetic waves.

334.10 General Astronomy I (3 class hours)
Prerequisite: 134.18
Introduction to application of physical principles in deducing the physical and chemical nature of celestial objects. Topics include the solar system and the methods and instruments of the astronomer.

334.11 General Astronomy II (3 class hours)
Prerequisite: 334.10
Continuation of 334.10. Topics include stars, stellar associations, and galaxies.

334.15 General Meteorology I (2 class hours and 2 laboratory hours)
Prerequisite: 134.18
Study of the physical nature of the atmosphere and the laws it obeys. Emphasis on physical processes underlying weather phenomena. Topics include general and secondary circulations, air masses and fronts, hurricanes, thunderstorms, atmospheric moisture, and instrumentation.

334.16 General Meteorology II (3 class hours)
Prerequisite: 334.15
Continuation of 334.15. Emphasis on physical climatology and applications of physical meteorology to environmental problems. Topics include mathematical and physical meteorology, description of terrestrial heat balance, radiation instruments, water balance, description of terrestrial heat balance, radiation, heating, and energy balance, heat transfer, turbulence, diffusion, pollution and its causes and effects.

334.21 Optics and Wave Motion (2 class hours and 2 laboratory hours)
Prerequisites: 121.26-28, 134.17-18 or equivalent.
Study of the fundamentals of geometric and physical optics. Geometric optics treated by Huygen's Principle. Physical optics covering topics from wave motion through diffraction, radiation, and the quantum theory.
334.22 Mechanics (3 class hours)
Prerequisites: 321.05, 134.18
Classical mechanics including kinematics, force and motion of particles, work and energy, Newton's law of gravitation, harmonic oscillations, translational and rotational motion of rigid bodies, properties of solids and liquids, statics, and wave motion.

334.24 Atomic Physics (2 class hours and 2 laboratory hours)
Prerequisites: 125.26 or 28, 134.18. Desirable to have 234.30
Study of the more recent developments in physics. Topics include the electron, electrical nature of matter, modern concepts of the atom, X rays and other electromagnetic radiation, quantum properties of waves and particles, relativity.

334.27 Heat and Thermodynamics (3 class hours)
Prerequisites: 134.18, 321.05
Energy of matter from both a macroscopic and microscopic view. Concepts of heat and temperature and interrelationship between energy and the physical properties of matter.

334.53 Introduction to Theoretical Physics (3 class hours)
Prerequisites: 134.18, 321.05
Study of the methods used by theoretical physicists in solving problems. Emphasis on the major areas of classical physics such as mechanics, heat, and electromagnetism.

334.98 Independent Study in Physics (hours individually arranged)
Prerequisite: Permission of the instructor.
The student will study independently a selected area of physics, meteorology, or astronomy through the use of scientific journals, source books, and experimentation.

434.05 Meteorology (Quarter Course, 3 class hours and 2 laboratory hours)
Prerequisites: 121.26 or 28, 134.17-18, or equivalent.
Physical nature of the earth-atmosphere weather system. Topics include: radiation in earth's weather system, atmospheric thermodynamics, hydrostatic stability, laws of horizontal motion, synoptic weather map analysis. Contemporary topics such as air pollution, hydrology, climatological analysis considered if time permits.

434.10 Astronomy of the Solar System (2 class hours)
Prerequisite: 334.11
Study of the physical characteristics of the sun, planets, and satellites based on latest developments of experimental and observational astronomy. Techniques and methodology is emphasized. Physical theories explaining the characteristics of the solar system are examined.

434.11 Stellar Astronomy (3 class hours)
Prerequisite: 334.11
Study of the physical characteristics and dynamics of stars and stellar association based on latest observational and theoretical investigations. Techniques and methodology for obtaining experimental data investigated.

434.50 Nuclear Physics (3 class hours)
Prerequisites: 321.05, 334.24
Study of the fundamentals of nuclear physics. Topics include quantum mechanical treatment of alpha decay, electron and positron emission, gamma radiation, nuclear models, nuclear reactions, parity, isospin, fission, fusion, fundamental particles, antimatter.

434.51 Advanced Physics Laboratory (4 laboratory hours)
Prerequisites: 234.30, 334.24
Laboratory class designed for performance of physics experiments at an advanced level. Statistical treatment of data applied to long term experiments of classical and modern format.
434.52 Introduction to Quantum Mechanics (3 class hours)
Prerequisites: 234.30, 321.05, 334.24
Fundamental concepts of quantum mechanics and applications to problems in modern physics. Wave mechanics and wave mechanical properties of matter studied using the Schroedinger approach.

435.01 Honors Quarter
A student who has maintained a superior academic record during the first three years of his college career may be invited to participate in an Honors Quarter during his senior year. Each student will devote the entire nine-week period to independent study. The Honors Quarter Study will provide five semester hour credits. Credit in the other required courses may be secured by taking the courses during other semesters and/or by means of equivalency examinations. Any student in his junior year who is interested in such a program should talk to the chairman of his department.

313.54 Methods of Teaching Science in the Elementary Grades (2 class hours)
Place of science in the elementary school and aims of science instruction at this grade level. Sources and use of science teaching materials. Study of national elementary science curricula.

313.54 Methods of Teaching High School Science (2 class hours)
Review of modern trends in content, methods, techniques, organization, and philosophy of science education directed toward the junior and senior high school level. Opportunity is given for discussion of students' problems and for specific aid in preparing for the period of student teaching.

413.01 Student Teaching
Prerequisite: Meeting of all criteria for admission to student teaching.
Nine-week period of student teaching during the senior year with approved teachers in the public schools of the state. Under the direct supervision of the public school teachers and the general supervision of the college supervisors. Observation, participation, and responsible teaching.

POLITICAL SCIENCE

Associate Professors: Cheng, Hester, Fair, Chairman
Assistant Professor: Sullivan

Political Science is concerned with the study of power in society, economy and government. It provides useful preparation for such careers as public service, scholarship, and law.

Normally a political science major will diversify his program by taking at least one course in each of the following fields: (1) political theory, (2) constitutional law, (3) international relations, (4) comparative government, and (5) American politics. The details of each major's program will be worked out with a departmental advisor.

There are two programs in political science; one is for liberal arts students, the other for teacher education majors. Political Science Education students will select, in addition to the above requirements, the following: prior to the senior year, Contemporary Health Problems, Development of Educational Thought, Educational Psychology, Junior Professional Experience and Methods of Teaching High School Social Studies; in the senior year, Student Teaching and Teacher in the Schooling Community. To meet the state requirements for a comprehensive social studies certificate, the student must take at least one course in economics since the applicable certificate is not work in three other social studies disciplines. If a comprehensive social studies certificate is not sought, the student must take at least one course in economics since the applicable certificate is not work in three other social studies disciplines.
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*See p. 30 for swimming requirement.

**Not required of Political Science Education majors; they should take an additional six hours in other Arts and Humanities if they do not take Foreign Language. No more than six hours in any one discipline may be taken to meet this requirement.

***These hours must be taken in disciplines other than political science. No more than six hours may be taken in any one discipline to meet this requirement.

### Minor in Political Science

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<th>Course No.</th>
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<tr>
<td>116.05 American National Government</td>
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<tr>
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<tr>
<td>Political Science Electives</td>
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For a second teaching field, the student must also take 313.59 Methods of Teaching High School Social Studies 2 s.h.

**116.05 American National Government (3 class hours)**

The ideals and political climate which gave rise to our form of government, and the constitutional and extra-constitutional factors which have molded and changed our government, its powers and policies, will be presented and analyzed.

**216.02 American Political Theory (3 class hours)**

Presents the ideas of the great men of American history concerning the individual, the community, and the world; presents a framework in which students may evaluate present day political concepts and practice.
An analysis of power politics in the contemporary world of nation-states and the various approaches to world peace including balance of power, judicial settlement, arms limitation, diplomacy, international organization and world government.

The history, organization, composition, functions and objectives of political parties and their relation to our government. The importance of major and minor parties, primaries and elections, and legal and political qualifications for candidacy and voting. The distinction between pressure groups and parties: the place of parties in campaigns and public policy-making.

The study of political thought, behavior and institutions of East Asian countries with special emphasis on Communist China, Indonesia, and Japan, but not to the exclusion of the smaller and less well known countries in that region.

The powers and functions of the President and the bureaucracy and the political and social factors which have influenced the development of these institutions.

Acquaints students with various contemporary modes of political analysis. Among the various approaches that may be included are: power and influence, elite theory, communications theory, structural-functional analysis, systems theory, game theory, political socialization, political culture and others.

The government and politics of urban areas with particular attention focused on the structure and process of governing the metropolis, pressure groups, political parties, public services, finance and urban law.

Analysis of the formulation of American foreign policy. Special attention is given to systemic conditions in the international community, societal factors and capability analysis. The roles of the President, Congress, State Department, Defense Department, Central Intelligence Agency, interest groups and public opinion are examined.

The theory, practice and goals of public administrators at various levels of government, and an analysis of the theory and practice with respect to the goals which are sought.

A study of the historic origins of present day governments, constitutional principles, policies and administrative procedures of major European powers but not to the exclusion of representative smaller powers.

Judicial interpretation of the powers and limitations on each of the three branches of government, the powers and limitations of the national government, the powers and limitations of the states, and the relations between the nation and the states, and among the states themselves.

Judicial decisions concerning limitations on both the national and state governments in the interests of the individual, positive action by the government to promote individual rights, trial procedures and rights of persons accused of crime.

The political thought of such philosophers as Plato, Aristotle, Cicero, St. Augustine, St. Thomas and others is examined in terms of their general philosophical position and historical-cultural context; their current relevance is explored through selected contemporary readings.
316.26 Modern Political Theory (3 class hours)
The political theory and practice of great political thinkers from the development of the modern state system until recent times will be studied and analyzed. In addition, the political-social-economic milieu in which each of the individual theorists lived will be presented.

316.27 Recent Political Theory (3 class hours)
The theory and practice of capitalism, socialism, democracy, anarchism, elitism, fascism, communism, and the welfare state.

316.28 State and Local Government (3 class hours)
A study of the forms and functions of government at the state and local levels.

316.30 The Legislative Process (3 class hours)
A study of representative assemblies, both Congress and state legislatures. Attention will be given to both the formal and informal structure of these bodies and the effect that such structure has on the making of public policy.

316.35 International Organization (3 class hours)
The study of the nature, structure and functioning of international organizations as a means to maintain international peace and security, and to promote international cooperation in economic and social fields. While the emphasis is on global organizations, especially the United Nations, important regional organizations are also included.

316.37 International Law (3 class hours)
Prerequisite: 216.03 or Instructor's Permission
The nature, development and functions of international law with emphasis on the rules of law concerning international legal personality, jurisdiction over persons and places, nation-state relations at sea and in space, diplomatic and consular intercourse, treaties and war.

316.40 Politics of Developing Nations (3 class hours)
Prerequisite: 116.05
Cross-cultural analysis of political systems of selected countries throughout the world, with special emphasis on ecological factors, social structure, ideology, political dynamics, official decision-making apparatus, governmental performance, problems and prospects.

316.50 Political Socialization and Culture (3 class hours)
Prerequisite: 116.05
Examines the manner in which people learn political attitudes, political behavior patterns, and group identifications; focuses on the patterns of political behavior and orientations which typify various societies, and deals with deviant political attitudes and activities.

316.55 Politics of the Regulatory Process (3 class hours)
Prerequisite: 116.05
Examines the regulation of various activities by the independent regulatory agencies of the national government; discusses the powers and procedures of such bodies as the National Labor Relations Board, Interstate Commerce Commission and others; focuses on political factors influencing the behavior of these agencies.

416.05 Political Power and Public Policy (3 class hours)
Prerequisite: 116.05
Focuses on the distribution of political power in society and the impact of existing power configurations on policy; examines interest groups and their influence upon the policy-making process; considers the question of whether local and national power structures dominate decision-making at those governmental levels.

416.10 Administrative Law (3 class hours)
Prerequisite: 116.05
Examines the legal aspects of public administration, including legislative authoriza-
CURRICULA

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\textbf{International Relations Theories and Methods} (3 class hours)

Prerequisite: 216.03 or Instructor’s Permission

Analysis of various approaches to the study of international politics by considering major works on topics such as systems analysis, game theory, communications theory, decision-making analysis, quantification, simulation and military strategy. Emphasis is on evaluating these analytical tools for understanding current international problems.

\textbf{Selected Topics in Political Science} (Class Meetings Variable)

Prerequisite: Instructor’s Permission

Offered irregularly when topics of current interest or specialized focus are proposed by faculty or sought by students and approved by the Department; since course content varies from time to time, students may take the course for credit more than once if the course content is different each time.

\textbf{Honors Course in Political Science}

Prerequisite: Enrollment by special invitation of the Department.

Students who qualify for Honors Projects will be selected near the end of their junior year. With the advice of an instructor, each student who wishes to elect an Honors Project in Political Science will prepare a project outline to be presented to the Political Science staff for approval. The project may be executed during the second quarter of the senior year and/or during the second semester. Students will earn three or six semester hours of elective credits, accordingly.

\textbf{Independent Study in Political Science}

Prerequisite: Approval of topic by Department

Students at the senior level may, with the cooperation of a department advisor, propose independent study projects. These may be pursued under the supervision of the departmental advisor. The credits to be allowed will be assigned by the Department at the time it approves the student’s topic.

\textbf{PRE-PROFESSIONAL COUNSELING}

IN MEDICINE AND THE HEALTH SCIENCES

Students intending to prepare for the study of medicine, dentistry, veterinary medicine, public health, or related health sciences are urged to enroll as liberal arts majors in the sciences or humanities and to consult with the Biology or Chemistry Departments concerning specific course requirements to meet the admissions standards of the respective professional schools. The departments will maintain a library of catalogs, brochures and other information in this area to assist the student in choosing a professional career judiciously, and planning his undergraduate curriculum accordingly, and will also become involved in the eventual preparation of letters of appraisal to the admissions committees of professional schools.

Undergraduate course requirements for various professions in the health sciences vary. In many instances it would be possible for a student to elect and complete an undergraduate major in a field completely unrelated to his eventual professional specialization. A wide and diverse undergraduate preparation is generally deemed desirable and welcomed by medical educators. For these and other reasons, there are no fixed pre-professional curricula nor pre-professional “majors” at the college; the planning of an individual’s program of study is done entirely at the discretion of the individual himself and his departmental advisor, in conjunction with recommendations by members of the pre-professional committee.
PSYCHOLOGY

Professors: E. Campbell, Chairman; Lide, O'Neill, Saxton, Smith, Tiffany
Associate Professors: Geierhaas, Houston
Assistant Professors: Braithwaite, Gorczynski, Hohmuth, Klores, Ramos, Stierhem, Wang, Weinberg

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*See p. 30 for swimming requirements.
**May be used to fulfill 6 semester hours of requirements in History or Social Sciences.
***By arrangement with the department.

**Minor in Psychology**

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<td>225.01-02</td>
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<tr>
<td>225.01-02</td>
<td>6</td>
<td>325.51</td>
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225.01 *Introductory Psychology I* (3 class hours)
Fundamentals of psychology, stressing motivation, behavior dynamics, learning.
Student participation in experimental studies.

225.02 *Introductory Psychology II* (3 class hours)
Prerequisite: 225.01

Total 18
Continuation of 225.01 stressing perception, individual differences, physiological and social statistics.

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>225.14</td>
<td>Group Experience in Educational Psychology</td>
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<td>(75 minute period)</td>
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<tr>
<td></td>
<td>Prerequisite: Three semester hours in psychology</td>
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<td></td>
<td>Application of psychological principles to issues and problems encountered in teaching.</td>
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<tr>
<td>225.14</td>
<td>Educational Psychology (3 class hours)</td>
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<tr>
<td></td>
<td>Psychological principles of learning, motivation, maturation, socialization, mental health and evaluation as applied in education and specifically in the classroom.</td>
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<tr>
<td></td>
<td>Emphasis on recent developments.</td>
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<tr>
<td>225.21</td>
<td>Social Psychology (3 class hours)</td>
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<td>Prerequisite: Three semester hours in psychology</td>
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<tr>
<td></td>
<td>Individual behavior in social situations. Development and change of beliefs and attitudes. Specific topics: morale, prejudice behavior, leadership, propaganda, dynamics of small groups and others.</td>
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<tr>
<td>225.22</td>
<td>Psychology of the Black Experience (2 class hours; 2 laboratory hours)</td>
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<td></td>
<td>Evaluation of psychological principles, theories, and assessment techniques in relation to the personality and behavioral development of African-Americans. Examination of such factors as learning, motivation, parental roles, language development, self concept, emotional adjustment, and antisocial behavior with regard to the total Black experience.</td>
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<tr>
<td>225.31</td>
<td>Learning Theory (3 class hours)</td>
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<td>Consideration of major learning theories and their applications.</td>
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<tr>
<td>225.33</td>
<td>Perception (2 class hours; 2 laboratory hours)</td>
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<td>Prerequisite: Six semester hours in psychology</td>
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<td></td>
<td>Examination of the experimental study of perception and its relation to theory and research in sensation, cognition, personality, motivation, and learning.</td>
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<tr>
<td>225.40</td>
<td>Psychology of Human Differences (3 class hours)</td>
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<td></td>
<td>Methodology and findings regarding group differences in heredity, development, learning, education, physique, personality, intelligence, sex, race, and socioeconomic groupings. (Formerly Differential Psychology)</td>
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<td>225.41</td>
<td>Child Psychology (3 class hours)</td>
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<td>Prerequisite: Three semester hours in psychology</td>
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<tr>
<td>225.42</td>
<td>Adolescent Psychology (3 class hours)</td>
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<td></td>
<td>Emotional, mental, physical, and social development of youth from conception through adolescence. Influences of the home, school, and community on adolescence.</td>
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<tr>
<td>225.44</td>
<td>Psychology of Personality (3 class hours)</td>
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<td>Prerequisite: Six semester hours in psychology</td>
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<td></td>
<td>Contemporary approaches to the study of personality. Detailed treatment of various modern theories of personality. Major determinants and dynamics of personality organization.</td>
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<tr>
<td>225.51-52</td>
<td>Psychology Laboratory I and II (2 class hours; 2 laboratory hours)</td>
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<tr>
<td></td>
<td>Prerequisite: 225.01, 325.53</td>
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</tr>
<tr>
<td></td>
<td>An introduction to experimental methodology in psychology stressing animal experimentation in first semester, human in the second. Semesters may be taken in any order.</td>
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</table>
325.53 Statistics in Psychology I (2 class hours; 2 laboratory hours)
Elementary calculation and interpretation of standard statistical techniques. Parametric measures up to elementary analysis of variance, factorial design. Introduction to nonparametrics.

325.54 Statistics in Psychology II (2 class hours; 2 laboratory hours)
Prerequisite: 325.53
Intensive exploration of statistical inference, measurement, and research design. Emphasis on the design of experiments and the application of advanced statistical techniques.

325.56 Physiological Psychology (2 class hours; 2 laboratory hours)
Prerequisite: Six semester hours in psychology
Considers relationships between physiological processes and various psychological processes including the abnormal. Prior course work in biology desirable.

325.60 History and Systems of Psychology (3 class hours)
Prerequisite: Six semester hours in psychology
Historical development of psychological theories with emphasis on contemporary systems including functionalist, behaviorist, field, phenomenological, psychoanalytical, and dynamic theory.

425.40 Introduction to the Principles of Counseling (3 class hours)
Prerequisite: Six semester hours in psychology
Introduction to counseling principles. Appropriate and effective beginning counseling techniques in practical situations. Methods of collecting and assembling data. Professional problems and professional standards.

425.41 Introduction to Abnormal Psychology (3 class hours)
Prerequisite: 325.44 or concurrent
Principal types of behavior pathology, including neurotic, psychotic, and psychopathic disorders. Variables which theories and research indicate as important in the development of abnormal behavior.

425.42 Introduction to Clinical Psychology (2 class hours; 2 laboratory hours)
Prerequisite: 425.41
Introduction to common clinical methods of personality assessment and diagnosis. Introduction to most common therapeutic theories and techniques.

425.44 Field Study in Psychology (Various) (2 class hours; 4 laboratory hours)
Prerequisite: Permission of the instructor
Combined academic study and field experience in applying psychological principles and techniques at various area institutions. Differing course content from time to time depending on availability of instructors and institutions. Areas include, among others, experience at mental health institutions, prisons, and community centers. May be taken, by advisement, more than once for credit.

425.46 Mental Health (3 class hours)
Prerequisite: Six semester hours of psychology
Examination of problems involved in self-understanding and understanding of others. Discussion of personality and personal value systems. Elementary discussion of common behavior problems.

425.47 Behavior Modification (3 class hours)
Prerequisites: 325.31, 325.44, 325.51
Examination of psychological principles governing human behavior change in social learning. Application of methods derived from these principles to the modification of behavior in familial, educational, clinical and other social settings.

425.50 Tests and Measurements (2 class hours; 2 laboratory hours)
Prerequisite: 325.53
Introduction to principles and instruments of psychometrics as applied in various areas of assessment.
Experimental Psychology (Various) (2 class hours; 2 laboratory hours) 3

Prerequisite: Permission of the Instructor
Study in laboratory milieu of problems in psychology. Differing course content from time to time depending on availability of instructors and facilities and student interest. Possible areas include, among others: human learning and cognition, psychophysics, comparative psychology, original experiment. May be taken, by advisement, more than once for credit.

Research Methods in Psychology (Various) (2 class hours; 2 laboratory hours) 3

Prerequisites: 425.51 and 425.53
Psychological research methods as exemplified in one area of research: child, clinical, educational, social psychology, or other area. Research project required. May be taken, by advisement, more than once for credit.

Independent Study in Psychology 3-15

Prerequisite: Permission of the instructor
For advanced students. Depth study of a carefully defined area of psychology. Close consultation with faculty.

Seminar in Psychology (Various) (3 to 6 class hours) 3, 6

Prerequisite: Permission of the instructor
Small group study in various psychological areas. Opportunities afforded for group projects, research, and field work under the direction of staff. May be taken, by advisement, more than once for credit.

SPECIAL EDUCATION

Professors: S. Lemeshow, S. Jordan, P. Jensen, D. Longenecker
Associate Professors: S. Hritz - Chairman, L. Moore
Assistant Professors: A. Brandinger, D. DiDia, J. Feehan, D. Ferber, H. McRae, R. Niederhuber, H. Riley
Instructors: A. Iriarte, B. Nadler

The Department of Special Education offers two (2) major curriculums. The first program is designed to prepare students planning to teach children with "developmental handicaps." These include children typically considered intellectually retarded, emotionally disturbed, brain injured, and/or multiply handicapped. The New Jersey certificates for teaching the handicapped no longer distinguishes between these diagnostic labels. Thus, the New Jersey teaching certificate establishes conditions. This program prepares students for this New Jersey certificate, and the term "developmentally handicapped" is used to connotate and emphasize the fact that no matter what diagnostic label may be put on a child, what is important is that his handicap adversely affects his progress in any one of a number of areas of growth and development.

The second special education major is for students interested in teaching those with impaired hearing (i.e. deaf or hard of hearing). This program will qualify the student for the New Jersey certificate to teach children who are either deaf or hard of hearing and with the proper selection of electives, prepare the student to meet most of the requirements for National Certification to teach the deaf and hard of hearing. For a student to meet these National Standards he must complete additional course requirements. All students interested in meeting these National Standards should follow carefully the recommendations of their advisor.
# CURRICULA

## Education of the Developmentally Handicapped

### First Year*

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course</th>
<th>Sem.</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>English I</td>
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<td>History or Social Studies</td>
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<td>Arts and Humanities</td>
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<th>Course No.</th>
<th>Course</th>
<th>Sem.</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>129.01</td>
<td>Survey of Exceptional Children</td>
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<td>2</td>
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<tr>
<td>129.02</td>
<td>Observation of Exceptional Children I</td>
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<th>Sem.</th>
<th>Hrs.</th>
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### Second Year

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<th>Hrs.</th>
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<tr>
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<td>325.41</td>
<td>Child Psychology</td>
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<td>328.35</td>
<td>Communication Disorders I</td>
<td></td>
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<td>History or Social Studies</td>
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<td>229.04</td>
<td>Resources and Services for the Handicapped</td>
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<th>Hrs.</th>
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<td>329.01</td>
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<tr>
<td>329.02</td>
<td>Curriculum Development for the Handicapped II</td>
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<td>329.03</td>
<td>Foundations of Reading for the Handicapped</td>
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<td>Practicum I</td>
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<tr>
<td>317.05</td>
<td>Contemporary Health Problems</td>
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<tr>
<td>313.60</td>
<td>Development of Educational Thought</td>
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<td>Electives</td>
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*See p. 30 for swimming requirement.

**May be applied to History and Social Sciences requirements of 12 S.H.
## Education of the Hearing Impaired

### First Year*

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<td>English I</td>
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<td>129.01</td>
<td>Speech I</td>
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<td>129.02</td>
<td>Observation of Exceptional Children I</td>
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<td>Mathematics</td>
<td>6</td>
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<td>Survey of Exceptional Children</td>
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<td>Science</td>
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*Total for Year 31

### Second Year

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<td>225.01</td>
<td>Introductory Psychology I</td>
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<td>325.41</td>
<td>Child Psychology</td>
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<td>329.32</td>
<td>Hearing Tests and Auditory Training</td>
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<td>228.25</td>
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*Total for Year 33

### Third Year

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<td>329.02</td>
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<td>329.03</td>
<td>Foundations of Reading for the Handicapped</td>
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<td>313.60</td>
<td>Development of Educational Thought</td>
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*Total for Year 31

### Fourth Year

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<td>Practicum for Hearing Impaired</td>
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<td>413.40</td>
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<td>413.01</td>
<td>Student Teaching I</td>
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</tbody>
</table>

*Total for Year 29

*See p. 30 for swimming requirement.

**May be applied to History and Social Sciences requirements of 12 S.H.
129.01 **Survey of Exceptional Children** (2 class hours)
Introduction to the education of the mentally retarded, physically limited, deaf or hard of hearing, blind or partially sighted, socially and emotionally maladjusted, speech defective, and the intellectual gifted.

129.02 **Observation of Exceptional Children I** (4 lab hours)
*Prerequisite or concurrently:* 129.01.
Taken in conjunction with 229.01, Survey of Exceptional Children, this course provides the student with an opportunity to observe children with different types of handicaps and presenting different educational problems, including children with behavior problems, sensory and/or motor disabilities, brain injuries, retarded development, and multiply handicapped.

229.03 **Psycho-Social Evaluation of the Handicapped** (3 class hours)
*Prerequisite:* 129.01.
An introduction to the psychological and social problems encountered by Handicapped children in our society, especially during their school years. The effects these problems have on the development and learning processes of these children will be examined. Commonly used techniques and procedures for evaluating and understanding some of the psychological, educational, and social problems of Handicapped children will be surveyed.

229.04 **Resources and Services for the Handicapped** (2 class hours)
*Prerequisite:* 129.01.
Orientation to the resources and services available and essential to the Handicapped child and his family. An historical perspective of the development of these resources by pioneers in the fields of special education will be presented. Particular emphasis will be placed on the proper referral and use of resources in the schools, clinics, residential centers, rehabilitation facilities, sheltered workshops, and other public and private agencies serving Handicapped children.

229.31 **Education of the Hearing Impaired** (2 class hours)
*Prerequisite:* 129.01.
History, philosophy, programs, and role of the deaf or hard of hearing in society. Development of a familiarity with the bibliographic source materials in the field on the health, education, and welfare of the deaf or hard of hearing.

329.01 **Curriculum Development for the Handicapped I** (3 class hours)
*Prerequisite:* 129.01.
Practice in the location and selection of appropriate materials related to the nature and needs of the handicapped. Guidelines for choosing, planning and coordinating materials, books and equipment into activities in basic areas of curriculum for the handicapped. (Arithmetic, Social Studies, Science, Language Arts, Creative Arts). Attention is given to the development of teacher made materials. A study of existing programs organized specifically for use with the handicapped.

329.02 **Curriculum Development for the Handicapped II** (4 class hours)
*Prerequisite:* 329.01.
An integrated course combining the methods and techniques of teaching the handicapped. An understanding of the techniques and methods of teaching science, social studies and the creative arts to the handicapped. The nature of arithmetic, the modification of curriculum and the application of techniques to meet the child's needs. Attention is given to the development of methods and materials for teaching handicapped children in relation to his social and physical world.

329.03 **Foundations of Reading for the Handicapped** (3 class hours)
*Prerequisite:* 129.01.
To provide the student with a basic understanding of the developmental processes
and problems presented by the handicapped in learning reading and language arts in comparison to the normal child. Presents techniques and methodology to aid the student in gaining insight into the nature and process of reading and language development.

329.04 Remedial Reading for the Handicapped (with Lab I)  
(3 class hours, 2 lab hours)  
Prerequisite: 329.03.  
A basic course designed to aid in recognizing and dealing with various reading problems encountered in the classroom. The laboratory work involves supervised teaching experience using corrective and remedial reading techniques with handicapped children.

329.10 Speechreading (2 class hours)  
Prerequisite: 129.01.  
Techniques of learning and teaching speechreading (lipreading). Special emphasis on the role of speechreading in the development of language, communication and cognitive skills in hearing impaired children.

329.11 Language Development for the Hearing Impaired (2 class hours)  
Prerequisite: 129.01.  
A study of communication processes and theories of language development in the hearing impaired. Introduction to techniques of developing receptive and expressive learning skills for children with hearing impairments.

329.22 Practicum I (classroom observation each morning, weekly seminar)  
Prerequisite or concurrently: 329.02 and 329.03.  
Practicum in observation and participation at various developmental levels from Kindergarten through 5th. During first three weeks students rotate through classes at each of these six class levels. Thereafter, they spend 6 weeks in one class at Kindergarten to 2nd followed by 6 weeks in one class at 3rd to 5th. Students observe developmental behavior and learning levels of different children, appropriate instructional methods and materials used by cooperating teachers, special demonstration lessons by college supervisor, and participate as teacher assistants in small groups of children as in tutorial roles.

329.32 Hearing Tests and Auditory Training (2 class hours)  
Prerequisite: 129.01.  
Techniques and interpretation of pure tone tests. Significance of bone conduction testing and speech audiometry in diagnosis. Individual and group hearing aids will be used in practicing techniques of auditory training with deaf children.

329.35 Teaching Speech to the Deaf I (2 class hours)  
Prerequisite: 129.0.  
Principles and techniques for developing speech and oral language in young deaf children. Study of a system of phonetics, and consideration of the normal development of speech are included. Guided observation.

329.37 Teaching Speech to the Deaf II (2 class hours)  
Prerequisite: 329.35.  
Techniques for reinforcing and monitoring the speech of school-age deaf children. Attention to the articulation problems of deaf with multiple handicaps. Demonstrations and supervised practice with individuals and groups.

329.39 Teaching Language to the Deaf (3 class hours)  
Prerequisite: 329.11.  
Observing and planning for the systematic development of oral and written language skills in school-age deaf children. Consideration of the language problems of deaf children with multiple handicaps.
429.02 Diagnostic Evaluation of Exceptional Children
(3 class hours, 2 lab hours)
Prerequisite: permission of instructor.
Orientation to the instruments and procedures used in discovering individual differences among exceptional children and youth. Evaluation of tests as they contribute to the teacher's understanding of individual behavior. Professional responsibilities in the use of educational and psychological test results.

429.07 Practicum II (classroom observation each morning, weekly seminar)
Prerequisite: 329.02, 329.04, and 329.22.
Practicum in observation and participation with different types and age levels of handicapped children in at least two settings. Students observe the unique developmental behavior and learning problems of children with various handicaps, appropriate instructional methods and materials used by cooperating teachers, special demonstration lessons by college supervisors, and participate as teacher assistants with small groups of children or in tutorial roles.

413.01 Student Teaching I
Prerequisite: senior standing and department approval.
Eight weeks of teaching the handicapped in approved special education programs under direct supervision of the cooperating teachers and the general supervision of college faculty. Observation, participation, and responsible teaching in a special educational setting.

429.10 Student Teaching II
Prerequisite: 413.01 and department approval.
A second eight week period of teaching the handicapped in an approved special education program under direct supervision of the cooperating teachers and the general supervision of college faculty. Observation, participation, and responsible teaching in a special educational setting.

429.98 Seminar in Special Education (15 class hours)
Identification and analysis of the current issues and problems in the field of the developmentally handicapped. Exploration of topics for the completion of an independent study project. Synthesis of previous learnings (course work and experience) in the field and implications for the future.

429.40 Practicum in Teaching the Hearing Impaired (2 class hours)
An overview of the various facets of the school for the deaf is followed by intensive observation in classes for the deaf at several levels, and participation in work with individual children. The student aids the teacher in the development of materials. The course includes the observation of a series of demonstration lessons, followed by discussion with the teacher presenting the lesson.

429.95 Seminar in Education of the Deaf, Hearing Impaired (2 class hours)
A follow-up of student teaching, creating a climate for free exchange of reactions to the teaching experience. An opportunity to clarify goals and objectives of professional life and personal responsibility for student achievement. Field trips to selected educational settings are a focal point of discussions.
This program provides basic training in all phases of remedial speech. It prepares speech therapists who function as members of the special service team in either an educational or hospital setting. Study in all areas of speech dysfunction is offered. A varied practicum, including observation and clinical work with children and adults who have speech problems, extends from the junior through the senior year. Upon graduation, the student who elects the certification program is qualified for the New Jersey Certification in Speech Correction. The non-certification program is pre-professional in structure and is available for the student who wishes to continue training and clinical practice on the graduate level and who plans to develop a second area of study.

Bachelor of Science in Speech Pathology and Audiology with Certification in Speech Correction

First Year

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Second Year

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Total for Year: 32

Third Year

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Curricula

Fourth Year

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*See p. 30 for swimming requirement.
*A year of a foreign language is recommended.

Bachelor of Science in Speech Pathology and Audiology
Non-Certification Program

First Year**

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Second Year

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Third Year

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Fourth Year

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<td>Oral Communication Techniques</td>
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<td>Total for Year</td>
<td>30</td>
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</table>

*May be used to fulfill Humanities Requirements.
*See p. 30 for swimming requirement.
128.02 Voice and Diction (3 class hours)
Improvement of enunciation through oral practice. The application of results of
dialect surveys of American speech in conjunction with applied studies of the
acoustics and physiology of voice. Limited to 15 students.

228.02 Study in Interpersonal Communication (3 class hours)
For those preparing for professions that require exceptional interpersonal understand-ning. Focus on the group experience and situations that encourage a greater
awareness of self and others. Limited to 20 students.

228.15 Acoustic Phonetics (3 class hours)
Prerequisites: 128.02 or permission of instructor
Broad and narrow transcription of American English in International Phonetic Al-
phabet; prosodic features; introduction to acoustic phonetics; elements of instru-
mental analysis.

228.25 Speech and Hearing Sciences (3 class hours)
Prerequisites: 128.02, 228.15.
Intense study of the mechanisms and processes of speaking and hearing. Consider-
ation of the production and reception of speech by normal structures and of the
malformations and malfunctions resulting in impaired speaking and hearing.

228.03 Language and Speech Development (3 class hours)
Prerequisites: 228.15, 228.25
An inter-disciplinary investigation of the nature of normal language and speech
development.

328.04 Oral Communication Techniques (3 class hours)
Examination of acting, oral interpretation, and creative dramatics; study of how
these speech arts can enhance oral communication and be related to other disci-
plines.

328.05 Clinical Laboratory I (1 class hour)
Modified program of observation and practical experience in studies of speech de-
velopment for the non-certification major.

328.06 Audiology I (3 class hours)
Prerequisites: 228.25, 228.30.
Study of and direct experience in the various methods of hearing testing. Consider-
ation of the types and causes of hearing impairment and the role of audiometry
in diagnosis.

328.07 Clinical Laboratory II (1 class hour)
Modified program of observation and clinical experience for the non-certification
major in conjunction with Communication Disorders I.

328.08 Communicative Process (3 class hours)
Prerequisites: Junior standing. The processes of speech, language and communi-
cation, phylogenetic and ontogenetic development of oral communication in man-
and animal, uses of non-verbal language, and the relationship of the above to the
individual, the group and the environment.

328.35 Communication Disorders I (3 class hours)
Prerequisites: 228.15, 228.25.
The communication disorders of language, articulation, voice and stuttering.

328.40 Audiology II (3 class hours)
Prerequisite: 328.06. Study of the following aspects of identifying, habilitating and
rehabilitating the aurally handicapped; screening tests, sound amplification, audi-
ory training, speech reading and speech conservation.

313.57 Instructional Methods in Speech Pathology (2 lecture/2 laboratory hours)
Prerequisites: Junior Standing. Analysis of methods, techniques and procedures
for organizing and maintaining speech and hearing programs in school and clinic settings based on observation of professional and advanced student clinicians. Limited guided participation in the therapy process and involvement in school speech screenings.

313.58 Diagnostic Methods in Speech Pathology (3 lecture hours)
Prerequisites: Junior standing. Study of the development and administration of standardized tests used by speech pathologists as aids to the diagnosis of speech disorders and the planning of treatment.

428.07 Communication Disorders II (3 class hours)
Prerequisites: 328.35 Advanced study of the theory and practice of therapy procedures used with the speech handicapped. Coordinated with direct experience in Clinical Practice I. (413.55)

428.08 Senior Studies in Speech Pathology and Audiology (3 class hours)
Prerequisites: Speech Pathology and Audiology Major-Senior standing.
Individual study, under faculty supervision, designed to enable a student to engage in intensive investigation in an area of major specialization and to acquaint him with research procedures.

428.09 Clinical Laboratory III (1 class hour)
Modified program of observation and clinical experience for the non-certification major. Coordinated with Communication Disorders II.

428.10 Clinical Laboratory IV (1 class hour)
Modified program of observation and clinical experience for the non-certification major. Coordinated with Senior Studies in Speech.

413.30 Speech Improvement in the Elementary Classroom (3 class hours)
Introduction to elementary (Kg. to 6th) classroom activities for development of improved speech and oral language skills. Role of the classroom teacher in correcting speech difficulties.

413.55 Student Teaching-Clinical Practice I
Prerequisites: Completion of freshman, sophomore and junior speech courses. Supervised clinical experience in speech therapy with children and adults. Coordinated with Speech Therapy and Diagnosis I.

413.56 Student Teaching-Clinical Practice II
Prerequisites: Same as for 413.55 plus successful completion of 413.55. Continuation of Clinical Practice I. Supervised clinical experience in speech diagnosis and therapy with children and adults. Coordinated with Speech Therapy and Diagnosis II (428.08).

SPEECH COMMUNICATION AND THEATRE

Professor: Curry
Associate Professors: Clark, Heap. Chairman; Hogstrom, Wegner
Assistant Professor: McLeod
Instructors: Coslick, McCullough, McGrath

Speech Communication and Theatre is concerned with the oral and visible forms of human interaction. The program affords maximum flexibility for student and faculty advisor to develop course sequences individually designed to each student's needs. This approach facilitates close coordination of course work and performance activities. Two degree programs are offered: the liberal arts and the teaching majors in speech communication and theatre.
### First Year*

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<td>138.05</td>
<td>Introduction to Theatre</td>
<td>3**</td>
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<td>138.05</td>
<td>Introduction to Theatre</td>
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**Teacher education students will select in the junior year Development of Educational Thought, Educational Psychology, Contemporary Health Problems, Methods of Teaching High School Speech, and Junior Professional Experience; in the senior year the student will select Student Teaching and Teacher in the School and Community.**

*See p. 30 for swimming requirement.

**May be used to fulfill Humanities requirements.

### Second Year

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### Third Year

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### Fourth Year

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Teacher education students will select in the junior year Development of Educational Thought, Educational Psychology, Contemporary Health Problems, Methods of Teaching High School Speech, and Junior Professional Experience; in the senior year the student will select Student Teaching and Teacher in the School and Community.

*See p. 30 for swimming requirement.

**May be used to fulfill Humanities requirements.

### Minor in Speech Communication and Theatre

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<td>Introduction to Theatre</td>
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### Second teaching field

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<td>Introduction to Theatre</td>
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<td>238.05</td>
<td>Public Speaking</td>
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<td>338.45</td>
<td>Discussion &amp; Debate</td>
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<tr>
<td></td>
<td>Examines selected plays; playwrights and their</td>
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<td>of mass communication.</td>
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<td>Materials are drawn, primarily, from advocacy</td>
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<td></td>
<td>found in discussion of current controversies.</td>
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<tr>
<td>138.07</td>
<td>Speech I: Fundamentals of Public Speaking</td>
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<td></td>
<td>An introductory study of the techniques of</td>
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<td>public speaking. Designed to develop proficiency</td>
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<td>in oral communication. Attention given to the</td>
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<td>fundamental processes of ideas, selection and</td>
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<td>organization of materials, use of oral</td>
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<td>language, bodily expression, and speaker-listen</td>
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<td>ter relationships. Each student will prepare a</td>
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<td>number of informative and persuasive speeches.</td>
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<td>138.08</td>
<td>Speech I: Introduction to Discussion and Debate</td>
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<tr>
<td></td>
<td>Nature, purposes, limitations of discussion and</td>
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<td>specific types of debate. General principles</td>
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<td>for organizing and leading specific types of</td>
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<td>discussion. Special problems of the various</td>
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<td>types of debate, including such problems as</td>
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<td>building the case, developing the debate</td>
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<td>speech, and handling refutation.</td>
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<td>138.20</td>
<td>Basic Stage Makeup</td>
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<td>A practical study of the basic theory, design,</td>
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<td>and application of stage makeup. Course work</td>
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<td>may be coordinated with student’s participation</td>
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<td>in performance activities.</td>
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<td>238.01</td>
<td>Oral Interpretation of Literature</td>
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<td><em>Prerequisite:</em> Speech I</td>
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<td>Objectives of the course: the development of</td>
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<td>the individual reader in prose, poetic, and</td>
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<td>dramatic literature; a knowledge of the material</td>
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<td>and literary sources.</td>
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<td>238.05</td>
<td>Public Speaking</td>
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<td><em>Prerequisite:</em> Speech I</td>
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<td>Nature of the rhetorical task. Methods of</td>
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<td>audience analysis, research, organization of</td>
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<td>materials, preparation and delivery. Study of</td>
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<td>argument, evidence and speech criticism.</td>
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<td>238.06</td>
<td>Independent Study in Speech and Theatre</td>
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<td>Individual study under faculty supervision.</td>
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<td>Work may be coordinated with participation in</td>
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<td>performance activities. May be arranged to fit</td>
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<td>semester or quarter schedules. Student may</td>
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<td>earn up to 6 s.h. in this series. Amount of</td>
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<td>credit for any problem determined by supervising</td>
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<td>faculty prior to enrollment.</td>
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<td>238.09</td>
<td>Theatre History</td>
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<td><em>Prerequisite:</em> 138.05 or consent of Instructor</td>
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<td>Intensive study of selected plays illustrating</td>
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the theatre. Emphasis upon the production environment with the aim of providing perspective for the student's own theatrical experience. Course work will be articulated to the performance program of the Department.

238.15 **Applied Phonetics** (3 class hours)  
Prerequisite: Speech I  

238.17 **Acting I** (3 class hours)  
Prerequisites: 138.05 or consent of Instructor  
Primary emphasis upon the psychology of acting. Intensive work on fundamentals: role-analysis, stimulation of imagination, motivation, concentration and relaxation on the stage. Introduction to specialized stage techniques, visual and auditory.

238.18 **Acting II** (3 class hours)  
Prerequisite: Acting I  
Emphasis on stage performance and upon the systematic development of a major characterization. Introduction to various theories of acting and to concepts of historical styles. Stress upon ensemble acting and culmination of class work in performance before selected audiences.

238.20 **Theatre Production Workshop** (6 class hours)  
Prerequisite: Consent of Instructor  
Study of theatrical production through intensive supervised preparation of scenes and short plays, culminating in performance for selected audiences and in evaluation of performance.

238.22 **Theatre Criticism** (3 class hours)  
Prerequisite: 138.05 or equivalent  
A study of selected major theorists and critics of theatre, both past and present. Application of critical principles to the evaluation of performances attended during the semester.

238.25 **Stage Lighting** (2 class hours)  
Study of the elements of electricity, refraction, reflection, and color as they relate to theatrical lighting. Practice in the design of lighting and the implementation of light plots. Study of basic lighting equipment.

238.27 **Theatrical Costuming** (2 class hours)  
Study of and practice in the use of costume to amplify characterization and reinforce theme. Attention given to the requirements of plays representing a variety of periods, styles and cultures.

238.35 **American Dialects (Eastern)** (3 class hours)  
An examination of the pronunciation of the American English spoken east of the Mississippi River. The course deals with the findings of dialect geography rather than methods of dialect research.

238.40 **Radio Workshop** (4 class hours)  
Prerequisite: Speech I  
Provides an understanding of broadcasting methods. The student uses the facilities of campus radio station WTSR to practice skills in announcing, newscasting, radio acting, and other broadcasting techniques.

238.45 **Introduction of Broadcasting** (3 class hours)  
Prerequisite: Speech I  
Basic course in broadcasting presents structure and character of American
broadcasting as influenced by: physical nature of medium, origin and growth of broadcasting, economic basis of operation, and social forces.

338.02 Creative Dramatics (2 class hours)
Emphasis on methods of development of creativity in children through theatrical concepts. Presentation of improvised plays based on literature, pictures, news events, social problems, and educational procedures.

338.17 Choral Speaking (2 class hours)
Introduction to basic principles of this form of oral interpretation. Educational uses of choral speaking. Active participation as members and directors of small choirs.

338.20 Play Direction (3 class hours)
Prerequisites: One drama course
Study of modern theories of play direction. Practical experience for each student; orderly steps of play direction, culminating in the full presentation of a short play or unitary scene for an audience.

338.25 Stagecraft (3 class hours)
Methods of designing and executing the lighting and scenery for plays of all types. Included study of historical development of physical theatre and current styles of design.

338.26 Readers Theatre (3 class hours)
Prerequisites: 238.17, 238.01 or consent of instructor
Systematic study of selected literature utilizing Reader’s Theatre techniques to provide deeper insights into the nature of the dramatic experience.

338.28 Public Discussion of Vital Issues (3 class hours)
Prerequisite: 238.05, 338.45 or consent of instructor.
A study of rhetoric and propaganda as they are used in controlling public opinion through debate, public speaking, panel discussion, theatre, films, radio, television and other forms and media of public address. Principles of opinion control are developed from analysis of their use in current controversies.

338.36 Semantics (3 class hours)
The branch of linguistics that deals with meaning. Word derivations, historical changes in meaning, and neologisms. The behavior patterns reflected in symbol systems. Several models of semantic structure.

338.45 Discussion and Debate (3 class hours)
Prerequisite: Speech I
Designed to enable students to discharge responsibilities in society by making practical application of the basic principles of group dynamics and group decision-making.

338.50 Playwriting (3 class hours)
Prerequisite: English I
Analysis of the elements of drama and experience in the writing of plays. Class criticism of student manuscripts and of successful plays. (This course is offered in alternate years by the English Department.)

338.34 Phonological Theory (3 class hours)
Prerequisite: 238.15 or 214.43 or equivalent
The sound system of English: the distinct phonologic elements and the relations among them. Those general theories which seek to explain the native speaker’s knowledge of the sounds of his language.

338.30 Rhetorical Theory and Criticism (3 class hours)
Prerequisite: Speech I and/or 238.05 or consent of instructor
An introduction to the basic terminology, philosophy and methodology of the development of speech theory and criticism, emphasizing Greek and Roman rhetoricians.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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| 338.47      | Advanced Discussion                              | 3       | Prerequisite: Speech I  
The course is designed to give the student a basic understanding of the primary functions of discussion, the experience of personal involvement in varied forms of discussion, and a sensible and pragmatic approach to the use of discussion as an everyday community activity with emphasis on the cooperative problem-solving method. |
| 438.20      | Parliamentary Procedure                          | 3       | Intensive drill in standard parliamentary procedure; classification and precedence of motions; by-laws of deliberative organizations; nominations, elections, duties; committees; conferences, conventions, congresses, parliamentary contests.                                                                                                                                          |
| 438.25      | Senior Studies in Speech                         | 3       | Individual study, under faculty supervision, designed to enable a student to engage in intensive investigation in an area of major specialization and to acquaint him with research procedures. (open only to senior speech and theatre majors)                                                                                                      |
| 438.06      | The Production of Musical Theatre                | 2       | Prerequisites: Any one of the following: 6 s.h. Applied Music; 123.60, 223.39, 223.46, 323.03, 323.55, 323.60, 423.20, 423.25, 238.50, 338.20, 338.25. Development of the artistic and technical skills concerned with the production of musical theatre; analytical evaluation of the extant literature leading to representative short productions; introduction to organizational techniques required in a multi-art performance form. |
| 313.56      | Methods of Teaching High School Speech           | 2       | Prerequisites: Junior standing plus completion of freshman, sophomore Speech and English courses. Required of all Speech Communication teaching majors and minors. Orientation in speech education. Objectives: growth in comprehension of persistent problems; development of resources in locating speech activities and materials; awareness of trends.                                           |
| 413.01      | Student Teaching                                 | 8       | See Educational Field Experience.                                                                                                                                                                                                                                                                                                           |
Evening Courses

Late afternoon, evening, and Saturday morning courses are offered through the Division of Continuing Education. These courses are approved for credit toward undergraduate degrees in various fields of teacher preparation and liberal arts, and for teacher certification. An annual bulletin describes the courses offered by this division; it is available in the Office of Continuing Education, Green Hall.

Summer Sessions

The college conducts two five-week summer sessions, normally beginning about the middle of June. Day school students interested in working toward their degrees in the summer session must obtain permission from the Office of Academic Advisement and Evaluation. Additional information may be obtained at the Office of Continuing Education in Green Hall.

Students will generally not be permitted to take more than six credits in each of the summer sessions.

GRADUATE PROGRAMS

Trenton State College offers the following graduate degree programs:


Master of Arts programs in the areas of Mathematics, Music, and Speech Pathology.


Details about graduate programs may be secured from the Graduate Bulletin.

STUDENT ACTIVITIES

Student Activities Office. Located in the HUB, the Student Activities Office provides a variety of services including duplicating, sign printing, scheduling of important meetings and events, and help with the planning of activities.

New Student Orientation Program. Two orientation programs are provided for freshmen. During the summer prior to entering the college, freshmen are
invited to attend one of the programs held for three days each week, during a
six-week period. The second program is held for two days just before classes
begin. An orientation for transfer students is also held in September.

Publications and Communications. The college newspaper, The Signal,
founded in 1855, is one of the oldest college publications in the country. The
college yearbook, The Seal, is issued each year to all college students. The
Chimes, the college literary magazine, is published annually by students under
the guidance of the English Department.

The General Information Handbook, distributed annually, contains informa-
tion about the college, services, policies and regulations, and student
organizations.

Radio Station WTSR is a student-operated FM radio station located at 89.7
on the FM dial. The station staff plans and executes a series of entertaining
and educational programs of music, news, sports and special features for the
college and surrounding community.

College Union. The College Union organizes educational, cultural, and
social programs, such as concerts, art exhibits, and recreational programs.

The College Union Board is a student-faculty group that initiates, plans, and
finances the general program of the College Union. It is responsible for opera-
tional policy and maintenance of College Union facilities. These include the
HUB and Phelps Hall. The HUB contains a lounge, snack bar, game room,
conference rooms for group meetings, and the Student Activities Office.

Honorary Societies and Clubs. Sororities, fraternities, and other social
religious organizations are listed and described in the General Information
Handbook.

Music Organizations. The Band, which is open to all qualified men and
women of the College, performs at various events and presents at least one
concert a year.

The Choir, composed of members selected by audition, conducts several
programs each year, including concert tours. The membership limit is 60.

The College Chorus is open to undergraduate students, graduate music
students, and faculty. No voice testing is required for admission, but it is de-
sirable that every member show evidence of prior choral experience.

The College Orchestra contains three distinct organizations: a complete
symphony orchestra, a chamber string orchestra, and a symphonet. Par-
ticipation in any of these groups is open to any student who possesses the
necessary performing skills.

College Theatre. Plays, varying from traditional to experimental, from
comedy to tragedy, and from classical to modern, are presented annually.
All students are encouraged to participate in acting, production crews, scenery
design and construction, costuming, lighting, publicity, and house managing.

The Studio Theater program offers facilities and faculty guidance for student-
initiated theater productions. Students are provided with an opportunity to par-
ticipate in acting, scene design, set construction, stage lighting, and related
skills.
Athletics and Intramural Sports. The Men’s Athletic Association sponsors varsity games in soccer, football, cross-country, basketball, wrestling, golf, baseball, track, swimming, tennis, and gymnastics. The College is a member of the National Association of Intercollegiate Athletics, the National Collegiate Athletic Association, and the New Jersey State College Athletic Conference. An undergraduate male is eligible to participate in varsity sports.

The Men’s Intramural Athletic Council, in cooperation with the Men’s Athletic Association, provides opportunities for recreation by sponsoring competition in touch football, basketball, volleyball, tennis, softball, bowling, and swimming.

The Women’s Recreational Association sponsors intercollegiate competitive sports for women, including field hockey, lacrosse, fencing, bowling, swimming, basketball, and softball. Intramural activities for women are organized on a voluntary basis.

Student Exchange Program. A program of international study and experience, financed principally by the student body, is organized and operated by the Student Exchange Committee of the Student Executive Board. Reciprocal exchange programs exist between the College and institutions in Scotland, Canada, Germany, and Denmark. A description of this program may be found in the General Information Handbook.

STUDENT GOVERNMENT

Associated Students of Trenton State College (ASTSC) is the complex of students and student organizations that functions under student government.

The Student Executive Board is the representative body of the ASTSC. Membership is determined on the basis of representation from each class with additional representatives from the Interfraternity Councils. The Board determines the expenditures of the Student Activity Fund, discusses and determines changes in the ASTSC policy, initiates projects, cooperates with the College administration and faculty in institutional problems and policy-making, and considers matters of concern to the student body.

The Student Activities Fund. All students are assessed a student activities fee based upon an annual budget submitted for approval by vote to the entire student body. These moneys go into the Student Activities Fund, which is administered by the Student Executive Board. Disbursements from the Fund fall into two general categories: All-College programs and activities, such as the performing artist series, and operating expenses for many of the campus student organizations. Every student is guaranteed the opportunity to participate in activities funded by student fees.

Student Cooperative Association. The College Store and other auxiliary enterprises are incorporated under the name of Student Cooperative Association, a non-profit association incorporated under the laws of the State of New Jersey. Students may also maintain personal savings accounts. Emergency short term loans are also available — maximum $50.00 — for 4 weeks.

Student Cooperative Association Board of Control is a student-faculty group appointed by the President of the College and the Student Executive Board for
the purpose of administering the affairs of the SCA. The board establishes policies and procedures for all auxiliary enterprises and student services that involve monetary profit, and supervises the distribution of profits to worthy projects and activities that contribute to the welfare of the College.

The College Store makes available books, equipment, sundries, and necessary items not otherwise obtainable on the campus.

The Activity Fund Office manages money received and expended by student organizations, and provides a personal check-cashing service (maximum $50.00) for students.

TRENTON STATE COLLEGE POLICY ON DISSENT AND CAMPUS DEMONSTRATIONS

(June 1969)

1. All members of the college community are encouraged to participate in directing the future of the college through involvement with or direct appeal to the standing committees of the College, the Student Executive Board, the Faculty Senate, the College administration, or ad hoc action groups growing out of the above organizations. All members of this college community have the right and are encouraged to register their dissent from any condition, issue, or proposed action by any orderly means. The College guarantees consideration of any issue, regardless of the circumstances which attend its introduction.

2. A demonstration of dissent that is converted into any interference with the freedom of any member of the academic community or its guests (for example, forceful disruption of classes, seizure of a college building, physical assault on any person, and, denying access to the college facility) will be considered disruptive and is in violation of this policy.

3. Any such incidents that may occur and any such problems that may develop will be dealt with internally as an extremely serious matter. These incidents will be dealt with in the following manner:
   a. The President or the appropriate administrative officer, who must identify himself, will ask for cessation of the disruption.
   b. Failure to comply with the request to cease the disruption will compound the offense and reduce the college's ability to resolve the problem internally. In the initial confrontation between the demonstrators and the President, or appropriate administrative officer, the latter should specify the time allowed for dispersal of the demonstrators and cessation of the disruption. More specifically, failure to comply could result in notice of suspension not to exceed five days during which time a review is to take place.

4. Continued refusal to cease disruption may require the President, or in his absence the appropriate administrative officer, to request—after conferring with representative faculty, students, and college officers, if circumstances allow—off-campus assistance and to subject those participating in the disruption to arrest.
Those persons involved in a disruptive demonstration who are not a member of the College community will be dealt with by off-campus authorities. The President, or the appropriate administrative officer, will request off-campus assistance after conferring with representative faculty, students, and college administrative officers, if circumstances allow.

5. When College regulations are violated, the College will attempt to resolve the matter internally through procedures already established by student-faculty staff committees to provide fully for due process. It should be stressed, however, that off-campus law enforcement officers have legal access to the campus at all times, and during incidents of violation of civil law may proceed on their own initiative to act without being requested to do so by the College. All persons who violate civil law, whether students or not, must expect to pay the penalties of civil law.

6. Trenton State College welcomes campus guests who wish to attend and participate in social and cultural activities sponsored by the students and faculty of the College. It is expected that such persons comply with college regulations. These regulations, which give priority to campus affiliated groups for the use of campus facilities establish the conditions for use of campus facilities by outside groups as well, and are available in the Calendar office, Hillwood Union Building.

*Prepared by Committee on Student Unrest: (Ronald Chapman, Bernice Grossman, Luke Harris, Mary Jane Samuels, Norris Thomas, Clayton Brower, Jere Paddack, Frank Larkin, David Smith, William DeMeritt, Casper Lonesome, Robert Stierhem, Roy Van Ness, James Forcina)*
# BOARD OF TRUSTEES

<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>FRED D. ROSI, Chairman</td>
<td>Princeton</td>
</tr>
<tr>
<td>MINOT C. MORGAN, Jr., Secretary</td>
<td>Princeton</td>
</tr>
<tr>
<td>JAMES M. HOWARD, Jr.</td>
<td>Blairstown</td>
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<tr>
<td>MAUREEN E. GATYAS</td>
<td>Perth Amboy</td>
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<td>ARDELIA STEWART</td>
<td>Moorestown</td>
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<td>LENORE VAUGHN-EAMES</td>
<td>Stockton</td>
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<td>STANLEY WEISS</td>
<td>South Orange</td>
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<tr>
<td>ROBERT F. WENTWORTH</td>
<td>Madison</td>
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<tr>
<td>LOWELL F. JOHNSON</td>
<td>North Plainfield</td>
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# ADMINISTRATIVE OFFICERS

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<tr>
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<tr>
<td>CLAYTON R. BROWER</td>
<td>President</td>
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<tr>
<td>JAMES J. FORCINA</td>
<td>Acting Vice President Academic Affairs</td>
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<tr>
<td>JACK E. LYONS</td>
<td>Acting Vice President, Administration and Finance</td>
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<tr>
<td>WADE C. CURRY</td>
<td>Acting Dean, Arts and Sciences</td>
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<tr>
<td>KENNETH C. RUNQUIST</td>
<td>Acting Dean, Professional Studies</td>
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<tr>
<td>JERE D. PADDACK</td>
<td>Dean, Student Personnel Services</td>
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<tr>
<td>PETER MILLS</td>
<td>Acting Director of Business Services</td>
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<tr>
<td>BERNARD A. REED</td>
<td>Director of Admissions</td>
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<tr>
<td>LAMOND H. SMITH</td>
<td>Director of Continuing Education</td>
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<tr>
<td>DOROTHY G. PETERSON</td>
<td>Acting Dean, Graduate Study</td>
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<tr>
<td>FELIX E. HIRSCH</td>
<td>Librarian</td>
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<tr>
<td>MERTON W. HUTTON</td>
<td>Registrar</td>
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<tr>
<td>TOD H. HERRING</td>
<td>Director of Long Range Planning &amp; Institutional Research</td>
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<tr>
<td>MICHAEL S. KLINE</td>
<td>Director, Student Teaching and Placement</td>
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<td>B. RANDOLPH LINTHURST</td>
<td>Director of Public Relations</td>
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<tr>
<td>CHARLES FRAZIER</td>
<td>Director, Community Affairs</td>
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<tr>
<td>HENRY H. MATELMSON</td>
<td>Director of Computer Services</td>
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<tr>
<td>JAMES M. ORR</td>
<td>Director of Academic Advisement and Evaluation</td>
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<tr>
<td>ROSARIO ALFIERI</td>
<td>Director of Development and Alumni Affairs</td>
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</tbody>
</table>
FACULTY AND STAFF

STANLEY A. AAGAARD, Assistant Professor of Chemistry, B.S. Bloomsburg State College; M.A. Trenton State College

ERIC T. ABTS, Assistant Professor of History, B.A. Conception Seminary; M.S. Illinois Institute of Technology

THOMAS H. ADAMS, Professor of Education, B.S. Trenton State College; M.Ed., Ed.D. Rutgers University

SEYMOUR ADLER, Assistant Professor, Chemistry, B.Ch.E. Cooper Union Institute, M.A., Ph.D. Columbia University

HENRY W. AHRENS, Professor of Art, B.F.A. Pratt Institute, M.A. Columbia University, Ed.D. New York University

JUNE ALBERT, Assistant Professor, Sociology, B.A. Rutgers University, M.A. Rutgers University

WILLIAM F. ALEXANDER, Associate Professor of Industrial Education and Technology, B.S. Gorham State College; M.Ed., Ed.D. Pennsylvania State University

MARY LOUISE ALKEN, Assistant Professor of Education, A.B. Newark State College, Ed.M., Ed.D Rutgers University

ROSS ALFIERI, Director of Development and Alumni Affairs, B.A. Paterson State College; M.A. New York University

WAYNE A. ALLEN, Assistant Professor of History, B.A. Lycoming College; M.A. University of Michigan

ROBERT J. ANDERSON, Assistant Professor of Sociology, A.B., Ed.M. Rutgers University

NORMAN L. ASPER, Associate Professor of Industrial Education and Technology, B.S. Ball State University; Ph.D. Ohio State University

STANLEY S. AUSTIN, Professor of Music, B.S., M.A. Columbia University

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OSCAR R.E. BARKER, Associate Professor of Mathematics, B.A. London University, M.A. Columbia University

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MICHAEL D. BARR, Associate Professor of Mathematics, A.B. Boston University; M.A. University of Michigan

CHARLOTTE M. BARTZIK, Assistant Professor of Nursing, B.S., M.Ed. Columbia University

SHIRLEY S. BATCHELOR, Assistant Professor of Music, B.S. Juilliard School of Music; M.A. Columbia University

ISAAC L. BATTIN, Professor of Mathematics, A.B., M.A. Swarthmore College; B.Mus. University of Pennsylvania; Ph.D. New York University

BERNARD A. BEARER, Assistant Professor of English, B.A. Rutgers University; M.A. University of Connecticut

HENRY F. BEECHHOLD, Professor of English, B.S., M.A. Oklahoma State University; Ph.D. Pennsylvania State University

DONALD BENEDETTI, Instructor of Music, B.S. Juilliard School of Music; M.A. Columbia University

ARTHUR W. BERGER, Associate Professor of Music, B.S. Institute of Musical Art of the Juilliard School of Music; M.S. University of Pennsylvania

WILLIAM BIRNES, Instructor of English, A.B., A.M. New York University
ED E. BISGROVE, Associate Professor of Music, B.S. Houghton College; M.S. University of Pennsylvania

ROBERT W. BITTNER, Assistant Professor of Industrial Education and Technology, B.A., M.A. Trenton State College

RICHARD T. BOEHME, Associate Director of Admissions, B.A. Trenton State College; Ed.M. Rutgers University

LEIGH BOERSTLING (Mrs. Peter), Assistant Professor, Library, Serials Librarian, A.B. Boston University; M.L.S. Simmons College

DAVID E. BOLIVER, Assistant Professor of Mathematics, B.A. Texas Technological College; M.A., Ed.D. Rutgers University

WANDA P. BRAITHWAITE, Assistant Professor of Psychology, B.S. University of Washington (in Doctoral program, bypassing Masters, University of Washington)

EDWARD BRAKE, Director of Financial Aids, B.S. Southwest Missouri State College, M.S. Southern Illinois University

ALICE L. BRANDINGER, Assistant Professor of Special Education, B.A. Hunter College; M.A. Trenton State College, Ph.D. Rutgers University

JAMES BRAZELL, Assistant Professor of English, B.A. Princeton University, M.A., Ph.D. University of Michigan

GERALDINE J. BRESLER, Assistant Professor, Library, Circulation Librarian, B.A. Wheaton College; M.S.L.S. Drexel Institute of Technology

ALFRED BRIDGES, Assistant Director of Admissions, B.A., Trenton State College, M.A. Rider College

EDWARD F. BRINK, Associate Professor of Health and Physical Education, B.A., M.A. Allegheny College

JOYCE H. BRODOWSKI, Associate Professor, Reader's Adviser in the Humanities, B.A., Douglass College; M.S. in L.S. Columbia University

CLAYTON R. BROWER, Professor of Education, President, B.A., M.A. Syracuse University; Ed.D., Columbia University

GEORGE C. BROWN, Jr., Instructor of Library Science, B.S. West Chester State College; M.S.L.S. Drexel Institute of Technology

JANE Z. BROWN (Mrs. Donald W.), Assistant Professor of English, A.B. Swarthmore College; M.A. Columbia University; Ph.D. University of Cincinnati

WILLIAM E. BROWN, Associate Professor of Industrial Education and Technology, B.S., M.S. Southern Illinois University; Ph.D. Ohio State University

MOSHE M. BUDMOR, Associate Professor of Music, B.S., M.A., Ed.D., Columbia University

JOSEPH J. BURCHER, Associate Professor of Education, B.S., Ed.M. Temple University

EILEEN BURKE, Professor of Education, B.S., Seton Hall; M.Ed. Ed.D. Rutgers University

ROBERT C. BURNS, Professor of Art, B.F.A. Yale University; B.A. Rollins College; M.A., Ed.D. Columbia University

PATRICIA S. BUTCHER (Mrs. John), Instructor, Library, Reader’s Adviser in Education and Psychology, B.A. Albertus Magnus College; M.L.S. Rutgers University

JEANNE E. CALO, Assistant Professor of Modern Languages, Licence en droit, Université d'Alger, M.A. University of Pennsylvania


ENID H. CAMPBELL (Mrs. Byron), Professor of Psychology, Chairman of the Psychology Department, A.B. Swarthmore College; M.A. Bryn Mawr College; Ph.D. Yale University
CHARLES C. CARMAN, Professor of Education, B.S., Ed.M., Ed.D., Rutgers University

CHAMP CARNEY, Professor of Geography, B.A. Southeastern State College; M.A. George Peabody College for Teachers; Ph.D. Indiana University

ELIZABETH M. CARPENTER, Associate Professor of Speech, Chairman of Speech Pathology and Audiology Department, BS. Curry College; M.A. University of Southern California

HELEN McCracken Carpenter, Professor of History, B.A. Ohio Wesleyan University, M.A., Ed.D. Columbia University

JOSEPH F. CARROLL, Professor of Education, Chairman, Educational Foundations Department, B.S., Ed.M., Ed.D. Temple University

BERNICE M. CASPER, Professor of Geography, Chairman of the Geography Department, B.S., M.A., Ed.D. University of Nebraska

CHANGHEE CHAE, Instructor of Economics, B.S. Wilkes College (In Doctorate Program, bypassing Masters, Columbia University)

ELINORE CHAFEY, Instructor of Education, B.S. Trenton State College, M.A. Columbia University

JOHN E. CHARLTON, Professor of Education, A.B. Pennsylvania State University; Ed.M., Ed.D. Temple University

TAO CHENG, Associate Professor of Political Science, LL.B. Peking University; M.A. Temple University, Ph.D. Columbia University

STEPHEN I. CHERASHORE, Assistant Registrar, B.A. Temple University, M.B.A. Drexel Institute of Technology

ARISTOMEN A. CHILAKOS, Assistant Professor of Health and Physical Education, B.A. Trenton State College; M.Ed. Temple University

ELRIC A. CICCHETTI, Instructor of Distributive Education, B.S. Rider College, M.Ed. Temple University

FRANK H. CLARK, Associate Professor of Speech, B.S. Rutgers University; M.A. Cornell University

SHARON L. CLARK, Assistant Professor of Health and Physical Education, B.S. University of Maine; M.Ed. Springfield College

ROY A. CloUSER, Assistant Professor of Philosophy, B.D. Reformed Episcopal Seminary; B.A. Gordon College; M.A. University of Pennsylvania

JOYCE COCHRANE, Instructor of Health and Physical Education, B.S. East Stroudsburg State College, M.A. Trenton State College

ALFRED COHEN, Professor of History, Chairman, History Department, A.B. Rutgers University; M.A. New York University; Ph.D. Indiana University

PAUL S. COHEN, Assistant Professor of Chemistry, B.A. Brooklyn College; M.S. University of Illinois

EDWARD J. CONJURA, Instructor of Mathematics, B.S. Bloomsburg State College; M.S. Notre Dame University

PHYLLIS COOPER, Assistant Professor of Health and Physical Education, B.S. University of Maryland, M.S. Temple University

EUGENE N. COPELAND, Instructor of Music, B.M. Philadelphia Music Academy; M.A. Trenton State College

MERLIN B. COSLICK, Instructor of Speech, B.S. Trenton State College; M.A. Columbia University

EDWARD J. COUGHLIN, Professor of Industrial Education and Technology, A.B., M.A. Montclair State College; Ed.D. Rutgers University

JOYCE COUTISS, Instructor of Health and Physical Education, B.S. Douglass College, M.A. Trenton State College
NORMAN E. CROMACK, Professor of Mathematics, B.A. Wilkes College; M.A. Bucknell University; Ed.D. Rutgers University

VICTOR L. CROWELL, Professor of Physics, B.S. Cornell University; M.A. Columbia University; Ed.D. Rutgers University

MARY CROYSON, Exchange Professor, B.A. University of Wales, Diploma in Educ., University of Wales

PHILLIP W. CUMMINGS, Assistant Professor of Philosophy, B.A. Bowdoin College; M.A. University of Pittsburgh

PAUL M. CURRY, Instructor of Health and Physical Education, B.S. Trenton State College; M.S. Indiana University

WADE C. CURRY, Professor of Speech, Acting Dean of Arts and Sciences, B.A., M.A. University of Pittsburgh, Ph.D. University of Illinois

JENNIE L. DAUBERT, Instructor of Business, B.A. Trenton State College, M.A. Columbia University

ALAN DAWLEY, Assistant Professor of History, B.A. Oberlin College, M.S. Harvard University, Ph.D. Harvard University

JOHN DEL MONTE, Assistant Professor, Child Study Center, B.S. University of Scranton

WILLIAM DemMERRIT, Assistant Professor of English, B.A., M.A., Ph.D. Rutgers University

RAYMOND J. DI FRANCESCO, Assistant Professor of Business, B.S. Rider College, C.P.A.

ANTHONY J. DIGIORGIO, Associate Professor of Student Personnel, B.A. Gannon College, M.S., Ph.D. Purdue University

LAHNA F. DISKIN, Assistant Professor of English, B.S. Trenton State College; M.A. Middlebury College

VINCENT W. DRESSER, Associate Professor of Industrial Education and Technology, B.S. Trenton State College, M.A. Montclair State College

ROBERT J. DUESTERHAUS, Assistant Professor of Student Personnel, Director of the College Union, B.A. Quincy College; Ed.M. Ohio University

PATRICIA R. DUFFY, (Mrs. Robert A.), Instructor of Business, B.S.S. Bryant College; M.A. Trenton State College

ROBERT S. DUNCAN, Instructor of Mathematics, S.B.E.E. Massachusetts Institute of Technology; M.S. Drexel Institute of Technology

LEON J. DURKIN, Professor of Education, B.A., M.A. Montclair State College; Ed.D. New York University

ALBERT F. EBLE, Professor of Biology, Chairman, Biology Department, B.A. Hofstra University; M.S. University of Miami, Ph.D. Rutgers University

RALPH D. EDELBACH, Assistant Professor of Industrial Education and Technology, B.A. Montclair State College; M.S. Stout State University

WALTER EHRENPREIS, Associate Professor of Mathematics, B.A. Central Connecticut State College; M.A. University of Connecticut

MICHAEL EKIZIAN, Assistant Professor of English, B.A. City College of New York; M.A. New York University

JOSEPH V. ELLIS, Assistant Professor of History, B.S. West Chester State College; M.A. Temple University

VIRGIL ENGELS, Assistant Professor of Health and Physical Education, B.S., M.S. University of Illinois

JOHN F. ERATH, Associate Professor of English, Coordinator of International Education, A.B. St. Peter's College; M.A., Ph.D. Rutgers University

JOHN T. ERVIN, Instructor of Music, B.S. Lebanon Valley College; M.M. Manhattan School of Music
ANTHONY EVANGELISTO, Assistant Professor of Education, B.A. LaSalle College; M.Ed. Temple University

NELSON H. EVANS, Instructor, Library, Government Documents Librarian, B.A. Wilmington College; M.S., L.S. Drexel Institute of Technology

KENNETH EVERARD, Professor of Business Education, B.S., M.S. State University of New York at Albany; Ed.D. University of Indiana

DARYL FAIR, Associate Professor of Political Science, Chairman, Political Science Department, B.S. Millersville State College, M.A., Ph.D. University of Pennsylvania

RICHARD L. FARBER, Instructor of Education, B.A. Penn State University; Ed.M. Temple University

WILLIAM FASSBENDER, Assistant Professor of Health and Physical Education, B.S. Gettysburg College; M.Ed. Temple University

THOMAS A. FAUGHNAN, Associate Professor of History, A.A. Union Junior College; B.S., M.A. Rutgers University

JAMES F. FEEHAN, Assistant Professor of Special Education, B.S., M.A. Trenton State College

GLENN A. FELIX, Associate Professor of Student Personnel, Director of Student Activities, B.S. Juniata College; M.A. Pennsylvania State University

DAVID J. FERBER, Assistant Professor of Special Education, A.B. University of Pittsburgh; M.A. Seton Hall University

IDA FERYSZKA (Mrs. Max), Assistant Professor, Readers' Advisor in Science and Technology, M.S. Institute of Technology, Munich, M.L.S. Rutgers University

JAMES FINKENAUER, Professor and Chairman, Criminal Justice Department, B.S. Gettysburg College, M.A., Ph.D. New York University

JUDSON J. FINK, Jr., Associate Professor of Physics, A.B., A.M. Montclair State College

SHIRLEY FISHER, Instructor of Health and Physical Education, B.S., M.Ed. East Stroudsburg State College

JAMES J. FORCINA, Professor of Education, Acting Vice President for Academic Affairs, B.S. Trenton State College; Ed.M. Rutgers University; Ed.D. Columbia University

HUGH D. FORD, Professor of English, B.A. Dickinson College; M.A. Stanford University; Ph.D. University of Pennsylvania

LOUISE G. FRADKIN (Mrs. Leon), Assistant Professor, Library, Reference Librarian, B.A. University of Pennsylvania; M.S.L.S. Drexel Institute of Technology

EVELYN B. FRANZ, (Mrs. Henry), Professor of Education, Chairman, Department of Elementary and Early Childhood Education, B.S., M.A. Columbia University; Ed.D. Rutgers University

CHARLES FRAZIER, Director of Community Affairs, B.S. Cheyney State College; M.S. University of Pennsylvania

NEIL A. GASTON, Associate Professor of Business Education, B.A., M.A. Trenton State College, Ed.D. New York University

FRANZ GEIERHAAS, Associate Professor of Psychology, M.A. Michigan State University

RICHARD GELLMAN, Associate Professor of Education, B.A. Ursinus College; M.Ed., Ed.D. Temple University

ROBERT E. GERKE, Assistant Professor of Education, Assistant Director of Student Teaching and Placement, B.S. Trenton State College; M.S. University of Pennsylvania
MARY M. GERMAIN, Assistant Professor of Nursing, B.S., M.Ed. Columbia University
PAUL B. GILLEN, Professor of Sociology, Chairman, Department of Anthropology and Sociology, B.S., M.Ed. Johns Hopkins University; Ph.D. Columbia University
RONALD F. GLEESON, Assistant Professor of Physics, B.S. St. Joseph's College; M.S., Ph.D. University of Pennsylvania
CHARLES H. GOLDBERG, Associate Professor of Mathematics, B.S. Rensselaer Polytechnic Institute; M.A., Ph.D. Princeton University
HOWARD GOLDSTEIN, Associate Professor of Art, B.S. State University of New York at Buffalo; M.A. New York University
WILLIAM GOLDSTEIN, Professor of Mathematics, B.S. Trenton State College, M.A. University of Pennsylvania; Ed.D. Rutgers University
HERBERT B. GOODEN, Professor of Education, B.A., M.A. Colorado State College at Greeley; Ed.D. New York University
JEROME GOODKIN, Professor of Chemistry, B.A. New York University; M.S. New York University; Ph.D. Rensselaer Polytechnic Institute
JOSEPH P. GORCZYNSKI, Assistant Professor of Psychology, B.A., Ed.M. Rutgers University
KARL GOTTESSMAN, Assistant Director of Continuing Education, B.A. Harpur College; M.A. University of Pennsylvania
ALLAN S. GOTTHELF, Assistant Professor of Philosophy, B.S. Brooklyn College; M.A. Penn State University
NICHOLAS GREENBAUN, Instructor of Mathematics, B.A. Wabash College; M.S. New York University
DANIEL W. GREENE, Assistant Professor of English, B.A., M.A. University of Pennsylvania
S. MARY T. GRUBER, Associate Professor of Nursing, B.S. Catholic University; M.S. University of Pennsylvania
SIEGFRIED HAENISCH, Associate Professor of Mathematics, B.S., M.A. Trenton State College; Ed.D. Rutgers University
ELIZABETH C. HAGER, Assistant Professor of Biology, B.A. Montclair State College; M.S. Rutgers University
FRED HAHN, Professor of History, M.A. Columbia University; Doctor of Law and Political Science, University of Prague
CYNTHIA C. HAMM, Associate Professor, Library, Assistant Librarian for Readers' Services, B.A. College of William and Mary; M.A. University of Pennsylvania; M.L.S. Rutgers University
CECILE C. HANLEY, Assistant Professor of English, B.A., Columbia University; M.A. Hunter College
FRANCIS H. HANNOLD, Instructor of English, B.A., M.A. University of Florida
ANTHONY W. HANTJIS, Professor of Business Education, Chairman, Department of Business, B.S. Bloomsburg State College; M.Ed. Pennsylvania State University; Ed.D. Temple University
BARBARA J. HARNED, Assistant Professor of Education, B.S. Newark State College; Ed.M., Ed.D. Rutgers University
RALPH S. HARRIS, Assistant to Dean of Students, Student Personnel, B.A. Trenton State College
ROBERT HARRIS, Professor of Speech, B.A., M.A. Brooklyn College; Ph.D. University of Pennsylvania
RUTH ANN HARRISON, Professor of Music, B.S., M.S. Indiana State Teachers College, Terre Haute; Ed.D. University of Illinois
LEE V. HARROD, Assistant Professor of English, B.A. Hastings College; M.A., Ph.D. Pennsylvania State University

FREDERIC R. HARTZ, Instructor of Library Science, B.S. Kutztown State College; M.S.-L.S. Syracuse University

WILLIAM H. HAUSDOERFFER, Professor of Mathematics, Chairman, Department of Mathematics, B.S. Trenton State College; M.A. Columbia University; Ed.D. Rutgers University

NORMAN A. HEAP, Associate Professor of Speech, Chairman, Department of Speech and Theatre, B.S., M.A., Ph.D. Louisiana State University

OTTO A. HECK, Assistant Professor of Biology, B.S. Fordham University; M.S. University of Oregon

OTTO H. HELBIG, Professor of Music, P.D., Yale University; B.S., M.A., Ed.D., Columbia University

EDWARD R. HELMS, Instructor of Music, B.S. Fredonia State College; M.A. Pennsylvania State University

HILDA G. de HERNANDEZ, Assistant Professor of Modern Languages, B.S. and B.L. Instituto de la Habana; Ph.D. Universidad de la Habana

SHIRLEY U. HERRICK (Mrs. Charles A.), Instructor of Instructional Media, B.A. De Pauw University; Ed.M. Temple University

DONN R. HERRING, Assistant Professor of Education, B.M. University of Kentucky; M.Ed. Trinity University

TOD H. HERRING, Professor of Industrial Education and Technology, Director of Long Range Planning and Institutional Research, B.S. Northern Illinois University; M.A. Ohio State University; Ed.D. University of Illinois

JOSEPH N. HERZSTEIN, Assistant Professor of Health and Physical Education, Assistant Director of Athletics, B.S. Trenton State College; M.A. University of Maryland

HARRY L. HESS, Assistant Professor of Industrial Education and Technology, B.S. California State College; M.S., Ed.D. Texas A & M University

HERBERT H. HESS, Assistant Professor of Education, Academic Counselor, Graduate Study, B.A. Trenton State College; M.A. Montclair State College

DONALD C. HESTER, Associate Professor of Political Science, B.A. Bluffton College; M.A. Ohio State University; Ph.D. University of Maryland

RICHARD C. HEWITT, Assistant Professor of Geography, B.S. Trenton State College; M.A. Rutgers University

PAUL S. HIACK, Professor of Physics, B.S. Grove City College; M.Ed. University of Pittsburgh; Ed.D. Columbia University

CATHERINE S. HILL (Mrs. David), Assistant Professor of Health and Physical Education, B.A. Syracuse University; M.A. University of Minnesota

HARRIET HINCK, Assistant Professor of Economics, B.S. Long Island University; M.A. University of Alabama

INEZ L. HINDS (Mrs. Albert), Instructor of Education, B.S. Morgan State College; M.A. Columbia University

ELISABETH F. HIRSCH (Mrs. Felix), Professor of Philosophy, Chairman of the Philosophy and Religion Department, Ph.D. University of Marburg

FELIX E. HIRSCH, Professor of History, Librarian, B.S., L.S. Columbia University, Ph.D. University of Heidelberg

HAROLD R. HOGSTROM, Associate Professor of Speech, B.A., M.A. Queens College; Ph.D. Syracuse University

ARTHUR V. HOHMUTH, Assistant Professor of Psychology, B.A. St. Francis College; M.A., Ph.D. University of Delaware
ALFRED P. HOLMAN, Professor of English, B.A. Centre College; M.A., Ed.D. University of Cincinnati

ANDREW JOHN HONYAK, Instructor of Speech, B.A. Trenton State College; M.A. Columbia University

MARIAN H. HOSFORD, Professor of Nursing, Chairman, Department of Nursing, B.S. St. John’s University; M.A. New York University; Ed.D. Columbia University

LAWRENCE N. HOUSTON, Associate Professor of Psychology, B.S., M.S. Howard University; Ed. D. Temple University

STEPHEN P. HRTZ. Associate Professor of Special Education, Acting Chairman of Special Education Department, B.S. Temple University, M.A. New York University

HENRIETTA HUBBARD (Mrs. Robert), Assistant Professor of Education, B.S. Gorham State Teachers College; M.Ed. Temple University

MERTON W. HUTTON, Assistant Professor of English, Registrar, A.B. Washington and Jefferson College; M.A. Rutgers University

MICHAEL A. IANNONE, Assistant Professor of Mathematics, B.A., M.A. Trenton State College

DOROTHY MAY INCALLS, Associate Professor of Education, B.S. Trenton State College; M.A., Ed. D. Columbia University

ARTHUR IRIARTE, Instructor of Special Education, B.S. St. John’s University; M.S. Adelphi University

JACK D. IRWIN, Associate Professor of Mathematics, B.S. State Teachers College, Pittsburgh, Kansas; M.Ed. Wittenberg College; M.S. Michigan State University

ANTHONY C. ISCH, Associate Professor of Music, B.A. Hendrix College; M.S. Columbia University

HOPE A. JACKMAN, Associate Professor of Education, Coordinator of Housing and Food Services, B.A., M.A. University of Maine

CAROLE JANE JACKSON, Instructor of History, B.A. Upsala College, M.A. Howard University

DERWIN J. JEFFRIES, Associate Professor of Education, B.A., M.A. Montana State University

PAULINE M. JENSON, Professor of Special Education, B.S. Trenton State College, M.A., Ph.D. Columbia University

CONRAD J. JOHNSON, Associate Professor of Industrial Education and Technology, B.S. Trenton State College; Ed.M. Rutgers University

ILSE JOHNSON (Mrs. Philip), Assistant Professor of Art, B.F.A. Alfred University; M.A. New York State College of Ceramics

GWENDOLYN JONES (Mrs. David), Instructor of Education, B.A., M.A. Trenton State College

SYDNEY JORDAN, Professor of Speech, B.A., M.A. Temple University; M.S. Syracuse University; Ph.D. Ohio State University

VIRGINIA ANN KANE (Mrs. James), Assistant Professor of Speech, B.S. State University of New York College, Geneseo; M.A. Pennsylvania State University

KENNETH KAPLOWITZ, Assistant Professor of Instructional Media and Technology, B.A. Montclair State College, M.A. New York University

JOHN P. KARRAS, Assistant Professor of History, B.A. Rutgers University (In doctorate program bypassing Masters at Rutgers University)

JEROME KATZ, Assistant Professor of Economics, B.A. Yeshiva College (Currently in Ph.D. Program at City University of New York)
ELHANNAN L. KELLER, Assistant Professor of Chemistry, B.S. Bloomsburg State College; M.A. Trenton State College, on leave

NORVAL C. KERN, Professor of Art, Chairman of the Art Department, B.F.A. Massachusetts School of Art; M.A., Ed.D. New York University

FREDERICK S. KILEY, Associate Professor of English, B.S. Rhode Island State College, M.A. University of Connecticut

CARMELA C. KINGSTON (Mrs. Albert), Associate Professor of Business Education, B.S., M.A. Trenton State College, Ed.D. Temple University

MICHAEL S. KLINE, Professor of Education, Director of Student Teaching and Placement, B.S. Trenton State College; M.A. Columbia University; Ed.D. Rutgers University

MALCOLM S. KLORES, Assistant Professor of Psychology, B.A. Cornell University, Ph.D. University of Michigan

JOHN C. KOHL, Jr., Assistant Professor of Biology, A.B. St. John's College, M.A., Ph.D. University of Michigan

N. FRANKLIN KOLP, Associate Professor of Physics, B.S. Ursinus College; M.A. Columbia University

ROBERT K. KORN, Instructor of Mathematics, B.S.E. Princeton University; M.S. University of Wisconsin

GEORGE H. KRABLIN, Professor of Health and Physical Education, Associate Dean of Graduate Study, B.S., M.S., Ed.D. Syracuse University

CARL A. KRE'rATUS, Associate Professor of Education, Assistant Director of Continuing Education Division, B.S., M.S. Temple University

J. RUSSELL KRUPPA, Professor of Industrial Education and Technology, B.S. California State; M.Ed., Ed.D. Pennsylvania State University

RAYMOND M. LAWS, Instructor of Industrial Education and Technology, B.S. Appalachian State University; M.A. Ball State University

WILLIAM LAWTON, Instructor of Student Personnel, B.A. Quincy College, M.S., Indiana University

CHRISTINE D. LEAR, Assistant Professor of Health and Physical Education, R.N. McKinley Memorial Hospital, Trenton; B.S. University of Pennsylvania; M.P.H. Harvard University

MARTIN E. LE BEAU, Instructor of Music, B.M.Ed. Northwestern University; Ed.M. University of Virginia

DAVID W. LECHER, Assistant Professor of Physics, B.S. Rutgers University; M.S. University of Nebraska; Ph.D. Cornell University

MARK A. LEHMAN, Assistant Professor of Art, B.F.A. Philadelphia Museum of Art; M.F.A. Temple University

SEYMOUR LEMESHOW, Professor of Special Education, B.A. Western Maryland College; M.A. Columbia University; Ed.D. New York University

MILTON I. LEVIN, Professor of English, B.S., M.S. University of Wisconsin; Ph.D. University of Michigan

LENORE M. LEVINE (Mrs. Emanuel), Instructor of English, B.A. Trenton State College; M.A. Rutgers University

MARVIN LICHTENBERG, Professor of Sociology, B.S., M.A., Ed.D. New York University

ALEXANDER S. LIDDLE, Jr., Professor of English, Chairman, Department of English, B.S. Lehigh University; M.A., Ph.D. Rutgers University

DAVID A. LIDE, Professor of Psychology, B.S. University of South Carolina; M.A., Ed.D. Columbia University

B. RANDOLPH LINTHURST, Director of Public Relations, B.S. University of Bridgeport
GARY LIPTON, Assistant Professor of Biology, B.S. City College of New York; M.S., Ph.D. Rutgers University

JANE LITHGOW, Assistant Professor of Nursing, B.S. University of Iowa, M.N. University of Washington

RUTHERFORD E. LOCKETTE, Professor of Industrial Education and Technology, B.S. Georgia State College; M.A. New York University; Ed.D. University of Illinois, on leave

CASPER B. LONESOME, Assistant Professor, Director of C.H.A.N.C.E., B.S. Cheyney State College; M.A. Trenton State College

E. DONALD LONGENECKER, Professor of Special Education, B.A. Stanford University; M.A., Ph.D. University of Texas

ESTHER C. LOPEZ (Mrs. John), Associate Professor and Chairman, Department of Modern Languages, A.B. Atlanta University; A.M. University of Chicago; Ph.D. Columbia University

THOMAS D. LUCAS, Assistant Professor of Music, B.M., M.M. Boston University

ALBERT LUDECKE, Jr., Assistant Professor of Music, B.S., M.S. Julliard School of Music

ALAN LUTZ, Associate Professor of Chemistry, B.S. College of the City of New York; M.S. New York University

JACK E. LYONS, Vice President for Administration and Finance, A.B. University of Southern California, L.A.

ROBERT M. MACLAURY, Associate Professor of History, B.A. Tusculum College; M.A. Montclair State College

JAMES MAHONEY, Assistant Professor, Library, Reader's Adviser in Social Science and History, M.A. Columbia; M.L.S. Pratt Institute

PHILLIP T. MALLOY, Academic Adviser, Continuing Education, B.A., M.A. Trenton State College

DORIS MANN, Associate Professor of Nursing, B.A. George Peabody College, M.S. Case Western Reserve

GERALD L. MARCHILDON, Assistant Professor of Student Personnel, B.A., M.S. Southern Illinois University

LAWRENCE J. MARCUS, Instructor of Education, B.A. Newark State College, M.A. Columbia University

EDWIN L. MARTIN, Distinguished Service Professor, B.A. Southwest Missouri State College, M.A., Ph.D. Yale University, on leave

HENRY H. MATELSON, Assistant Professor of Education, Director of Computer Services, B.A., M.A. Montclair State College

ALICE MATHEISEN, Assistant Professor, Library, Catalog Librarian, B.A. Muhlenberg College; M.L.S. Rutgers University

RICHARD P. MATTHEWS, Assistant Professor, Library, Special Collections Librarian, B.A. University of Chicago; M.A. Yale University; B.S.L.S. University of North Carolina; M.S.L.S. Columbia University

CHARLES J. McCONNELL, Instructor of Education, Assistant Director of Evaluation and Advisement, B.A. Iona College; M.A. New York University

RICHARD B. MCCORKLE, Instructor of Health and Physical Education, B.S. Slippery Rock State College; M.S. Springfield College

JACK W. McCULLOUGH, Instructor of Speech, B.A. Thiel College; M.A. University of Tennessee

DAVID B. McGRAIL, Assistant Professor of English, B.A. Gettysburg College; M.A. Pennsylvania State University
THOMAS McGRATH, Instructor of Speech and Theatre, B.A. Carthage College, M.A. Northern Illinois University

JOHN B. McLROY, Jr., Associate Professor of Mathematics, B.S., M.Ed. Rutgers University, M.A. Columbia University

PATRICK K. McINERNEY, Assistant Professor of Nursing, B.S., M.S. University of Pennsylvania

ROGER W. MCKINNEY, Assistant Professor of Music, B.S. State University College at Potsdam; B.S., M.S. Juilliard School of Music

JANE ANN McLAUGHLIN, Assistant Professor of Mathematics, B.A. Immaculata College; M.Ed. Pennsylvania State University; M.S. Purdue University

MARIAN B. McLEOD (Mrs. Alan), Assistant Professor of Speech, B.A. Westminster College; M.A. Pennsylvania State University

HELENE W. McRAE (Mrs. Lemuel), Assistant Professor of Special Education, B.S. Trenton State College; M.A. Columbia University

WILLIAM J. MEDVE, Associate Professor of Health and Physical Education, B.S., M.Ed. Temple University, Ph.D., Michigan State

ROBERT I. MEHLMAN, Associate Professor of English, B.A. Brooklyn College; M.A. Rutgers University

ALBERT G. MELVIN, Assistant Professor of Geography, B.S. Jersey City State College; M.A. Columbia University

SALVATORE M. MESSINA, Associate Professor of Education, B.A., M.A. University of Delaware; Ph.D. University of Pennsylvania

CAROLYN M. METZ (Mrs. Thomas), Assistant Professor of Sociology, A.B. Syracuse University (In doctorate program bypassing Masters)


DORIS F. MEYER (Mrs. Mervin), Instructor of Health and Physical Education, B.S., M.A. New York University

LEBERN N. MILLER, Associate Professor of Education, B.S., M.S. Southern Illinois University; Ed.D. University of Texas

MARTHA MONTGOMERY, Assistant Professor of Psychology, B.A. Smith College, M.A. New York University

HAROLD MOORE, Associate Professor of Special Education, B.S., A.M. Illinois College

SHELDON L. MOORE, Assistant Professor of Education, B.S. Trenton State College; Ed.M. Rutgers University, Ed.D. Lehigh University

PATRICIA C. MORRIS (Mrs. John), Professor of Health and Physical Education, B.S., M.A. University of Minnesota; Ed.D. Temple University

EDWIN M. MOSER, Assistant Professor of History, B.A., M.A. Brooklyn College

HERBERT A. MOSES, Professor of Physics, B.S. M.S. Michigan State University, Ph.D. University of Connecticut

THOMAS J. MURRAY, Assistant Professor of English, A.B. St. Joseph's College; M.A. Notre Dame University

GORDON MYERS, Associate Professor of Music, B.M. Cornell College; M.A., Ed.D. Columbia University

ROBERT MYERS, Instructor of English, B.A. LaSalle College; M.A. State University of Iowa

THEODORE NAFFZIGER, Academic Counselor, Division of Continuing Education, B.S. Carroll College, B.D. Princeton Theological Seminary

HOWARD NECHAMKIN, Professor of Chemistry, Chairman, Department of Chemistry, B.A. Brooklyn College; M.S. Polytechnic Institute of Brooklyn; Ed.D. New York University
NORMAN D. NEFF, Instructor of Mathematics, B.S. Massachusetts Institute of Technology, M.S. Stanford University

WILLIAM NEIL, Assistant Director of Continuing Education, B.S. Drexel Institute of Technology

ROSEMARY NEMEC, Assistant Professor of Education, A.B. West Liberty State Teachers College; A.M. Columbia University

GERALD P. NICHOLLS, Instructor of Physics, B.A., M.A. Trenton State College

JAMES J. NICHOLS, Instructor of Industrial Education and Technology, B.A., M.A. Montclair State College

RONALD A. NIEDERHUBER, Assistant Professor of Special Education, B.S. College of Steubenville; M.A. West Virginia University

BARRY H. NOVICK, Instructor of English, B.A. Hunter College; M.A. Indiana University

WARREN C. NUTT, Associate Professor and Chairman of Instructional Media, B.S. Glassboro State College; M.S. Rutgers University

GARY OAKLEY, Assistant Professor of Industrial Education and Technology, B.S., M.S. Murray State University, Ph.D. Southern Illinois University

AUDREY O'BRIEN, (Mrs. Harold J.) Professor of Speech, B.A. Hunter College; M.S. Fordham University; Ph.D. Columbia University

THOMAS W. O'BRIEN, Instructor of Industrial Education and Technology, B.S. Oswego State College; M.A. Trenton State College

DAVID H. ODEN, Assistant Professor of History, B.A. Queens College; M.S. Yeshiva University; M.A. University of Pennsylvania, Ph.D. University of Pennsylvania

PHILLIP A. OLLIO, Associate Professor of Education, B.S. Trenton State College; Ed.M. Rutgers University

SYLVIA T. O'NEILL, (Mrs. Gerard K.) Professor of Psychology, B.A. Swarthmore College; M.S., Ph.D. Cornell University

JAMES M. ORR, Director of Academic Advisement and Evaluation, Associate Professor of Student Personnel, B.A. Muskingum College; M.Ed. University of Pittsburgh; M.A. Yale University

FREDDIE A. OSHEL, Assistant Professor of Health and Physical Education, B.S., M.S. Central Missouri State College

CHARLES B. PACKARD, Associate Professor, Associate Librarian, B.A. Montclair State College; M.S. in L.S. Drexel Institute of Technology; Ed.M. Rutgers University

JERE D. PADDACK, Dean of Student Personnel Services, B.A., M.A., Ph.D. University of North Dakota

GALE M. PARISI, Instructor of Student Personnel, A.B. West Virginia University; Ed.M. Ohio University

GEORGE J. PAWLIKOWSKI, Assistant Professor of Mathematics, A.B. Allegheny College; M.A. Boston College

MARILYN PAWLOWSKI, Instructor of Art, B.S. Moore College of Art; M.F.A. Rochester Institute of Technology

DORIS C. PERRY, Professor of Psychology, Coordinator, Individual Services, Student Personnel, B.S. Florida State University; M.Ed., Ed.S., Ed.D., University of Florida

DOROTHY G. PETERSEN, (Mrs. Bertram), Professor of Education, Acting Dean of Graduate Study, B.S. Rutgers University; M.A. New York University; Ed.D. Rutgers University

GEORGIANA T. PETERSON (Mrs. Robert G.), Instructor of Music, B.M., M.M.E. American Conservatory of Music
RAYMOND PFEIFFER, Assistant Professor of Physics, B.S. University of Michigan; M.S. Trenton State College

FRED T. PREGGER, Professor and Chairman, Department of Physics, B.A.M. Montclair State College; Ed.D. Columbia University

ROBERT V. PRICE, Professor of Mathematics, B.A. Missouri Valley College; M.A., Ed.D. Columbia University

CARLO RACAMATO, Associate Professor of Student Personnel, B.A., M.S. University of Bridgeport, Ed.D. University of Maryland

ROGER L. RADA, Assistant Professor of Health and Physical Education, B.A. DePauw University; M.Ed. Springfield College

ROBERT RAMOS, Assistant Professor of Psychology, B.S. Fordham University; M.A. Bowling Green University; Ph.D. University of Tennessee

BERNARD A. REED, Associate Professor of Education, Director of Admissions, B.S. Trenton State College; M.A., Ed.D. New York University

CHARLES H. RICHTER, Instructor of Education, B.A. Montclair State College; M.Ed. Rutgers University

HOWARD L. RILEY, Assistant Professor of Special Education, B.A. University of Rochester; M.A. University of Wisconsin; Ph.D. Columbia University

ROBERT J. RITTENHOUSE, Professor of Music, Chairman, Department of Music, B.M. Wittenberg University; M.M. Northwestern University; Ph.D. University of Iowa

JAMES B. ROBINSON, Assistant Professor of Business, A.B. Colgate University; M.B.A. Harvard University

EDWARD G. ROCKEL, Associate Professor of Biology, B.A. Trenton State College; M.S., Ph.D. Rutgers University

DAVID A. ROGOSKY, Instructor of Instructional Media, B.S. Slippery Rock State College; M.Ed. Temple University

FRANCIS A. ROMANO, Assistant Professor of Instructional Media, B.S. West Chester State College; M.S. Indiana University

DAVID A. ROSE, Instructor of Biology, B.A. Rutgers University (in doctoral program, bypassing masters, Rutgers University)

MILTON A. ROTHMAN, Professor of Physics, B.S. Oregon State College; M.S., Ph.D. University of Pennsylvania

DOROTHY RUBIN (Mrs. Arthur), Associate Professor of Education, B.A., M.Ed. Rutgers University; Ph.D. Johns Hopkins University

STANFORD D. RUGGLES, Associate Professor of Industrial Education and Technology, B.A. Findlay College; M.A., Ph.D. Ohio State University

KENNETH C. RUNQUIST, Professor of Health and Physical Education, Acting Dean of Professional Studies, B.S., M.Ed. Springfield College; Ed.D. Columbia University

ERNEST E. RYDELL, Jr., Assistant to the President, B.A. Trenton State College, Ed.M. Rutgers University; Ed.D. Indiana University

ARNO M. SAFRAN, Assistant Professor of Music, B.M., M.M. Hartt College of Music

ROBERT E. SALOIS, Associate Professor of Health and Physical Education, B.A. University of New Hampshire; M.S. Indiana University

GEORGE H. SAXTON, Professor of Psychology, B.A., M.A., Ph.D. Temple University

WALTER SCHEFFLER, Visiting Professor from University of Frankfurt

MELVIN R. SCHMID, Associate Professor of Health and Physical Education, B.S., M.S. Springfield College

JAMES T. SCHREIBER, Instructor of Physics, B.S. St. Joseph's College; M.S. Temple University
NADINE SCHWARTZ, (Mrs. Robert), Associate Professor of Education, B.S. State College at Boston; M.A. University of Minnesota, Ed.D. Rutgers University
SEYMOUR SCHWARTZ, Assistant Professor of Speech, B.A. Brooklyn College; M.A. Columbia University
ANTHONY E. SCOTT, Academic Counselor, Continuing Education, B.A. Trenton State College
JOHN W. SHEA, Assistant Professor of Education, B.S. Ed.M. Temple University
MORTON SHENKER, Assistant Professor of Business, Coordinator of Distributive Education, B.S., M.S. Temple University
RICHARD C. SHEPHERD, Assistant Professor of Education, B.A. Rutgers University; Ed.M. Temple University
VICTOR L. SHERREER, Assistant Professor of Business Education, B.S., M.A. Trenton State College
WEI-TUN SHIH, Associate Professor of Industrial Education and Technology, Ed. B. Taiwan Normal University; M.A. State College of Iowa; Ed.D. Texas A & M
ROSALIND SHOR, Assistant Professor of Library Science, B.A. Rollins College; M.A. Columbia University; M.L.S. George Peabody College
NANCY J. SHRIVER, Assistant Professor of Education, Academic Counselor, Continuing Education, B.S. California State College; M.Ed. Kent State University
JAMES F. SILVER, Associate Professor of Education, B.A., M.A. Montclair State College; M.A. Boston University
ARTHUR N. SMITH, Associate Professor of Music, B.A. Fresno State College; M.A. Columbia University
DAVID F. SMITH, Associate Professor of Industrial Education and Technology, B.S. State University College at Oswego; M.A. Syracuse University
DAVID W. SMITH, Assistant Professor of Student Personnel, Assistant Coordinator of Student Personnel Programs. B.A. American International College; M.S. Southern Illinois University, on leave.
EILEEN P. SMITH, Assistant Professor of Chemistry, A.S. Trenton Junior College; B.S. University of Pennsylvania; Ph.D. University of Pennsylvania
JOE SMITH, Instructor of Education, B.A. Rutgers University, M.A. Glassboro State College
LAMOND H. SMITH, Director of Continuing Education, B.S. Trenton State College, Ed.M. Temple University
MARSHALL P. SMITH, Professor of Psychology, B.A. Harvard University; M.A., Ph.D. Columbia University
ROBERT C. SMITH, Assistant Professor of Philosophy, A.B. Union College; S.T.M. S.T.D. Temple University
THOMAS SPENCER, Assistant Professor of Mathematics, B.S. Newark College of Engineering; M.S. Stevens Institute of Technology
MARTIN L. STAMM, Professor of Education, B.S., M.S., Ph.D. Purdue University
AURA E. STAR (Mrs. Harry), Assistant Professor of Biology, B.A. Hunter College; M.A. Mount Holyoke College; Ph.D. Rutgers University
B. BYRON STEELE, Assistant Professor of Music, B.S. University of Chattanooga; M.A. Columbia University
ARTHUR M. STEINMAN, Associate Professor, Computer Center, B.A. Brooklyn College; M.A. City College of New York
ROBERT J. STIERHEM, Assistant Professor of Psychology, A.B. Rutgers College of South Jersey; M.A. Princeton University
ELIZABETH D. STRASSER (Mrs. Richard C.), Instructor of Geography, B.S., M.S. University of Illinois

CLARA STRATEMEYER, Professor of Education, B.S., M.S., Ph.D. Columbia University

ELIZABETH K. STROUSE (Mrs. Francis), Instructor of Education, B.S. Paterson State College, M.A. Trenton State College

MARIANNA SULLIVAN, Assistant Professor of Political Science, B.A. Rosemont College, M.A. University of Virginia

LESTER TAYLOR, Director of Facilities, B.S. United States Military Academy, West Point

LEONARD J. THARNEY, Assistant Professor of Education, B.S. Trenton State College; M.Ed. Rutgers University

JONATHAN THOMAS, Professor of English, A.B. Colgate University; A.M. Columbia University; Ph.D. Harvard University

WILLIAM R. THOMAS, Assistant Director of Instructional Media, B.S. Trenton State College; M.A. Syracuse University

KAREN H. THORSEN, Instructor of Art, B.S. Pratt Institute; M.A. New York University

ROBERT G. THROWER, Professor of Industrial Education and Technology, Chairman, Department of Industrial Education and Technology, B.S., M.I.A. North Carolina State College; Ph.D. Ohio State University

ARTHUR S. TIFFANY, Associate Professor of English, B.A. Bates College; M.A. Harvard University

FRANCES L. TIFFANY (Mrs. Arthur S.), Professor of Psychology, B.S. Boston University, Ed.M., Ed.D. Rutgers University

KENNETH G. TILLMAN, Professor of Health and Physical Education, Chairman of Health and Physical Education Department, A.B. Augusta College; M.S. University of Illinois; Ph.D. University of New Mexico

HERBERT R. TREUTING, Jr., Associate Professor of Biology, B.S., M.S. Rutgers University

JOHN E. TROWBRIDGE, Associate Professor of Education, B.S. State Teachers College, Mansfield, Pennsylvania; Ed.M., Ed.D. Rutgers University

MARGARET M. TURITZIN (Mrs. Nicholas), Instructor of Education, B.E. University of Vermont; M.A. Columbia University

JESSIE R. TURK, Professor of Geography, B.A. Montclair State College; M.A. Oberlin College; Ed.D. Columbia University

DAVID A. UBER, Professor of Music, B.A. Carthage College; M.A., Ed.D. Columbia University

FRANK M. UPDIKE, Instructor of Education, B.A., M.Ed. Rutgers University

KENNETH R. VAN DEMARK, Instructor of Health and Physical Education, B.S. Lock Haven State College; Ed.M. University of Pittsburgh

ROY W. VAN NESS, Associate Professor of Health and Physical Education, Director of Athletics, B.S. Trenton State College; M.A. Columbia University

JANET R. VEACH, Assistant Director of Financial Aids, B.S., M.S. Southern Illinois University

JOHN J. VELDOF, Assistant Professor of Geography, B.S. Trenton State College; M.A. Rutgers University

JOSEPH A. VENA, Professor of Biology, B.S. St. Peter’s College; M.S., Ph.D. Fordham University

ELIZABETH F. WAGONER (Mrs. Frank), Assistant Professor of Nursing, B.S. Ohio State University; M.A. Columbia University

JOHN K. WALTHER, Associate Professor of Education, B.S. State University New York; M.Ed., Ph.D. Cornell University
BENJAMIN WANG, Assistant Professor of Chemistry, B.S. University of Illinois; Ph.D. University of Pennsylvania

HENRY S.Y. WANG, Assistant Professor of Psychology, B.A. Taiwan Normal University; M.S., Ph.D. Purdue University

HERMAN M. WARD, Jr., Professor of English, B.A. Montclair State College; M.A., Ph.D. Princeton University

L. RICHARD WARNER, Assistant Professor of Education, B.S. Glassboro State College; M.Ed. Rutgers University; Ed.D. Temple University

RAYMOND G. WASDYKE, Assistant Professor of Industrial Education and Technology, B.A. Montclair State College; M.A. Trenton State College

EDWARD D. WATSON, Professor of Education, B.S. Kutztown State College; Ed.M. Pennsylvania State University; Ed.D. Rutgers University

RICHARD D. WEBER, Professor of Music, B.M.E., M.A. Bradley University; Ed.D. Columbia University

WILLIAM H. WEGNER, Associate Professor of Speech, B.A., M.A. Northwestern University; Ph.D. New York University

STEPHANIE WEINBERG, Assistant Professor of Psychology, A.B., A.M., Ph.D. Boston University

SEYMOUR WEINSTEIN, Assistant Professor, Library, Assistant Librarian for Readers Services, B.A. Roosevelt University; M.L.S. University of Maryland

ELIZABETH WELLER, Instructor of Student Personnel, B.A. Muhlenberg College, M.S. Ed. Indiana University

ROBERT M. WHARTON, Assistant Professor of Mathematics, B.A., M.A. Temple University

RAY E. WHEELER, Assistant Professor of Student Personnel, B.A., M.A. Trenton State College, on leave

MARK M.S. WILENSKY, Assistant Professor of Art, A.A. N.Y.C. Community College; B.A., M.A. University of New Mexico

PAULINA B. WILKER, Assistant Professor of Education, B.S. Temple University, Ed.M. Rutgers University

DONALD E. WILLIAMS, Associate Professor of Health and Physical Education, B.S. West Chester State College; M.Ed. Temple University

ELOISE WILLIAMS, Social Work Supervisor, B.A. Hunter College; M.S.W. Columbia University

KENNETH E. WILLIAMS, Associate Professor of English, B.A., M.A., Ph.D. Temple University; B.D. Princeton Theological Seminary

DENT WILLIAMSON, Instructor of Music, B.M., M.M. New England Conservatory of Music

G. ROBERT WILLS, Associate Professor of Political Science, B.A., M.A., Ph.D. Duke University

PETER A. WINKEL, Assistant Professor of Modern Languages, B.A., M.A. Rutgers University

LEON B. WOLCOTT, Professor of Sociology, B.A. Hillsdale College; M.A. University of Michigan; Ed.D. Harvard University

PETER R. WOOD, Assistant Professor of English, A.B. Bates College; M.A. University of Pennsylvania

ROLAND WORTHINGTON, Associate Professor of Student Personnel, B.A. Upsala College; M.A. Seton Hall University; Ph.D. University of Utah

IRVING WORTIS, Assistant Professor of Library, B.A. University of Wisconsin, M.L.S. Columbia University
ELEANORE WRIGHT, Associate Professor of Education, B.S. Trenton State College; Ed.M., Ed.D. Rutgers University

LILYAN B. WRIGHT, (Mrs. Richard), Associate Professor of Health and Physical Education, B.S., M.Ed. Temple University

R. DONALD WRIGHT, Associate Professor of Education, A.B. LeMoyne College; Ed.M., Ed.D. Rutgers University

KATHLEEN WYNNE, Instructor of Health & Physical Education, B.S. Central Connecticut State College, M.S. Smith College

MARY L. YATES (Mrs. Harry), Associate Professor of Education, B.S. Rutgers University; M.A. Trenton State College

CARMINE A. YENGO, Professor of Education, A.B., M.A. Ph.D. Cornell University

R. DAVID YOUNG, Associate Professor of Student Personnel, Clinical Psychologist, B.A. Harvard University; Ph.D. University of Texas

KUANG-HUA YU, Instructor, Library, Catalog Librarian, B.A. Taiwan Normal University, M.L.S. Pratt Institute

EMERITI

ROSCOE L. WEST, President Emeritus, B.S., Ed.M. Harvard University; Litt. D. Rutgers University

ADELBERT K. BOTTS, Professor Emeritus of Geography, B.A. State Teachers College, Valley City, N.D.; M.A. Ph.D. Clark University

GLENN E. FROMM, Professor Emeritus of Business Education, B.S. University of Iowa; Ed.M. Harvard University; Ed.D. New York University

CAROLYN R. HAMMOND, Professor Emeritus of Health and Physical Education, B.S., M.A. New York University; Ed.D. Temple University

HARLAN H. MILLER, Professor Emeritus of Economics and Sociology, B.S. Indiana State Teachers College at Terre Haute; M.A. Columbia University

CARL N. SHUSTER, Professor Emeritus of Mathematics, B.S., M.A., Ph.D. Columbia University

SHIRLEY M. TROXEL, Professor Emeritus of Chemistry, B.S. Illinois Wesleyan University; M.S., Ph.D. University of Illinois

ARTHUR PARKS, Professor Emeritus of History, A.B. Yale University, M.A. Teachers College, Columbia University, Ph.D. Columbia University

DOROTHY FERGUSON HARP, Professor Emeritus of Library Science, B.S. Trenton State College, B.A., M.A. Drexel Institute of Technology

CHARLES W. HARP, Professor Emeritus of Chemistry, A.B. University of Arizona, M.A. Teachers College, Columbia University

LAURENCE E. ELY, Professor Emeritus of Education, B.A. Southern Methodist University; M.A. University of Texas; Ed.D. University of Pennsylvania
Green Hall is an administration-classroom building. Offices on the first floor include those of the President, Vice-Presidents, Student Personnel Services, Admissions, Registrar, Continuing Education, Graduate Study, Advisement, Placement, and Public Relations. The Business Office, Security and Traffic Office, Computer Center and Art Department are located on the basement level. Offices for the Departments of Business, Elementary and Early Childhood Education*, Educational Field Experiences*, Educational Foundations* and Modern Languages are found on the second floor, along with Alumni Affairs office and the Office of Community Relations.

Kendall Hall houses the campus auditorium (1,030 seats) with offices, classrooms, clinics and workshops for the Departments of Speech and Theater, Speech Pathology and Audiology. A small auditorium (169 seats) in this same building is used for classes, workshops, and studio productions. A T.V. Studio is on the second floor and the studios of WTSR-FM are on the basement level.

West Library houses the College collection of approximately 200,000 volumes of all categories, a record library, an extensive collection of current and bound periodicals and 750 student study carrels. In addition, there are special reading, reference, microform rooms, as well as offices for the library staff. The second floor of the original section contains the offices and classrooms of the Department of Library Science.

Packer Hall, the center for the Department of Health and Physical Education, has facilities for all indoor varsity and intramural athletics. There are two gymnasiums, with seating for 1,600 and 500, respectively, which can be divided for classes. The building also contains a swimming pool, modern dance studio, and training rooms, as well as faculty offices.

Armstrong Hall, home of the Department of Industrial Education and Technology, houses classrooms and laboratories for the technical areas of electronics, graphic arts, power mechanics, architectural design, metals, and wood crafts. This building also accommodates the College Press and the transmitter for WTSR-FM.

Science-Mathematics Building houses a planetarium, lecture hall, and roof-top observatory in addition to classrooms, and laboratories for the Departments of Biology, Chemistry, Physics, and Mathematics.

Bray Hall is the music center of the College. The building includes a recital hall, rehearsal hall, individual practice rooms, music library, and a record listening room, as well as classrooms and faculty offices.

Phelps Hall, a support building, includes a 735 seat dining hall, a snack bar, a faculty dining room, and four private dining rooms. The building provides office space for student government, student publications, the counseling center, off-campus affairs, chaplains’ offices, student lounge, and the alumni lounge, currently being used as an art gallery and meeting room.

Education Classroom Building. This building, now under construction and scheduled to be finished in time for use in the Fall of 1971, will contain a 360 seat lecture hall and two 160 seat lecture halls and offices and classrooms for child study in a one-story section. A four-story section will contain offices, classrooms, laboratories, and special facilities for the Departments of Instructional Media and Technology, Special Education, Educational Field Experiences, Educational Foundations, Elementary and Early Childhood Education and Psychology. The building will also serve as the College center for Educational Television.

The three relocatable buildings adjacent to Packer Hall contain 21 temporary classrooms constructed to provide space for an expanding enrollment. One of these buildings also houses the offices of the Department of Geography.

The College uses eight former residences on the outskirts of the campus for the following offices: Special Education*, Economics, Police Science, Instructional Media* Nursing, Child Study, English, Political Science, History and Sociology.
The HUB serves as the College Union. Facilities include a lounge, snack bar, and game room. Also located within the HUB are offices for student activities, college union personnel, the calendar office, and a sign printing and duplicating service.

Ely House and Bliss Hall are men's dormitories. Bliss Hall also provides an office for the CHANCE program and the Psychology Department.

Allen House, Brewster House, Norsworthy Hall, Cromwell Hall and Decker Hall are women's residence halls. Decker also provides a college dining room seating 700. Brewster House is the location of the housing office, while a portion of Norsworthy Hall is used as the College Infirmary.

Centennial Hall serves as a co-ed residence facility housing 106 men and 101 women.

Travers-Wolfe Towers, now under construction and scheduled to open in the Fall of 1971, will house 500 men in one 10-story tower and 500 women in the other, with lounges, recreation rooms and dining facilities in the two-story connecting section.

The College Store, a 8,100 square foot building owned and operated by the Student Cooperative Association, stocks a variety of books, required academic materials, stationery, as well as sundries.

The Alumni Chapel was presented by the Alumni Association. It serves students of all denominations.

*Will move to Education Classroom Building when it opens.
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ROUTES TO THE CAMPUS

Railroad

Trenton is on the main service line of the Penn Central Railroad. The Railroad station is located in the city some five miles from the campus. Public transportation from the station to the College necessitates first taking a bus from the station to State and Broad Streets and connecting with a bus out Pennington Road to the Campus.

Automobile

The College is most easily reached by automobile.

From Newark and North Jersey:

Persons coming from North Jersey, using the New Jersey Turnpike, will find it helpful to exit at New Brunswick (Exit 9) and then follow Route #1 South.

*Leave Rt. #1 at Howard Johnson's which is the Lawrenceville turnoff (Route 546). Travel west on 546 to the Pennington Circle where Rt. 31 south is followed. The College is located about 4 miles south of this circle on the left side of Rt. 31 as you are traveling. The second entrance will lead you directly to Green Hall (the building with the clock tower) which houses the administrative offices.

As an alternate route, after you reach Howard Johnson's at the Lawrenceville cutoff, make a right turn on Rt. 546. After crossing Rt. 206 at the Lawrenceville traffic light, bear left almost immediately at the fork in the road and proceed on Denow Road for 1.6 miles until you reach Federal City Road. Turn left and continue 1.2 miles until you swing right on Ewingville Road. Go to the traffic light, turn left on Pennington Road (Rt. 31) and the campus is about a quarter mile on your left. (Blue and Gold trailblazers at key intersections help with directions.)

From Asbury Park-Freehold area:

Follow Rt. 539 to Penns Neck. At the junction of Rts. 539 and 1 make a left turn on Rt. 1. Follow Suggestion 1 or 2 from * above.

From Northwest New Jersey:

Follow Rt. 202 until it intersects Rt. 31 at Flemington. Continue along Rt. 31 until you reach the college. This is about one-quarter mile past the traffic light at Ewingville.

From South Jersey:

At the White Horse Circle, which is the junction of Rts. 206, 533, and 524, make a left turn on to South Broad Street (Rt. 206). Continue along South Broad Street for about 4½ miles. At the Battle Monument make a left turn on to Route 31, Pennington Avenue which later becomes Pennington Road. After driving straight on this road for approximately 3½ miles, you will reach the campus.

Alternate Route from South Jersey:

Use Exit 7 at Bordentown if you travel the N.J. Turnpike. Rt. 206 leads into the White Horse Circle which is the junction of Rts. 206, 533 and 524. Follow the Princeton-Mercer-ville arrow and take Rt. 533 to the first traffic light intersection (about half mile). Turn left and stay on this street which is Arena Drive and becomes Olden Avenue. Continue on Olden Avenue for 6 miles from White Horse Circle to Pennington Road (Rt. 31) where you turn right. (By following the Blue and White Mercer County Airport signs you will remain on the entire six-mile route from the circle.) The campus is about 1.5 miles north from the Olden Avenue-Pennington Road intersection.