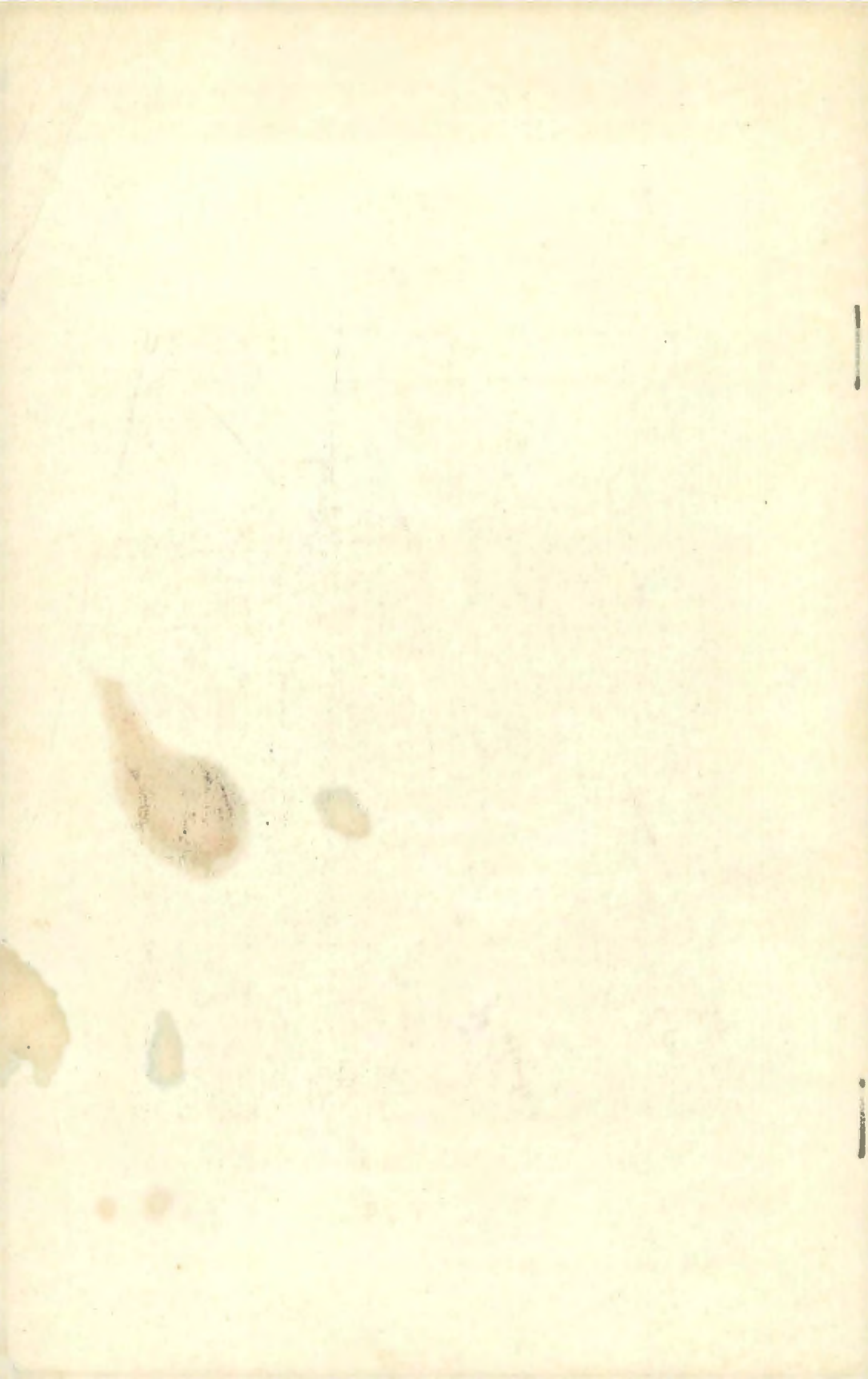


CALIFORNIA STATE COLLEGE
California, Pennsylvania

College Bulletin
1972-1974



Undergraduate Programs



California State College Bulletin



UNDERGRADUATE PROGRAMS 1972-74

VOLUME 72

No. 1

CALIFORNIA STATE COLLEGE
IS FULLY ACCREDITED BY
THE MIDDLE STATES ASSOCIATION OF COLLEGES AND
SECONDARY SCHOOLS
THE COLLEGE IS A MEMBER OF
ASSOCIATION OF STATE COLLEGES AND UNIVERSITIES
AND
AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER
EDUCATION

The college in the twentieth century is a dynamic institution. The only constant is change. Therefore, this catalog is a description of the curriculum, regulations, fees and directories as of the time of preparation for publication. More exact information can be obtained by calling or writing the appropriate division of the college.

The provisions of this bulletin are not to be regarded as a contract between the student and the college. The college reserves the right to change any requirements at any time during the student's matriculation.

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Cover designed by:

Assistant Professor Benjamin Kneisley, Industrial Arts Department

ACADEMIC CALENDAR

FALL TRIMESTER 1972-73

Freshman Orientation	Thursday, September 28
Registration	
Undergraduate and Part-Time	Friday, September 29
	Saturday, September 30
Classes Begin	Monday, October 2
Thanksgiving Recess	
Begins After Classes	Wednesday, November 22
Ends at 8:00 A.M.	Monday, November 27
Christmas Recess	
Begins After Classes	Thursday, December 21
Ends at 8:00 A.M.	Wednesday, January 3
Winter Commencement	Saturday, January 13
Trimester Ends	Wednesday, January 31

SPRING TRIMESTER 1973

Freshman Orientation	Thursday, February 1
Registration	
Undergraduate and Part-Time	Friday, February 2
	Saturday, February 3
Classes Begin	Monday, February 5
Easter Recess	
Begins After Classes	Wednesday, April 18
Ends at 8:00 A.M.	Tuesday, April 24
Spring Commencement	Saturday, May 19
Trimester Ends	Tuesday, May 29

SUMMER TRIMESTER 1973

Freshman Orientation	Monday, June 4
Registration	
Undergraduate and Part-Time	Tuesday, June 5
Classes Begin	Wednesday, June 6

SUMMER TRIMESTER 1974

Freshman Orientation	Monday, June 3
Registration	
Undergraduate and Part-Time	Tuesday, June 4
	Wednesday, June 5
Classes Begin	Thursday, June 6
July Fourth Recess	
Begins After Classes	Wednesday, July 3
Ends at 8:00 A.M.	Monday, July 8
First Six Weeks Ends	Tuesday, July 16
Second Six Weeks Begins	Wednesday, July 17
Second Six Weeks Ends	Friday, August 23
Labor Day Recess	
Begins After Classes	Friday, August 30
Ends at 8:00 A.M.	Wednesday, September 4
Summer Commencement	Saturday, September 14
Trimester Ends	Tuesday, September 24

FALL TRIMESTER 1974-75

Freshman Orientation	Thursday, September 26
Registration	
Undergraduate and Part-Time	Friday, September 27
	Saturday, September 28
Classes Begin	Monday, September 30
Thanksgiving Recess	
Begins After Classes	Wednesday, November 27
Ends at 8:00 A.M.	Monday, December 2
Christmas Recess	
Begins After Classes	Saturday, December 21
Ends at 8:00 A.M.	Friday, January 3
Winter Commencement	Saturday, January 18
Trimester Ends	Wednesday, January 29

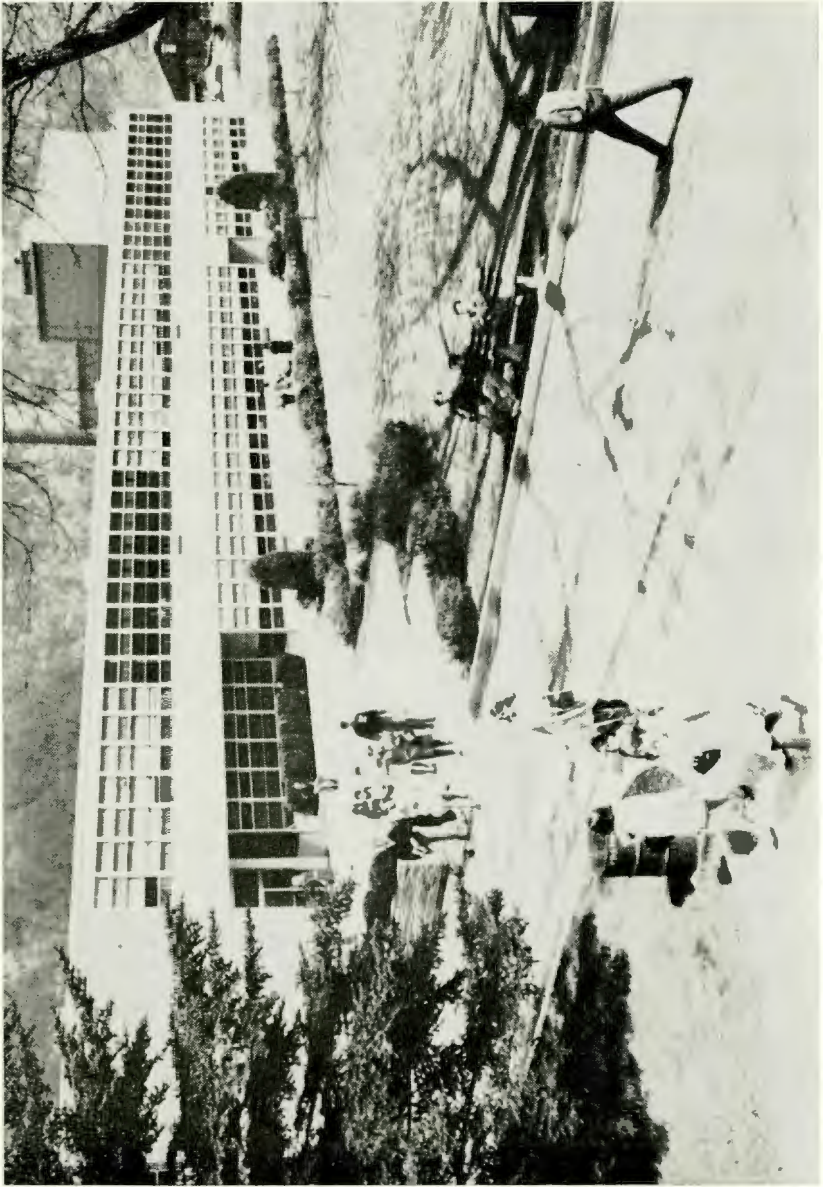
SPRING TRIMESTER 1975

Freshman Orientation	Monday, February 3
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Registration	
Undergraduate and Part-Time	Tuesday, February 4
	Wednesday, February 5
Classes Begin	Thursday, February 6
Easter Recess	
Begins After Classes	Wednesday, March 26
Ends at 8:00 A.M.	Tuesday, April 1
Spring Commencement	Saturday, May 17
Trimester Ends	Wednesday, May 28







HISTORY AND INFORMATION

HISTORY

California State College, one of fourteen institutions of higher learning owned by the Commonwealth of Pennsylvania, traces its origin to the establishment of an academy in 1852, three years after the community was founded. Incorporated as a borough on November 26, 1853, California derived its name from the fact that it was plotted and settled during the 1849 Gold Rush. The town was also called "Columbia" and "Sagamore" during its infancy.

Six men were involved in the founding of California—Job Johnson, George W. Hornbake, Abram Frye, William Jackman, William Ashmead and John Wood.

Johnson was the leader in planning educational facilities for the new community. Concerning the vital role he played, Wickersham's *History of Education in Pennsylvania* said: "Foremost in pushing forward the educational movement was Job Johnson, a Quaker in this Scotch-Irish country, and a man of great public spirit." The town's original incorporators, spurred by Johnson, were also the founders of the college. They constructed a two-story building of hand-pressed brick near the site of the community's current junior high school.

The school opened in 1852 with Professor Ellis N. Johnson, a nephew of Job Johnson, as the first principal. He brought his staff, consisting of Professor N. D. Fanning and Miss Vane Scott, with him from Ohio.

Although the original incorporators failed to secure a charter for their school, they did manage to provide public funds for the institution by levying a community tax for "school purposes." The school was considered an essential ingredient of the model town.

Purchase of a 10-acre plot for the academy—on which most of the older buildings still stand—was completed on November 14, 1864, at a price of \$133.44.

A total educational attempt was made at the new academy, extending from the kindergarten to the college level. The higher education portion of the curriculum was largely liberal arts.

Economic problems soon forced the college to seek funds beyond the community. The State Normal School Act of 1857 provided an opportunity for state funding, and the trustees sought to have the academy designated as the Normal School for the 10th District. They

obtained a charter in 1865, converting the school to a teacher-preparatory institution and the curriculum was modified to include a three-credit course entitled "The Art of Teaching."

In 1874, the college was named the South Western State Normal School with an emphasis solely on teacher preparation. The new normal school adopted the "trimester" plan in order to assist in teacher improvement. A library was established under the direction of a full-time librarian. Miss Elin Essolins of Sweden was employed to teach "Sloyd," a forerunner of industrial arts, in a laboratory that was set up in Science Hall.

The trustees and stockholders sold the school to the Commonwealth in 1914, when it became California State Normal School. Departments of physical culture and commercial training were discontinued at that time and the college concentrated exclusively on a two-year preparatory course for elementary school teachers.

Another switch in direction and goals occurred in 1928, when the Commonwealth changed the normal school to a four-year, degree-granting state teachers college. Emphasis at this time was also focused on preparation for secondary schools, industrial arts and atypical or special education.

In 1959, the college returned to the original goals of the founding fathers when it became a multi-purpose institution with increased attention on general or liberal education in all areas.

OBJECTIVES

The faculty and students of California State College view themselves as members of an educational center concerned with the preservation, discovery, and dissemination of knowledge in the areas of the arts, sciences, and professional education, and with the creative application of that knowledge in their lives, both as individuals and members of society.

Specifically, the objectives of this institution are as follows:

1. To provide a competent faculty, an efficient administrative staff, and adequate facilities.
2. To provide the kind of liberal education which aims at developing critical thinking and initiative.
3. To provide a flexible, forward-looking program of studies designed to meet the needs of a dynamic society.

4. To provide a comprehensive curriculum of studies, both on the undergraduate and the graduate levels, which aims at equipping the student with breadth of knowledge, depth of understanding, and analytical and technical skills to enable him to perform more effectively whatever task he might contemplate.

5. To foster a high level of communication among faculty, students, and administration.

6. To promote a wide range of cultural and intellectual activities of local, national, and international significance.

7. To encourage thoughtful and responsible faculty-student participation in local, state, national, and international affairs.

8. To expand the educational program to enable all qualified students to obtain a college education.

9. To provide academic opportunities to persons interested in non-degree programs.

10. To aid and encourage scholarly and scientific research, high standards of teaching, and participation in professional activities.

11. To create and maintain an environment in which the inalienable rights of all men are respected.

Adopted August 28, 1969

THE CAMPUS

The college is in the Borough of California, a community of approximately six thousand residents located in Washington County on the bank of the Monongahela River. It is accessible by means of Pennsylvania Route 88. Route 88 intersects with U.S. Route 40, five miles south of the town and with Interstate Route 70 at Speers, eight miles to the north.

The existing campus consists of thirty buildings situated on 148 acres. A stadium and other facilities are located at the College Farm on Route 88, two miles south of the main campus. In order to accommodate the increase in enrollment, a building program was launched in the late 1950's. The comprehensive plan calls for forty-five buildings which will be in use by 1980.

THE PROGRAM

In order to fulfill the college objectives and to provide continuous education for all levels of society, California State College has developed a number of programs. All undergraduate programs are based on two years of broad general education designed to assist the individual expand his skills in communication, grow in cultural and intellectual interests, and develop his ability to do critical thinking.

The programs currently offered are Arts and Sciences, Teacher Education, and Graduate Studies. A General Studies program is available for adults who wish to take college courses for personal satisfaction.

Academic programs are supplemented by excellent provisions for students to participate in cultural activities. The college provides an outstanding film series, exceptionally good theatre, symphony and choral music, and opportunities to hear and meet national leaders from all facets of society. A long range plan for the purchase of award winning creations in art has resulted in a good collection on campus. Art exhibits are featured throughout the year.

THE LIBRARY

The J. Albert Reed Library houses 180,000 volumes in conjunction with study lounge facilities for recreational reading, seminar space, exhibit areas, and a classroom for the teaching of techniques. An adequate annual budget maintains microfilms and microcard collections; a spokenword record collection, to which operatic and symphonic albums are being added; and an open-stack periodical room with individual study carrels to encourage concentrated and independent student effort. Professional librarians interpret the collection to the campus and account for substantial increases in holdings each year, particularly in the field of Slavic studies.

PLACEMENT SERVICES

The Placement Office was established to assist seniors, graduate students and alumni of California State College in obtaining full-time, permanent, professional employment. Through the Placement Service, students may obtain general advice and information on job opportunities.

On-campus interviews are scheduled annually for students interested in meeting with representatives from school districts, business firms, governmental agencies, and industries seeking California State College graduates.





ADMISSION TO THE COLLEGE

Undergraduate Programs

CALIFORNIA STATE COLLEGE welcomes applications from all racial, religious, and nationality groups.

ENTRANCE REQUIREMENTS

Admission standards have been established by California State College for the purpose of ascertaining which prospective students will be most likely to succeed in the program of the college.

1. *General Scholarship.* An applicant for admission to the college should have been graduated from a four-year high school of accredited standing or possess an equivalent diploma issued by the Department of Education.

2. *Aptitude and Ability Standards.* All applicants should submit to the college evidence of ability to do college work as indicated by tests such as the College Board Examination.

3. *Character and Personality.* The candidate for admission to the college must be able to demonstrate that he possesses the personality traits, interests, attitudes, and personal characteristics deemed necessary for an advanced education. The candidate must submit recommendations by the high school principal or guidance counselor of his secondary school for evidence of character and personality.

4. *Admission to Special Curricula.* A student seeking admission to a special curricula may be required to take an appropriate aptitude test in the special field in order to obtain further evidence of ability to succeed in this special field.

ADMISSION PROCEDURES

Requests for the appropriate admission forms should be addressed to the Director of Admissions, California State College, California, Pennsylvania 15419.

The prospective student seeking admission to the college for the first time should obtain from the college the appropriate forms, have them completed in detail and should file these forms with the college's Director of Admissions. The forms required are:

1. Application and Personal Record Form. This form which is recognized by its blue color, should be filled in by the applicant. The applicant's signature is required on this form.

2. Secondary School Record Form. The white form is to be filled out by the high school principal. This high school record must include a recommendation from the school and it must include a statement of the applicant's class standing. If the applicant is still attending high school, that school should complete the form including all current information.

The new applicant must submit an application fee of \$10. This fee is not refundable. The fee should be attached to the blue application form which is the Application and Personal Record Form. A money order for this amount must be made to the favor of the Commonwealth of Pennsylvania. Personal checks or cash are not acceptable.

The new applicant should arrange to take the Scholastic Aptitude Test section of the College Board Examination and should make arrangements to have the scores from this examination sent to the Director of Admissions. All applicants will be required to have a Social Security Number.

TRANSFER FROM ANOTHER COLLEGE

The student who seeks to transfer into California State College should follow the procedures listed below:

1. Complete all forms required for the student seeking admission to the college for the first time and file these forms in the office of the Director of Admissions of the college.
2. Submit with the Application and Personal Record form an application fee of \$10 which is not refundable. The fee should be submitted in the form of a money order drawn to the favor of the Commonwealth of Pennsylvania.
3. The student should arrange to have all other colleges attended submit to the Director of Admissions copies of transcripts and statements of honorable dismissal. The statement of academic dismissal must indicate that the student has been cleared academically and personally. This information must be sent directly by the other college to the Director of Admissions, California State College, California, Pennsylvania.

TEACHERS IN SERVICE

Prospective students who are currently teachers in service only need to file the single admission form in order to be approved for part-time admission to the college.

POST-GRADUATES

Applicants for admission who are graduates from other colleges and who desire to attend California State College full-time in order to obtain certification for teaching purposes must complete and file with the Admissions Office the three basic forms and a copy of the official transcript from the other college(s) attended. No admission test is required.

SUMMER SCHOOL ADMISSIONS

Students will be admitted to the California State College summer school program under the following conditions:

1. Students will be permitted to register for courses if they are regularly enrolled full-time or part-time students in good standing with the college.
2. Teachers in service will be permitted to register for courses in the summer school program if they have filed the appropriate admission forms and had them approved by the admissions committee.
3. Students who wish to transfer into the college on a temporary basis from another college will be permitted to register for courses if they have the approval of the Dean of Instruction of their college and have the approval of California State College's admission committee.
4. Entering freshmen will be permitted to register for courses in the summer school program if they have been officially approved by the admission committee prior to registration.

ADMISSION OF OUT-OF-STATE AND FOREIGN STUDENTS

Out-of-state and foreign students may be admitted to California State College. In the case of foreign students, admission will depend upon acceptable clearance from the education authorities of the countries concerned and the Department of State of the United States. Applicants must have competency in the use of the English language.

REQUIREMENTS FOR ADMISSION TO THE GENERAL STUDIES PROGRAM

The requirements for admission to the General Studies Program are as follows:

1. The applicant must be 21 years of age or older.
2. The applicant must be a graduate of high school or hold the Department of Education equivalent diploma.

The student who has been approved for the General Studies Program is eligible to take the college courses open to entering full-time students.

TRANSFER OF GENERAL STUDIES CREDITS TO THE REGULAR COLLEGE PROGRAM

Students in the General Studies Program may, after the completion of 12 credits, petition the Dean of the Division of Arts and Sciences or the Dean of Teacher Education for admission to these respective divisions. If approved, the credits carried in the General Studies Program will be honored, if applicable to the major field or general education programs.

ADMISSION PROCEDURES FOR THE GENERAL STUDIES PROGRAM

Students seeking admission to the college in the General Studies Program should follow the procedure given below.

1. Submit to the Director of Admissions, California State College, California, Pennsylvania the following forms:

Application and Personal Record Form. This form which may be recognized by its white color is to be completed in full by the applicant. A signature by the applicant is required on this form.

Record of Secondary School Work. This form must be completed by the high school principal or guidance counselor.

2. It is necessary to send an application fee of \$10 along with the application form. This \$10 fee is not refundable and is not credited for fee payments.

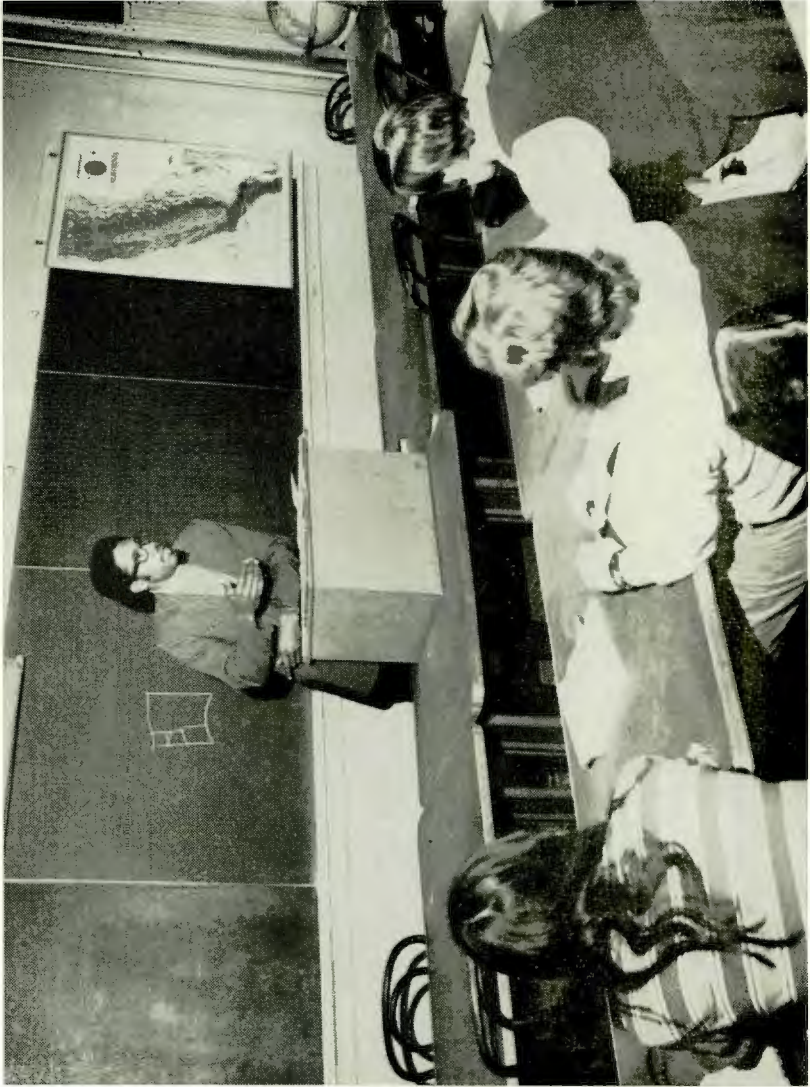
The student should submit this fee in the form of cashiers check or money order for the exact amount. It should be drawn to the favor of the Commonwealth of Pennsylvania. Cash or personal checks are not acceptable.

3. After all application forms are filed with the office of admissions and the application fee has been paid, the admissions com-

mittee will evaluate the application and inform the applicant of his status in relation to admission to the General Studies Program.

ADVANCED PLACEMENT PROGRAM

Credit for advanced placement may be obtained through the Advanced Placement Program of the College Entrance Examination Board.



ACADEMIC PROCEDURES AND REGULATIONS

The student is advised and expected to familiarize himself with the academic regulations of the college and the requirements for his own educational program. Faculty advisors are made available to assist students in planning an academic program, but the student has the responsibility for meeting all requirements for his degree. Students are urged to take advantage of the advisory and consultation services available at the college.

Students should feel free to consult with instructors, their assigned academic advisor, the student's department head, the deans, and the Vice President of Academic Affairs. Faculty members maintain regular office hours for student consultations.

DEGREES OFFERED

California State College offers courses leading to the degree of Bachelor of Arts and the degree of Bachelor of Science in Education. On the graduate level students may earn the degree of Master of Education, Master of Art, and Master of Science in various disciplines.

Requirements for the Masters degrees can be found in the Graduate School Bulletin.

CREDITS

Credit for course work is recorded in terms of credit hours. For formal course work, one credit hour represents one class period per week for one trimester of sixteen weeks as indicated in the academic calendar. In laboratory courses, a ratio of two, three, or four hours of laboratory work for one credit prevails, according to the department. Due to specific course requirements, outside assignments and library assignments, even though the credit hour load is fifteen or sixteen, the assigned clock hours per week may total as high as thirty or more. Descriptive titles and credit values of courses are listed in the section of this bulletin devoted to course offerings.

RESIDENCE REQUIREMENTS

Students in all curriculums must complete a minimum of twenty-four credits, in courses given by the college, at California State College. These credits must be taken on the campus in regular day, evening, or Saturday classes during their last sixty hours of work prior to graduation.

CREDITS EARNED BY EXAMINATION

A student may be given credit for a course in which he registers and in which he demonstrates competency by taking a qualifying examination. Grades received will be pass (P) or fail (F) under this provision.

Requests for credit by examination must be made with the department chairman involved and approved by the Vice President of Academic Affairs.

If the request is approved, the student will register for the course and within two weeks of the final registration date take the examination. Credits earned in applicable courses will apply towards graduation.

TRANSFER OF CREDITS FROM ANOTHER COLLEGE OR UNIVERSITY

Students transferring from another accredited college must make formal application through the Admissions Office.

To obtain advanced standing, the student must have all transcripts evaluated prior to registration. Program credit will be determined by the Dean of Arts and Science or the Dean of Teacher Education, and the student will be assigned to an advisor.

Only courses applicable to the student's program with a C or higher grade will be accepted for advanced standing.

All credits earned by students who apply for advanced standing must be approved by the Vice President of Academic Affairs.

Correspondence credits earned outside the armed services are not acceptable.

TRANSFER FROM TWO YEAR COLLEGES

California State College recommends that a student complete two years of satisfactory course work prior to admission to the college. C grades or higher in appropriate courses will be accepted towards the student's program. Full-time students with a better than average record may be admitted at the end of the first year.

All students must apply and present transcripts prior to the regular registration dates.

No student may be graduated and receive a degree unless he has completed a minimum of twenty-four credits at California State College.

VETERANS OF THE ARMED FORCES

Veterans applying to the college should apply early and present evidence of honorable discharge from the Armed Service.

Veterans who have completed a minimum of eighteen months in the armed service, upon request to the Vice President of Academic Affairs, may receive a maximum of five credit hours in Health and Physical Education.

College credit may be earned for courses taken through the United States Armed Forces Institute, Madison, Wisconsin. Official records of these courses should be presented to the Vice President of Academic Affairs for evaluation and approval of credit. Correspondence courses completed through the armed forces schools may be acceptable towards college credit.

The student must submit all records of courses taken to the Vice President of Academic Affairs for approval.

PART-TIME AND CONTINUING EDUCATION

Students and in-service teachers may wish to take advantage of evening and Saturday classes to further their education. Courses are offered in regular degree programs for post baccalaureate work leading to permanent certification or to interim certification. A program of general studies is also offered.

1. Public School Nursing Program: Registered Nurses may earn a Bachelor of Science in Public School Nursing in either the full-time or part-time programs. A total of 68 credits is given for the registered nurses program.

2. Dental Hygienist: Credit hours may be transferred into the Dental Hygienist program.

3. General Studies: This program is designed for adults 21 years of age or older with evidence of high school graduation. A total of six or less credit hours are recommended each term. After completion of a minimum of 12 credit hours, the student may petition the division of Arts and Sciences or Teacher Education for acceptance into a degree program. Students will be considered non-degree students until the official acceptance to a degree program is complete and transfer to a division is recorded with the registrar.

4. Students holding a college degree who wish to pursue undergraduate course work will be considered continuing education students. They may earn credit towards permanent certification, certification extension or interim certification.

5. Requests for admission to these programs should be made to the Director of Admissions. Information and advisement arrangements should be made with the Vice President for Academic Affairs.

SUMMER SESSIONS

The college has a full program offered on the trimester and six-week program basis during the summer. The trimester runs from June through September. Two six-week programs are offered from June to mid-July and from mid-July to the end of August.

Students may accelerate their programs and reduce the time required to obtain a degree.

In-service teachers are offered a variety of workshops and classes to meet the various needs of teachers.

Students from other institutions wishing to take course work to transfer to their own colleges are accepted upon application.

Forms and applications for non-matriculating students may be obtained from the Director of Admissions. All students should apply prior to registration.

REGISTRATION REGULATIONS

All registrations will be governed by the following regulations:

1. A student must be regularly admitted to the college *before* permission will be granted to register. A written verification of official admission to college will be required as a ticket of admission to registration.
2. An official registration is contingent upon academic eligibility to register. Any registration completed in violation of this rule will be revoked.
3. Each student is required to register *in person* according to the registration schedule as announced by the college.
4. Each student must comply with all registration procedures and complete the registration within the deadlines set by the college.
5. A registration is *not* complete until:
 - a. All required registration materials have been properly completed and turned in on time as designated.

- b. All college fees have been paid in full or a payment plan has been arranged by the Director of Financial Aid. In all such cases, the student involved must complete his special financial arrangements in the office of financial aid *prior* to the deadline for payment of fees and comply with the billing instructions from the Business Office.
6. Failure to register in the official manner as announced in college publications and elsewhere will cause the registration to be cancelled.

CANCELLATION OF REGISTRATION

1. A student may cancel his registration prior to the payment of fees by notifying the registrar's office and by returning the bill for fees to the Business Office with a written statement indicating the decision to cancel the registration.
2. A student who completes registration and pays his fees but subsequently decides not to attend college is required to notify the registrar's office immediately.
 - a. If the notification is received prior to the first day of classes, the student will be charged as follows:
 - (1) A *full-time student* (12 or more credits) will forfeit \$25 and the balance paid will be refunded or credited to the student's account.
 - (2) A part-time student will forfeit \$10 and the balance paid will be refunded or credited to the student's account.
 - b. If the notification is received after the term begins but not later than the sixth week of a trimester, the registration will be cancelled. However, the student will forfeit a portion of his fees based upon the week of notification. *Note:* For six-week courses, the notification must be received no later than the end of the second week. (Refer to section on refunds)
3. Failure to cancel registration in the appropriate manner as explained above will result in the forfeiture of all fees paid and in the assessment of F grades for all courses scheduled.

COMPUTATION OF GRADE POINT AVERAGE

A student's grade point average is calculated by dividing the total number of grade points earned in standard courses at California State

College by the total number of credit hours scheduled. Exceptions to this procedure are indicated below.

Grade point values per credit hour have been assigned to letter grades as follows:

<i>Grade</i>	<i>Grade Points Per Credit Hour</i>
A	4
B	3
C	2
D	1
F	0

INC — Incomplete	0
P — Passed	0 (Not counted in the GPA)
WP — Withdrew passing after 6 weeks	0 (Not counted in the GPA)
WF — Withdrew after 6 weeks with a “D” or “F” grade (Will be counted in the GPA)	

1. Courses transferred officially from other colleges, advanced placement courses, courses passed by examination, and credits granted for military service are *not* counted in a student's grade point average.
2. When a course is repeated, only the repeat grade will be counted in the grade point average.
3. No record of a failing grade will be kept if a student elects to take a course by examination and subsequently fails the examination.
4. In the Pass-Fail Grading System, a grade of P will not be counted in the grade point average. However, the credit hours passed will be recorded and counted in the conventional manner. A failing grade under this system will be counted in the grade point average.

Rules Governing Incomplete Grades:

1. An incomplete grade must be removed by special arrangement between the student and the instructor in the academic session, either trimester or summer, immediately following.
2. After the lapse of one term, trimester, or summer, the grade may be changed only upon written approval of the Vice President for Academic Affairs.
3. After the lapse of one year, the incomplete grade automatically becomes an F grade.

GRADING SYSTEM

- A—indicates superior attainment
- B—indicates attainment above the average
- C—indicates average attainment
- D—is the lowest passing grade
- F—indicates failure
- P—indicates passing (used for required, preparatory courses, orientation, and student teaching courses)
- INC—indicates incomplete work
- W—indicates withdrawal from a course

The symbol (INC) for incomplete is used only for a student who has been a class member for the entire trimester or session and has not been able to meet the class requirements due to a personal illness covering two or more consecutive weeks. It indicates that as the work is incomplete, the final grade is being withheld until the student fulfills all the requirements of the course. The following conditions govern an Incomplete:

1. It must be removed by arrangement between the student and the instructor in the session, either trimester or summer, immediately following.
2. After the lapse of one term, trimester or summer, the grade may be changed only upon approval of the Vice President for Academic Affairs.
3. After the lapse of one year, the incomplete grade automatically becomes a grade of F and cannot be removed without the student's repeating the course.

REGULATIONS GOVERNING PASS-FAIL COURSES

Under the Pass-Fail Grading System, students will receive the grade of "P" for A, B, C, or D earned in courses designated as "P-F." The grade of "P" will give credit hours in the course but the grade point average will not be affected by a "P" grade. "F" has the same meaning under the conventional system presently in effect and this P-F Grading System.

Students may schedule no more than two (2) general education courses each trimester on a P-F basis. *No more than five P-F courses may be counted toward graduation.* Students shall designate which courses they select to take on a P-F basis at the time of registration in the course according to the procedure explained below.

PROCEDURE FOR REGISTERING FOR PASS-FAIL COURSES

Students who want to register for Pass-Fail Courses as part of their General Education Program are required to comply with the following instructions:

1. After obtaining all class cards and immediately prior to final checkout, the student completes a Pass-Fail Declaration Form at the Data Processing Table and submits the form with the registration packet.

2. Once this has been done and registration has been completed, no changes will be permitted until the term begins. (Refer to rule No. 3)

3. Changes in Pass-Fail designations may be made during the first six (6) weeks of the trimester for trimester courses. (Designations for six-weeks courses may be changed during the first two (2) weeks only.) These changes must be initiated by the student in the office of the appropriate school dean.

STUDENT LOAD

Students who wish to carry more than a normal schedule of 15 or 16 trimester hours must have earned the right by reason of a high quality point average in the trimester completed prior to registration. Exceptional cases must obtain permission from the Vice President of Academic Affairs at the time of registration. Under no circumstances will excess credits be honored, whether taken in this college or in another institution without the approval of the Vice President. In reviewing applications to carry excess credits, the Vice President will give consideration not only to the academic standing of the applicants but also to their health records and extra-curricular activities.

Students are advised not to take more than one credit a week during summer terms at other colleges if they expect to use credits thus earned toward degrees from this college. Students planning a summer session at another college should consult the Vice President of Academic Affairs or their department chairman before registering.

CLASSIFICATION

Students are classified as freshmen who have less than 32 credits; as sophomores when they have 32 to 63 credits; as juniors when they have 64 to 95 credits; and as seniors when they have 96 or more credits.

The credits used to determine the classification of students include those earned at this college and those accepted by the college from other accredited institutions on the basis of official transcripts.

COUNSELING CENTER

The Counseling Center at California State College provides various professional services to students who wish to understand themselves better and to use their resources more effectively. A new Counseling Center was established on the campus in the Fall of 1970 and is staffed by qualified counselors. The activities of the Center are designed to meet the personal and individual needs of students, recognizing that each individual must meet certain basic personal needs in order to function successfully in a learning situation. Through individual and group counseling sessions, students may develop the personal characteristics and inter-personal human competencies to succeed in college. The remedial role of the Counseling Center is to help students face their academic problems, and, to some extent solve specific educational problems and to remedy academic skill and deficiencies.

All services of the Counseling Center are provided free of charge to students of California State College. The Counseling Center is located in newly renovated facilities in the basement of Herron Hall. Students can contact the Counseling Center either in person or by calling the college telephone operator. Counseling will be available during the day and the counselors can be contacted by phone through the college operator in the evening.

SPECIAL SERVICES

The Special Services Program at California State College, established in September, 1971, is designed to promote a more satisfactory college experience for the student with a low economical and/or educational background who seeks extra tutorial and counseling assistance, and who may encounter difficulty settling into a program of studies. Special Services seeks to increase the opportunity for students to successfully "make-it" in college, or, to at least have an opportunity "to-try." In its affiliation with the Counseling Center at the college, Special Services provides an advising, tutorial and counseling program based upon the individual's own dignity and human worth, committed to the goals of self-knowledge and personal motivation.

Using a staff of both professional and peer counselors and tutorial specialists, all services are provided to Special Service students. How-

ever, all students on campus are invited to seek academic help from the tutorial staff.

POLICY ON SCHOLARSHIP REQUIREMENTS

Students are expected to maintain a minimum standard of academic accomplishment for each term of attendance in order to continue their studies. This minimum standard is expressed in terms of a quality point average. The college reserves the right to refuse the privilege of further attendance to students who fail to meet the scholarship requirements.

The regulations on scholarship requirements and academic standing apply to all undergraduate students who are degree candidates.
Good Academic Standing

This classification means that a student has earned at least a C (2.00) average for all course work at California State College, is not on academic probation, and is therefore, granted the privilege of continued enrollment.

Regulations Governing Probationary Status

1. First trimester freshmen who earn a quality point average of less than 1.75 will automatically be placed on academic probation for the following trimester.

2. Freshmen who earn a quality point average of less than 1.00 during their first trimester will be placed on second probation.

3. Students, other than first trimester freshmen, who earn a quality point average of less than 2.00 during a trimester will automatically be placed on academic probation for the following trimester.

(*Note:* Those who register as full-time students and voluntarily reduce the number of credits scheduled to less than twelve (12) credits are not exempt from this regulation.)

4. The classification of probation is removed when a student has successfully completed at least twelve (12) credits with a C average (2.00) in residence during a given trimester.

Regulations Governing Academic Dismissal

1. Students, except first trimester freshmen, who fail to earn a quality average of 1.00 and do not have a 2.00 cumulative quality point average will be dismissed from college for a minimum of one trimester.

2. Students who earn a quality point average of less than 2.00 during or in any trimester after the second academic probationary period will be dismissed from college for a minimum of one trimester.

3. Reinstatement, or readmission, to college after a dismissal is not automatic. Those who have been dismissed for unsatisfactory scholarship may be considered for readmission upon proper request as explained in the section on Readmission.

TRANSCRIPTS OF RECORDS

Students who want to have transcripts of their work and certificates of good standing and honorable dismissal may secure them in the Registrar's Office, Room 103, Administration Building.

Transcript requests will be processed according to the following regulations:

1. A transcript request must be made *in writing*. This written request is the official authorization for the Registrar to release a copy of the student's academic record to a third party, or institution, as designated by the student. The request may be made as follows:
 - a. By completing a request form in the Registrar's Office (Room 103, Administration Building), or
 - b. By writing a letter to the same office indicated the number of transcripts required, type of transcript (undergraduate, graduate, or both), name and address of person making the request, and specific instructions as to where the transcript is to be sent (Example: Dean of the Graduate School, Pennsylvania State University, University Park, Pa. 16802).
2. As a safeguard against improper disclosure of academic information, no transcript requests will be accepted by telephone.
3. *Transcript Fee:* Each student is entitled upon proper request to receive one transcript without charge. Thereafter, the fee is \$1.00 for each transcript. Payment in full by check or money order must be included with each request sent by mail. (Checks or money orders should be made payable to the Commonwealth of Pennsylvania.)
4. Transcript requests will be honored as quickly as possible in order of the date of application. During busy periods such as registration, closing of a session, and graduation, there will

be some delay in processing the requests. Therefore, it is advisable to submit requests well in advance of the date the transcripts will be needed.

5. No transcript will be issued for a student whose financial obligations to the college have not been paid.

Note: Any questions concerning these regulations and related problems or transcript errors, should be presented to the Registrar.

READMISSION PROCEDURE

All requests for readmission to the college must be made to the appropriate dean.

COMPLETE WITHDRAWAL FROM COLLEGE

A student who decides to withdraw from college during any academic term, regardless of the reason, is required to report to the Registrar's Office and obtain withdrawal forms. After the completion of a withdrawal interview the student must obtain a clearance from the Student Affairs Office, the Library, and the Business Office. Upon receipt of the clearance form and a review of the student's records and status, the Registrar will certify as to the type of withdrawal.

In the event a student cannot arrange for his withdrawal personally as indicated above, he must notify the Registrar's Office by telephone or by letter immediately. All withdrawals from college will be governed by the following regulations:

1. An honorable dismissal will be granted to a student who withdraws from college in the official manner, has met all financial obligations to the college, and has been properly cleared by the Registrar.

2. There will be no academic penalty (i.e. no grades will be assigned and the record of the courses attempted will be deleted from the transcript) for a student who makes an official withdrawal from college during the first six (6) weeks of a trimester. For an official withdrawal from a six-weeks session, there is no academic penalty during the first three (3) weeks.

3. After the sixth week of a trimester, a student who makes an official withdrawal must receive WP or WF grades in all courses scheduled. Instructors must assign A, B, C, D or F grades, and the School Dean must translate A, B, C grades to WP and D or F grades to WF. For six-week courses, the WP-WF grades will be assigned after the end of the third week.

4. No student will be permitted to withdraw officially from college during the last three (3) weeks of a trimester.

5. Leaving college without notifying the Registrar's Office and making an official withdrawal will result in automatic failure for all courses scheduled. It will also make the student ineligible for any refund of college fees. Improper withdrawals of this type will be classified as "not in good standing."

DROPPING COURSES

Students who wish to drop courses or to make changes in their course schedules after registration must complete a change of schedule form in the office of the appropriate school dean. All course drops are governed by the following regulations:

1. Students may drop courses without academic penalty (i.e. no grade assigned and the record of the course, or courses, attempted deleted from the transcript) during the first six (6) weeks of a trimester. (*Note:* For six-week courses, the deadline is the end of the third week.)

2. All such course drops must be approved by the appropriate school dean no later than the end of the sixth week of a trimester and sent to the Registrar before the end of the seventh week.

3. After the sixth week of a trimester, students who drop courses must receive either WP or WF grades. Instructors must assign A, B, C, D or F grades and the school dean must translate A, B, C, grades to WP and D or F grades to WF. (*Note:* For six-week courses, the WP-WF grades will be assigned after the end of the third week.)

4. No student will be permitted to drop a course during the last three (3) weeks of a trimester.

5. Leaving a course without dropping it in the official manner will result in automatic failure of the course.

ADDING COURSES

Students are permitted to add courses during the first week of an academic term by completing a change of schedule form in the office of the appropriate school dean.

DISTINGUISHED SERVICE AWARDS

The Distinguished Service Awards are granted to the most outstanding woman and the most outstanding man of each graduating

class. The awards are made on the basis of activities, character, citizenship, leadership, and personality. The election of persons to receive the awards is made through a committee composed of members of the faculty.

COMMENCEMENT HONORS

Commencement Honors are awarded to a limited number of students in the graduating class. Not more than one-eighth of the class may receive honors. A minimum of two (2) years residence is required to receive commencement honors.

Highest Honors—Quality Point Average 3.75 to 4.00

High Honors—Quality Point Average 3.50 to 3.74

Honors—Quality Point Average 3.25 or better

This recognition can be bestowed only upon evidence of unusual ability as shown scholastic records and in keeping with standards established and approved by the faculty.

TRIMESTER HONORS

Trimester Honors (The Dean's Honor List) are awarded to full-time students on the basis of quality point average at the end of the trimester as follows:

Highest Honors	4.00
High Honors	3.50-3.99
Honors	3.00-3.49

SUMMARY OF GRADUATION REQUIREMENTS

1. A minimum of 128 trimester hours, including the satisfactory completion of all required courses, is necessary for graduation, together with a general quality point average of 2.0 for all courses in which grades other than P are given. Quality points are not computed for work done at other colleges or universities and only for courses taken at the college after 1931.

2. For students in the Teacher Education Curricula, the teaching ability of the student must be satisfactory to the Dean of Teacher Education regardless of other credits.

3. Students who have not paid all bills previously incurred shall not be permitted to re-enroll, to be graduated, or to have credits sent

to other institutions or to the Department of Education until such accounts have been paid. The records of such students are "Sealed" and no information will be given until cleared.

4. All credentials for graduation, including certificate application and transcripts of credits from other institutions, must be filed at times specified by the Registrar. If this requirement has not been met, graduation will be postponed.

5. Attendance at the commencement exercises is necessary, unless unusual circumstances warrant graduation in absentia. This permission is granted only through the President of the College.



STUDENT FEES AND EXPENSES

The cost of room, board and fees are fixed by the Secretary of Education of the Commonwealth upon recommendation of the Board of State College and University Directors. Student activity and related fees are fixed by the College President in accordance with policies established by the Board of State College and University Directors.

Changes in college fees may be made without notice.

ENROLLMENT FEE

The enrollment fee covers the cost of instruction, registration, the keeping of student records, library services, student welfare and health services (with the exception of extra nurses and quarantine) and laboratory fees.

FULL-TIME STUDENTS:

For full-time students who are residents of the Commonwealth of Pennsylvania the enrollment fee is \$350.

Special curriculum fees to cover added instructional costs are:

Industrial Arts	\$18
Special Education	\$10
Speech Pathology and Audiology	\$10

PART-TIME STUDENTS:

Part-time students who are residents of the Commonwealth of Pennsylvania will pay \$29 per credit hour.

Special curriculum fees to cover added instructional costs are:

Industrial Arts	\$6 per session
Special Education	\$5 per session
Speech Pathology and Audiology	\$5 per session

The minimum charge for a part-time student is \$87 plus special fees.

OUT-OF-STATE STUDENTS:

Full-time students whose legal residence is outside the Commonwealth of Pennsylvania shall be charged at the rate of \$46 for each credit hour plus curriculum fees.

ROOM AND BOARD EXPENSES

The room and board expenses cover the cost of living in the college dormitory and of meals in the college dining hall. No reduction in these rates will be made for a student who absents himself from the dormitory or dining hall for several days at a time.

The cost of room and board for each trimester is \$304. Of this amount, \$160 is charged for room and \$144 is charged for meals.

Part-time students may arrange to live in the college dormitory and eat at the college dining hall on a weekly basis by paying \$19 per week.

STUDENT ACTIVITY FEE

Each student enrolled on a full-time basis shall be charged a Student Activity Fee of \$25 per trimester. Upon payment of this fee, the student becomes a member of the Student Activities Association, Incorporated. The fee covers admission to lectures and most entertainment sponsored by the association, admission to athletic contests, subscription to the college newspaper, and certain other activities as defined by the Student Activities Association Board.

Each part-time student is charged a \$5 Student Activities Fee.

Payment of this fee should be made to the Student Activities Association, Incorporated. This fee is payable on the date established by the college as the due date for registration fees.

REGISTRATION AND THE BILLING OF FEES

At announced times preceding the beginning of each new trimester or session, the college holds scheduling and registration sessions. All students planning to attend classes during the next trimester are expected to plan a schedule with an adviser's assistance and to complete the registration forms. Students are billed for fees which are due as soon as registration is completed and the student is expected to pay on or before the announced due date.

LATE REGISTRATION FEE

Each student who enrolls after the date officially set for registration will be charged an additional enrollment fee of \$10.

SPECIAL FEES

When the college provides some service for the student not covered by the Enrollment Fee or the Student Activities Fee, a special fee may be charged.

DAMAGE FEE: Students shall be held for damage, breakage, or loss and the return of college property.

INFIRMARY FEE: A boarding student who is ill is entitled to three days of infirmary service without charge. After that time, there will be a charge of \$1 per day for infirmary service.

Commuting students admitted to the infirmary are charged \$3 per day from the time of admission. This fee covers board and nursing service in the infirmary.

In no case does the infirmary fee include special nursing care or medical service.

DEGREE FEE: A fee of \$5 must be paid by each candidate for a degree from California State College. A student shall not be permitted to complete graduation from the college until this fee has been paid. The fee is payable when the student has been notified by the Registrar that he is cleared for graduation.

STUDENT CENTER FEE: A student center fee of \$10 is collected from all students at each registration. These funds are collected for the Commonwealth to be used for the amortization of the cost of the Student Center and its equipment.

PAYMENT OF BILLS

The Enrollment Fees, the Room and Board Fees, and the Special Fees must be paid at the College Business Office. Upon payment, an official Revenue Receipt will be given to the student. Payment by check, bank draft, Express or Post Office Money Order made payable to the Commonwealth of Pennsylvania in the exact amount of the fees is required.

The Student Activity Fee must be paid on due date at the Office of the Student Activities Association. Upon payment of the fee, an official Activities Receipt will be given the student. Payment by check, bank draft, Express or Post Office Money Order made payable to the Student Activities Association, Incorporated, in the exact amount of the fee is required.

DELINQUENT ACCOUNTS

All fees are payable in advance. No student may be enrolled or graduated, or receive trimester grade reports or receive a transcript of his record until all previous bills and fees have been paid.

REFUNDS

Partial refunds, or credit, will be granted to students who have made an official withdrawal from college. They will be based upon a percentage of the fees paid according to a schedule of weeks attended.

Fund policies and procedures are:

1. A refund, or credit, will not be allowed unless the withdrawal is properly made through the registrar's office. The date of notification will be considered the effective date of withdrawal.
2. No refunds, or credit, will be allowed for those who register and pay fees as full-time students and voluntarily reduce the number of credits scheduled to less than twelve (12) credits.
3. Full refunds will be granted upon request to students who have been dismissed from college for academic reasons.
4. Refunds are not granted on an automatic basis. A student eligible for a refund must submit a written request to the President without delay. No action will be taken until this has been done.

In order to withdraw from classes, dormitory, and dining hall, the student must first contact the proper college official. The officials to be contacted are as follows:

1. To withdraw from classes, contact the College Registrar.
2. To withdraw from the dormitory or dining room, contact the Vice President for Student Affairs.

Any other method of withdrawal cannot be approved and charges for room and board will remain intact.

COST OF BOOKS

The estimated cost of textbooks is \$50 to \$65 a trimester for students in the Elementary, Secondary, Special Education, and Arts & Sciences Curriculums. Students in the Industrial Arts Curriculum may expect to spend \$90 for the trimester in which they take Introductory Mechanical Drawing, and \$65 each succeeding trimester. Students may purchase books, materials and other supplies through the College Book Store on a cash basis.

SUMMARY OF FEES

Dormitory students per trimester, Pennsylvania residents, full-time:

	<i>Non-Specialized</i>	<i>Industrial Arts</i>	<i>Speech Pathology & Audiology Special Ed.</i>
Enrollment Fee	\$350	\$368	\$360
Room and Board	\$304	\$304	\$304
Activity Fee	\$ 25	\$ 25	\$ 25
Student Center Fee	\$ 10	\$ 10	\$ 10
Total	\$689	\$707	\$699

Commuting students per trimester, Pennsylvania residents, full-time:

	<i>Non-Specialized</i>	<i>Industrial Arts</i>	<i>Speech Pathology & Audiology Special Ed.</i>
Enrollment Fee	\$350	\$368	\$360
Activity Fee	\$ 25	\$ 25	\$ 25
Student Center Fee	\$ 10	\$ 10	\$ 10
Total	\$385	\$403	\$395

Commuting students per trimester, Pennsylvania residents, full-time, eating in Dining Hall:

	<i>Non-Specialized</i>	<i>Industrial Arts</i>	<i>Speech Pathology & Audiology Special Ed.</i>
Enrollment Fee	\$350	\$368	\$360
Dining Room (Board)	\$144	\$144	\$144
Activity Fee	\$ 25	\$ 25	\$ 25
Student Center Fee	\$ 10	\$ 10	\$ 10
Total	\$529	\$547	\$539

Part-time students:

\$29 per credit (minimum charge \$87) plus curriculum fee and activity fee.

Out-of-state students:

\$46 per credit plus curriculum fee and activity fee.



STUDENT AFFAIRS AND SERVICES

Services for students such as housing, food service, orientation, counseling and activities which are essentially non-academic in nature, are under the administration of the Vice President for Student Affairs.

The principal administrative officials responsible to the Vice President for Student Affairs are:

1. Dean of Men and his assistants
2. Dean of Women and her assistants
3. Director of Student Activities and staff members
4. Business Manager of the Student Activity Association
5. Director of Financial Aid and assistants
6. Director of Athletics
7. Director of Health Services

Students who need non-academic information, advice on general aspects of college life, or special help with personal problems should consult the appropriate person in the area of student affairs.

CAMPUS LIFE

A college student upon enrollment becomes a member of a special community. Although this community is organized primarily to support academic objectives, there are many opportunities for students to supplement their intellectual growth and to occupy their leisure time. Students who learn to budget their time wisely should be able to attain a satisfactory academic record and still participate in a variety of social and recreational activities outside the classroom.

COLLEGE AUTHORITY

The college has disciplinary authority over all of its students. Any student whose attitude and conduct is antagonistic, incompatible and disruptive to the program of the college and the purposes for which the college exists is subject to disciplinary action by the properly constituted officers of the college.

Disciplinary authority of the college includes but is not limited to the power to: admonish, warn, censure, place on probation, require restitution, suspend, expel, eject from premises and/or arrest by civil authorities.

The Commonwealth of Pennsylvania has the power to make and enforce laws and regulations which are essential to the establishment, maintenance, operation and preservation of the Commonwealth. California State College is owned, established, funded, staffed, operated and maintained by the Commonwealth of Pennsylvania and has the authority to make and establish rules and regulations designed to enable the college to carry out its purpose without disruption either by external or internal influences. Any student who is in violation of statutes, laws or regulations of the Commonwealth and/or regulations of California State College is subject to prosecution in the appropriate courts of the Commonwealth; and, furthermore, is subject to disciplinary action by the college, either or both as may be determined by the proper and duly constituted officers of the Commonwealth and/or the college.

COLLEGE REGULATIONS

1. Use of Alcoholic Beverages: The possession or use of alcoholic beverages on college property is prohibited. Students are reminded that Pennsylvania law prohibits the use or possession of alcoholic beverages by those under twenty-one (21) years of age.
2. Gambling in any form is prohibited on campus and in college owned and supervised buildings.
3. College matriculation and identification cards are for personal use only. They are valid only for the term in which the student is enrolled. Falsification of these cards, or the transfer of one to another person is strictly prohibited. These restrictions also apply to dining hall and library cards.
4. Students and student organizations are not permitted to make any purchases in the name of the college or the Student Activities Association without written authorization of the proper officers of the respective organization. Those who fail to comply with this regulation are personally liable for the payment of the items purchased.
5. Smoking Regulations: Smoking is permitted in the dormitory rooms, faculty and staff offices, the lounges of commuters, the snack bar, and the firetowers. Use the fireproof containers that have been placed in these areas and exercise extreme care to prevent fires. Smoking is prohibited in all classrooms, shops and laboratories, all corridors in South Hall, Main Hall, Dixon Hall, Lobby, J. Albert Reed Library, Steele Auditorium, the Little Theatre and other areas as posted.

6. Men and women students may not visit each other in their respective living quarters except during specially arranged visitation programs. Such programs must be approved in advance by the Dean of Men and the Dean of Women. Any exception to this regulation must be authorized in writing in advance by the Dean of Men and/or the Dean of Women.
7. The possession or use of firearms, firecrackers, or other explosives on campus or in student living quarters is prohibited.
8. Tampering with fire equipment and setting off a false alarm are prohibited.
9. Unlawful entry to any college building and the theft and/or destruction of any college property are prohibited.
10. Students who participate in any demonstration which is disorderly, riotous, destructive and disruptive are subject to legal action by the Commonwealth, the local government, and the college; and disciplinary action by the college as may be determined by the officers of the institutions concerned.
11. A notice to a student requesting the student to report to a faculty member or an administrative official has priority over any other activity and requires compliance on the date, day and time indicated; or the student must contact the faculty member or administrative official before that date, day and time indicated to arrange rescheduling of the conference.
12. Any person on California State College premises or in buildings supervised by the college is required to produce self-identification upon the request of a faculty member, administrative official, or employee of the security force.
13. Any student who possesses or sells or uses any drug or medicine including narcotics such as heroin and marijuana, etc., the issuance of which is controlled by prescription, is subject to disciplinary action by the college and legal action by the civil authorities unless such drug or medicine is secured through regular procedures and channels as required by the statutes of the Commonwealth of Pennsylvania.

STUDENT RIGHTS

As a citizen in this constitutional democracy every student has a right:

1. To equal protection of laws and equal justice in the courts;
2. To be free from arbitrary search and arrest; and

3. To have legal counsel and a prompt trial if accused of crime or malfeasance.

While you are a member of this college community you may have a personal problem which falls within the area of these constitutional safeguards.

The Personnel Deans are available to help you with such problems. They are interested in preserving your rights and they are interested in your assuming the responsibilities which go with those rights.

The Personnel Deans also are available to help you when and if you are arrested and/or accused of violations of laws and regulations.

THE STUDENT ACTIVITY PROGRAM

A well-rounded program of student activities, supervised by faculty sponsors and administered by a Director of Student Activities, provides numerous opportunities for valuable co-curricular experiences. In addition to intramural and inter-collegiate athletics, the activity program includes a variety of subject-related, special interest, social and professional organizations.

These activities are supported by an activity fee which is paid by each student for each term he is enrolled. This is an official fee approved by the college and must be paid.

Activity funds are collected, budgeted, appropriated, disbursed and accounted for by the Student Activities Association, Inc. They are audited by the Office of Auditor General of the Commonwealth of Pennsylvania.

STUDENT CONGRESS

Student Congress is the official agency which represents and serves the student body. It provides channels for communicating student ideas, suggestions, and opinions; facilitates the planning and implementation of activities and programs to enrich campus life; and creates opportunities for experience in assuming and exercising responsibility.

SOCIAL FRATERNITIES AND SORORITIES

Fraternities and sororities operate under the jurisdiction of their respective governing councils, the Interfraternity Council and the Pan Hellenic Council. They are subject to college authority and regulations.

COMMUNITY CHURCHES

There are churches of the following denominations in California: Baptist, Christian, Methodist, Nazarene, Presbyterian, Roman Catholic, and Russian Orthodox. Other religious denominations have churches in nearby communities.

Students are encouraged, but not required, to participate in religious activities of their own choosing.

A campus ministry program has been started and is being developed. Details are available through the office of the Dean of Men and Dean of Women.

HEALTH SERVICES

PURPOSES OF THE HEALTH SERVICE PROGRAM

In the interests of student welfare, the college maintains an infirmary to provide emergency first aid treatment for its students.

GENERAL INFIRMARY PROCEDURES

Students who become ill or who have been injured will be taken, if possible, to the college infirmary.

Students who leave campus because of illness or injury will report to the college nurse for clearance to leave, and again report upon their return to receive permission to re-enter classes and dormitories.

GENERAL INFIRMARY SERVICE

California State College does not collect a Health Service Fee from its students. Therefore, free, unlimited medical service cannot be offered to the student body. However, the college does provide limited infirmary and nursing service for resident students and emergency infirmary service for all students subject to the conditions listed below.

INFIRMARY SERVICE FOR DORMITORY STUDENTS

Limited infirmary service is provided for students who reside in all college owned and college supervised dormitories. Free service is limited to three days, after which a charge of \$1 per day is made. Fees for a physician, special nursing care, and the cost of prescription drugs must be paid by the student.

TEMPORARY OCCUPANCY OF THE INFIRMARY

Student patients, dormitory or non-dormitory, who are unable to return to classes promptly—but in the doctor's judgment can be moved

with safety—will be discharged from the infirmary and advised to return to their homes.

DOCTOR'S FEES AND AMBULANCE FEES

The college provides no free medical service by a physician. Fees for office, house, or infirmary calls by any physician must be paid to him by the patient. If ambulance service is necessary, fees must be paid by the patient to the ambulance service.

HEALTH AND ACCIDENT INSURANCE

Parents and/or students may wish to carry insurance against accident and injury while the students are at college.

Information concerning the availability of such insurance can be secured by writing to the Office of the Vice President of Student Affairs.

CHRONIC DISEASES

Students suffering from chronic disease will be interviewed periodically by the college physician to determine the nature of treatment in progress and examined, if necessary, to determine the status of the disease.

The college may dismiss, or deny admission to any student whose health would be detrimental to other college students.

STUDENT HOUSING

College housing has been established to provide safe, comfortable housing for students in an atmosphere conducive to study, relaxation and congenial student relationships.

There are dormitories which house about six hundred fifty (650) men and three others which house about seven hundred twenty-five (725) women. These six dormitories are owned by the state and supervised by the college. They are centrally located on the campus and are within easy walking distance of the other buildings.

All entering freshman students except those who commute from their homes are required to reside in the campus dormitories, and each dormitory student is required to accept assignment to the dining hall. This dining hall assignment entitles the student to three meals per day seven days per week.

Upper class students may live where they wish, but they must make formal application to the Director of Housing, Office of Student Affairs, Room 233—Administration Building, California State

College, California, Pennsylvania 15419, if they wish to secure accommodations in the campus dormitories.

APPLICATION FOR HOUSING

Entering freshman students who indicate that they need housing in the residence halls on campus will be notified as to how to apply for the housing at the same time they are notified that they have been accepted for admission, or shortly thereafter.

Upper class students must contact the Director of Housing either by mail or in person and make formal application as directed.

DINING FACILITIES

GENERAL REGULATIONS

1. Dining Hall cards are for personal use only. They are not to be loaned, or sold, to anyone.
2. If a Dining Hall card has been lost or stolen, the loss should be reported immediately to the Dining Hall Manager.
3. Students living off-campus may request assignments to the college dining room. Such assignments are made for one full trimester and may be terminated only for exceptionally urgent reasons. Students in any category who take their meals in the dining room are subject to all dining room regulations.

DORMITORY AND DINING HALL FEES

These fees are subject to change. Current information can be secured by writing to the Vice President of Student Affairs.

WITHDRAWALS FROM A DORMITORY AND/OR DINING ROOM

When a student accepts a dormitory assignment, he enters into a contract. Withdrawals from a dormitory and/or dining room during a trimester are permitted only for exceptionally urgent reasons such as: illness, injury, severe financial hardship, or an approved withdrawal from college. (Requests to commute, live in town or in a fraternity house are not considered urgent reasons.)

Credit for the unused portion of the housing and dining room fees will be given only exceptional cases as listed above. Requests for credit or refunds must be presented in writing to the Vice President of Student Affairs. These requests will be submitted to the College President and the Board of Trustees for final approval. Credit will not be given or refunds made if this procedure is ignored.

STUDENT FINANCIAL AID

Students who lack sufficient funds to meet minimum college expenses should consult the Director or Associate Director of Financial Aid in the Administration Building, Room 105. Assistance is available in the form of part-time employment, grants, and loans.

ELIGIBILITY

While eligibility requirements vary according to the type of financial assistance, the following statements generally apply as basic requirements for all applicants:

1. An applicant must be enrolled, or accepted for enrollment, as a full-time, undergraduate student.
2. Evidence of financial need must be provided by the student. Incomplete applications will not be reviewed.
3. Applicants must be in good academic standing. In cases of extreme financial hardship, exceptions may be made by the Director.
4. Applicants must be citizens of the United States, or declare their intentions to become citizens.

HOW TO APPLY FOR FINANCIAL AID

1. Obtain an application from the Office of Financial Aid. Complete this application and return it to the Director's office: Administration Building, Room 105, California State College, California, Pennsylvania 15419.
2. File a Parent's Confidential Statement with the College Scholarship Service, Box 176, Princeton, New Jersey. (Note: This form may be obtained by the applicant at his secondary school or from the Director of Financial Aid.)
3. Applicants are required to inform the Director of Financial Aid of any financial assistance from sources other than California State College.

APPLICATION DEADLINES

1. Applications for the Summer and Fall Trimester—due March 1.
2. Applications for the Spring Trimester—due July 1.
3. Late applications will be considered only to the extent that funds are available.

GENERAL CONDITIONS OF FINANCIAL AID

All recipients of financial aid are required to comply with the following conditions:

1. Funds must be used only for the payment of expenses directly related to college attendance.
2. Financial assistance may be terminated for (a) an unsatisfactory academic record, and (b) unsatisfactory conduct.
3. Financial assistance will be automatically terminated if the recipient withdraws from college.
4. Financial assistance may not be given to or may be withdrawn when a student is placed on disciplinary probation. Reinstatement of financial assistance will depend upon the recommendation of the Student Financial Aid Committee.

Note: Additional conditions may be required depending upon the specific type of financial aid granted.

RENEWAL OF FINANCIAL AID

1. A Parents' Confidential Statement must be filed annually before the deadline established by the college.
 - (a) This is necessary whether or not the Statement had been filed previously.
 - (b) Students are responsible for keeping these annual statements up-to-date.
2. Renewals will be made on the basis of financial need, continued eligibility of the student, and compliance with regulations and guidelines related to the various programs.

TYPES OF FINANCIAL AID

I. Student Employment:

The college maintains two separate employment programs for students. Work opportunities in either program depend upon the funds allocated, the student's availability for employment, personal qualifications, and willingness to work.

Applicants must be enrolled, or accepted for enrollment as full-time students. Employment of full-time students cannot exceed 15 hours per week.

A. Federal Work-Study Program:

1. Preference for employment in this program must be given to students from low-income families.

2. Applicants must be in good academic standing as determined by the college.
3. Eligible students may be employed at the college or in approved projects off-campus.

B. Commonwealth Employment Program:

1. Applicants are not required to qualify according to the federal guidelines on "Financial Aid."
2. Applicants must be in good academic standing as determined by the college.

II. Scholarship Aid:

A. PHEAA Scholarships:

Scholarship awards are available to residents of Pennsylvania who need financial assistance to attain an education. All awards are based upon academic potential and a need for financial assistance as determined by the Agency. Further information may be obtained from the Director of Financial Aid or from the Pennsylvania Higher Education Assistance Agency, 219 Towne House, Harrisburg, Pennsylvania 17102.

B. Educational Opportunity Grants:

Federal grants ranging from \$200 to \$1000 per academic year are available for exceptionally needy students who require assistance in order to attend college.

III. Student Loans:

- A. National Defense Student Loans are long-term loans in which the student assumes an obligation to repay the amount borrowed at 3 per cent interest. Those who teach may have up to one-half of the loan cancelled at the rate of 10 per cent for each year of teaching. Teachers in certain eligible schools (as defined by Health, Education, and Welfare) located in areas of primarily low-income families may qualify for cancellation of their entire obligation at the rate of 15 per cent per year. In addition, a full-time teacher of handicapped children in a public or non-profit, private elementary or secondary school may have their obligation cancelled at the rate of 15 per cent per year.
- B. PHEAA Guaranty Loans are long-term loans available to residents of Pennsylvania. The maximum loan for a full-time student is \$1500 per academic year not to exceed a total indebtedness of \$7500.

Repayment of the principal of the loan is not required until the student leaves or graduates from college. The federal government will generally pay the interest on behalf of the student while enrolled in college.

Applications may be obtained from a participating lending institution in or near the student's home community. Ask for a PHEAA Guaranty Loan application.

C. Student Loan Fund:

The Alumni Association has a fund to provide short-term, emergency loans to students in good academic standing.

IV. College Scholarship Service:

California State College participates in the College Scholarship Service (CSS) of the College Entrance Examination Board. As a participant the college subscribes to the principle that the amount of financial aid granted a student should be based primarily upon financial need. The college financial aid office will rely upon the assistance of CSS in determining a student's financial need.

Entering students seeking financial assistance are required to submit a copy of the Parents' Confidential Statement (PCS) form to the College Scholarship Service, designating California State College as one of the recipients, by March 1. The PCS form may be obtained from a secondary school or the College Scholarship, P.O. Box 176, Princeton, New Jersey 08540.



THE SCHOOL OF ARTS AND SCIENCES

California State College offers the Bachelor of Arts degree to students completing requirements of one of the Arts and Sciences programs. These range from broad based area programs to narrowly defined vocational and pre-professional majors; however, in every case the recently revised general studies program assures every student sufficient flexibility to select courses that meet his interests and needs.

ADMISSION TO ARTS AND SCIENCES

Any student admitted to the college is eligible for admission to the School of Arts and Sciences. The school's academic programs are designed to be particularly attractive to bright and creative students who are serious about education.

TRANSFER FROM ANOTHER COLLEGE

1. Students must meet the college admission standards and follow the procedures described on the preceding pages.
2. Transcripts will be evaluated by the Dean of Arts and Sciences before the transfer student first registers so that advanced standing credit can be assigned. It is the student's responsibility to see that all transcripts are forwarded to the college.

ADVISEMENT

Each student in Arts and Sciences is assigned to a personal advisor in his major field. He will be given a great deal of freedom to plan his own program; the responsibility for meeting graduation requirements is his and his alone. In many major programs students are permitted to elect courses only with the approval of an advisor. The Dean of Arts and Sciences supervises advisement and provides assistance to all students. Information may be obtained by writing to the Dean of Arts and Sciences.

THE CURRICULUM IN ARTS AND SCIENCES

GENERAL EDUCATION

The recently revised general education program permits all students to exercise a great deal of freedom. The sixty semester hours reserved for general education are distributed as follows. Each stu-

dent must take at least ten semester hours in each of the following three areas:

Humanities (courses offered in the following disciplines: Art, English, Modern Foreign Languages, Music, Philosophy, Speech, Theatre)

Social Sciences (courses offered in the following disciplines: Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology)

Natural Sciences (courses offered in the following disciplines: Biology, Chemistry, Geology, Mathematics, Physics)

Detailed lists of these courses may be obtained from the Dean of Arts and Sciences.

In addition, each student must take thirty semester hours of free electives. Students are urged to use their freedom to elect courses wisely and responsibly. They should learn as much as possible about the college's course offerings, and select those courses that will benefit them most.

UPPER DIVISION REQUIREMENTS

In addition to the general education program, each student must complete a sixty-eight semester hour upper division program.

He may elect an area of concentration program (with a field of specialization) or he may elect a major.

AREA OF CONCENTRATION

A student may elect one of the following area programs:

Humanities	American Studies
Social Sciences	Environmental Studies
Natural Sciences	Slavic Studies
Administration	Urban Studies

MAJOR PROGRAMS

Typically, a major program consists of a thirty-six semester hour major and thirty-two semester hours of related courses. For detailed descriptions of any program students should write to the Dean of Arts and Sciences or to the appropriate department.

The following programs have provisional approval, subject to review in the 1971-72 academic year:

Anthropology
Biology
Chemistry
English
French
Geography
Geology (field of specialization only)
German
History
Mathematics
Medical Technology
Outdoor Recreation and Conservation
Philosophy
Political Science (with or without International Relations
emphasis)
Physics
Psychology
Social Work
Sociology
Spanish
Speech Communications (with any of the following empha-
ses: General, Discussion and Con-
ference, Media, Oral Interpreta-
tion, Public Address)
Theatre
Urban Recreation and Park Administration

All programs are undergoing continuing re-examination and are subject to change that may not be immediately reflected in the published documents of the college.

INTERDISCIPLINARY COURSES AND PROGRAMS

The School of Arts and Sciences is actively encouraging the development of interdisciplinary courses and programs.

At present, the following courses are taught on an interdepartmental basis:

Arts and Humanities 101, 102
Related Arts
Culture and Technology

In addition the following programs are interdisciplinary and guided by interdepartmental committees:

Administration

American Studies

Environmental Studies

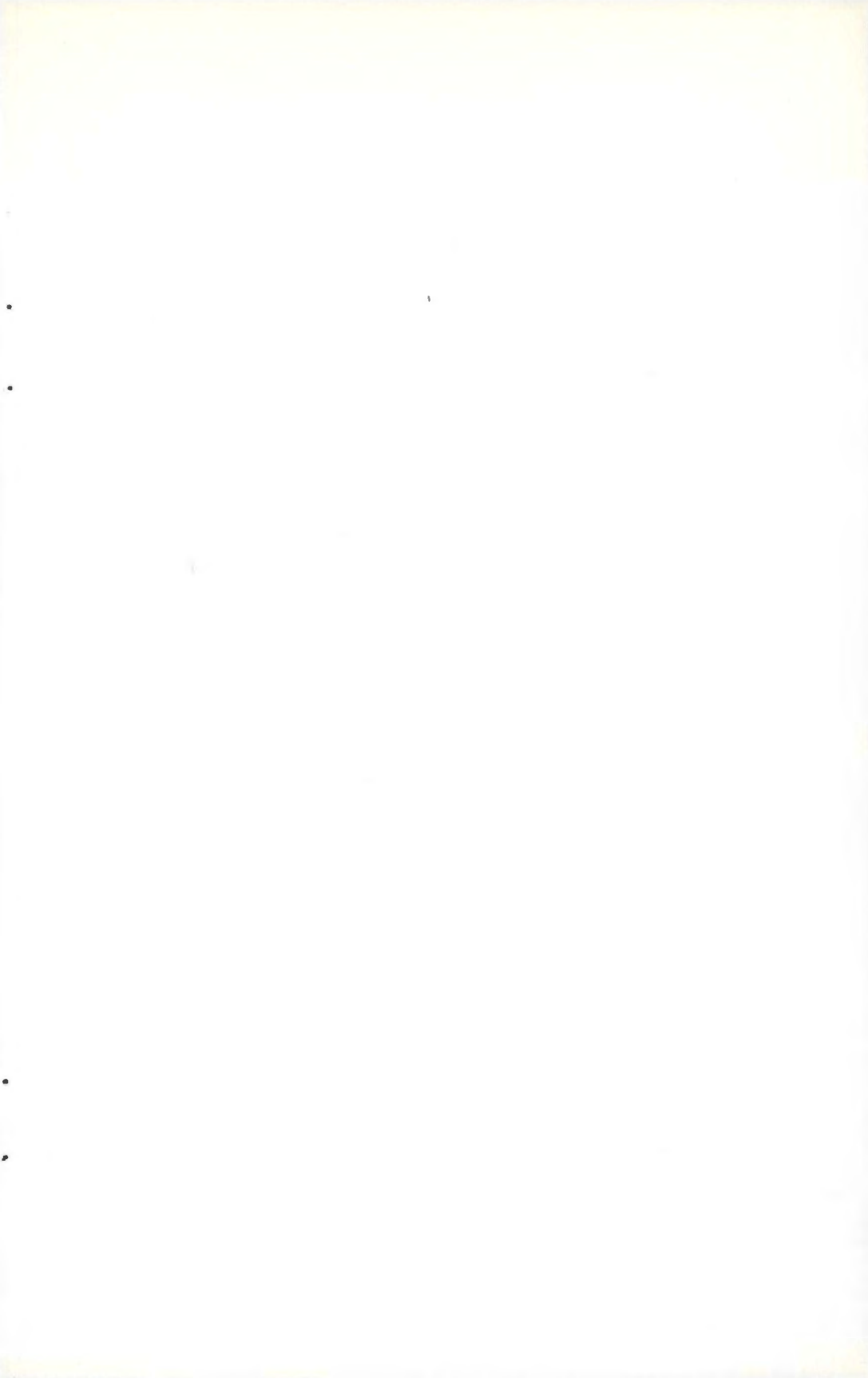
Urban Studies

Nature Conservation and Recreation

Slavic Studies

Urban Recreation and Park Administration

For information concerning these programs and other interdisciplinary programs being planned, contact the Associate Dean of Arts and Sciences and Director of Interdisciplinary Studies.





SCHOOL OF EDUCATION

California State College offers men and women preparing for the profession of teaching five curricula leading to the Degree of Bachelor of Science in Education: Secondary Education; Elementary Education; Industrial Arts Education; Special Education, Mental Retardation; and Speech Pathology and Audiology. All programs are fully accredited by the National Council for the Accreditation of Teacher Education.

ADMISSION TO TEACHER EDUCATION

Admission to California State College is not a guarantee that a student majoring in education will be permitted to complete the program (which includes student teaching) and receive a teaching certificate. The School of Education has established standards that all education majors must meet in order to complete the regular Teaching Education Program. Some standards are embodied in the Admission to Teacher Education Program. A brief summary of the requirements follows:

1. A quality point average of 2.30 in major field. For students in the elementary curriculum, quality point average will be computed using elementary and professional education courses.
2. An overall average of 2.00 or must be in good academic standing.
3. Completion of at least 64 credits including transfer credits with a minimum of 12 credits in the major. (Secondary Education Teaching Area; Elementary Education; Industrial Arts; Special Education; Speech Pathology)
4. Recommendation of advisor or major department head.
5. Personal interview with and recommendation of a member of the Committee for Admission to Teacher Education.
6. Approval by the Committee for Admission to Teacher Education.

All of the above requirements are prerequisites to a student teaching assignment.

PROFESSIONAL LABORATORY EXPERIENCES

To supplement the classroom preparation for teaching, a program of experiences in teacher-related activities is provided and becomes a part of the college record of each student. With the cooperation of faculty members who teach selected professional education courses,

each student maintains a record of campus or off-campus activities in church or community, business or industry, or recreation or camp work. Each record is then examined from time to time as basis for the evaluation of student growth. Laboratory experience records are filed with the Associate Dean of Teacher Education and are used in the program of Admission to Teacher Education.

"Pre-student teaching" experiences are provided for Secondary Education majors through the courses, "Problems of Secondary Education," "Introduction to Guidance," "Tests and Measurements," and "Secondary School Curriculum." In all of these, the student is required to participate in off-campus activities for approximately two hours per day, one day per week, for a nine-week period.

Elementary Education majors have pre-student teaching activities in the Professional Trimester.

Special Education majors have a Junior Year Practicum.

Speech Pathology majors have a Junior Year Clinical experience.

The program of pre-student teaching experiences in industrial arts is under development.

Many organizations provide co-curricular opportunities in the general area of athletics, dramatics, forensics, journalism, student government, music and recreation. A complete list of such organizations is available in the student handbook and a student is guided to his area of special interest throughout the orientation program. Student activities are considered an adjunct to the academic program and not a substitute for it. Participation in activities with children or youth (STARS, VISTA, neighborhood recreation, YMCA, YWCA, CYO, YMHA, etc.) is specifically encouraged.

STUDENT TEACHING

Student teaching, a major professional laboratory experience, is conducted under the supervision of the Director of Student Teaching. Students who are candidates for certification are required to earn twelve trimester hours of credit in Student Teaching. For regular students this assignment covers the entire trimester of sixteen weeks. The student teacher also carries a two-credit hour Practicum while fulfilling his student teaching requirement. The work is carried on in the Noss Laboratory School and in selected public schools located in the service area of the college.

Applications for student teaching are secured at the time of the students' interview for admission to teacher education. They are filed in the office of the Director of Student Teaching. Interviews for student teaching assignments are held each November and March.

Before a student may be assigned to this vital part of the Teacher Education Curriculum, he must (a) be admitted to Teacher Education, (b) have an overall quality point average of 2.0, (c) be approved as having satisfactorily completed the required preparatory work.

Students will not be assigned to Student Teaching until they have completed at least one trimester's work in this college. Graduates of other colleges must meet the requirements of Admission to Student Teaching before being assigned to Student Teaching.

STUDENT TEACHING FOR EXPERIENCED TEACHERS

Teachers who hold any teaching certificate below the level of the Instructional I Certificate and who have had three or more years of teaching experience, may be permitted to complete the Student Teaching requirement by special arrangement in consultation with the Dean of Teacher Education. The Dean of Teacher Education may allow the student to fulfill the student teaching requirement for the Bachelor of Science Degree in Education by making a substitute requirement in keeping with the needs of the individual student.

THE PROFESSIONAL TRIMESTER

The Professional Trimester is a program designed by the staff of the Department of Elementary Education. It is a block of method courses in elementary education which are:

Teaching of Reading	3 credits
Teaching of Language Arts	2 credits
Arithmetic Content and Method	3 credits
Teaching of Social Studies	3 credits
Science in the Elementary School	3 credits

The Professional Trimester is scheduled prior to the student teaching program and is arranged through conference with the Head of the Department of Elementary Education. Goals of this program are:

1. To group methods courses into more meaningful units.
2. To help identify the prospective teacher as an elementary educator.
3. To provide opportunities for the faculty to teach cooperatively.
4. To provide pre-student teaching experience for students.

NOSS LABORATORY SCHOOL

The Noss Laboratory School is located in the middle of the campus and has an enrollment of approximately two-hundred children from kindergarten through grade six. It is here, primarily, that college students have an opportunity to observe master teachers creating a fine learning environment for children and student teaching.

The Children's Book Collection is housed in the Noss Library, and the program provided by the librarian for the children is outstanding. The students of the college also are privileged to make use of this collection.

California State College currently has under construction a new building to replace the Noss Laboratory School. The school is a part of the new Learning Research Center, and the target date for opening is September, 1973.

CERTIFICATION OF TEACHERS

INSTRUCTIONAL CERTIFICATE (LEVEL I)

Students who receive the Bachelor of Science Degree in Education after completing a teacher preparation curriculum of this college will be granted an Instructional Certificate (Level I), which is issued by the Department of Education. The certificate, for which application must be made, must be issued before graduates may teach in public schools of Pennsylvania.

This certificate, not to be confused with the diploma issued at graduation, is valid for three years from the date of issuance. It indicates the subject or subjects and the field in which the holder meets the requirements established by the State Board of Education.

The Associate Dean of the School of Education will confer with persons who wish to have an Instructional Certificate (Level I) extended to include instruction in additional subjects.

CONTINUING CERTIFICATION

An Instructional II Certificate will be issued by the Pennsylvania Department of Education to an applicant who has completed three years of satisfactory teaching on an Instructional I Certificate and who has completed twenty-four semester credit hours of post-baccalaureate or graduate study at a regionally accredited institution. In addition, the applicant must have received the recommendation of the superintendent of the school district in which his most recent service was performed.

Six (6) of the twenty-four (24) semester credit hours may be satisfied through in-service programs approved by the Secretary of

Education and conducted by a school district, or a group of school districts, in cooperation with a preparing institution.

INSTRUCTION III (PERMANENT)

The Instructional III Certificate shall be a permanent certificate issued to an applicant who shall have completed five (5) years of satisfactory teaching and shall have been granted a master's degree with emphasis in a subject or teaching area by a regionally accredited institution. In addition, the applicant shall have received the recommendation of the superintendent of the school district in which his most recent service was performed.

CITIZENSHIP REQUIREMENTS

For a student to be eligible for a teaching certificate, the student must present evidence of citizenship of the United States of America. If the student is not a citizen of the United States at the time of admission to the college, he is required to become a naturalized citizen before he may be granted a Teacher's Certificate.

CURRICULUM OFFERINGS

The college prepares teachers for certification in elementary education, secondary education, industrial arts, special education, and speech pathology and audiology. All of these fields are four-year curricula. In addition, the college offers degree programs for dental hygienists and public health nurses. Students in these programs transfer to the college after two or three years preparation at other institutions, then receive a California degree after completion of two more years of general and professional studies.

The curriculum patterns for each of the areas of preparation offered at California State College are outlined on succeeding pages.

THE ELEMENTARY EDUCATION CURRICULUM

Upon satisfactory completion of the requirements of the elementary education curriculum and upon the recommendation of the Dean of the School of Teacher Education, the student is awarded the degree of Bachelor of Science in Education and will be eligible for a Pennsylvania Instructional I Certificate issued by the State Department of Education. A summary of these requirements is given below:

A. General Education	60 semester hours
1. Humanities	10
2. Social Sciences	10
3. Natural Sciences/Mathematics	10
4. Free Electives	30
B. Professional Education	25 credit hours
C. Elementary Education	24 credit hours
D. Area of Interest	10 credit hours

The area of interest is optional. For Elementary Education majors who choose not to have an area of interest these 19 credit hours become free electives.

Total Credit Hours 128

THE SECONDARY EDUCATION CURRICULUM

California State College offers eleven programs leading to certification in secondary school. These eleven include preparation to teach: Biology, Chemistry, Communication (Speech, Theater, English, Educational Media, and Reading Disabilities), Earth Science, English, Mathematics, Modern Foreign Language (French, German, Spanish), Physics and Comprehensive Social Studies (History, Economics, Political Science, Sociology, Psychology, Anthropology, Geography).

The number of credit hours required varies with each academic major. A summary of these requirements is given below:

A. General Education	60 semester hours
1. Humanities	10
2. Social Science	10
3. Natural Sciences/Mathematics	10
4. Free Electives	30
B. Academic Major	24-42 credit hours
C. Professional Education	*33 credit hours

* Includes 14 credit hours for Student Teaching and Practicum

THE INDUSTRIAL ARTS CURRICULUM

Upon satisfactory completion of the requirements of the industrial arts curriculum and upon the recommendation of the Dean of the School of Teacher Education, the student is awarded the degree of Bachelor of Science in Education and is eligible for the Pennsylvania College "Instructional I" Certificate issued by the State Department of Education. A summary of these requirements is given below:

A. General Education		57 credit hours
1. Humanities	10	
2. Social Science	10	
3. Natural Sciences/Mathematics	10	
4. Free Electives	27	
B. Professional Education		*26 credit hours
* Includes 14 credits for Student Teaching and Practicum		
C. Major Field		45 credit hours

THE SPECIAL EDUCATION—MENTAL RETARDATION CURRICULUM

Upon satisfactory completion of the requirements of the Special Education Mental Retardation Curriculum as outlined below and upon the recommendation of the Dean of the School of Teacher Education, the student is awarded the degree of Bachelor of Science in Education and is eligible for a Pennsylvania College "Instructional I" Certificate in Special Education issued by the State Department of Education. Although the State Certificate is an "all grades" type, the college is giving each student the choice of selecting a curriculum pattern geared primarily to either the elementary or the secondary school teaching situation.

The summary of graduation requirements is given below for both the elementary and the secondary emphasis:

A. General Education		61 credit hours
1. Humanities	22	
2. Sciences and Mathematics	16	
3. Social Sciences	18	
4. Health and Physical Education	5	
B. Professional Education		43 credit hours
C. Major Field		26 credit hours

THE SPEECH PATHOLOGY AND AUDIOLOGY CURRICULUM

Upon satisfactory completion of the requirements of the speech pathology and audiology curriculum and upon the recommendation of the Dean of the School of Teacher Education, the student is awarded the degree of Bachelor of Science in Education and is eligible for a Pennsylvania College "Instructional I" Certificate in Special Education issued by the State Department of Education.

The summary of graduation requirements is given below, with detail on succeeding pages:

A. General Education		60 credit hours
1. Humanities	10	
2. Social Science	10	
3. Natural Sciences/Mathematics	10	
4. Free Electives	30	
B. Professional Education		23 credit hours
C. Major Field		45 credit hours

SPECIAL PROGRAM IN HIGHWAY SAFETY AND DRIVER'S EDUCATION

California State College offers a certificate endorsement program in this field. Persons holding a valid Pennsylvania teaching certificate may have Highway Safety/Driver's Education added to their certification upon completion of 12 credit hours in designated courses.

DENTAL HYGIENIST PROGRAM

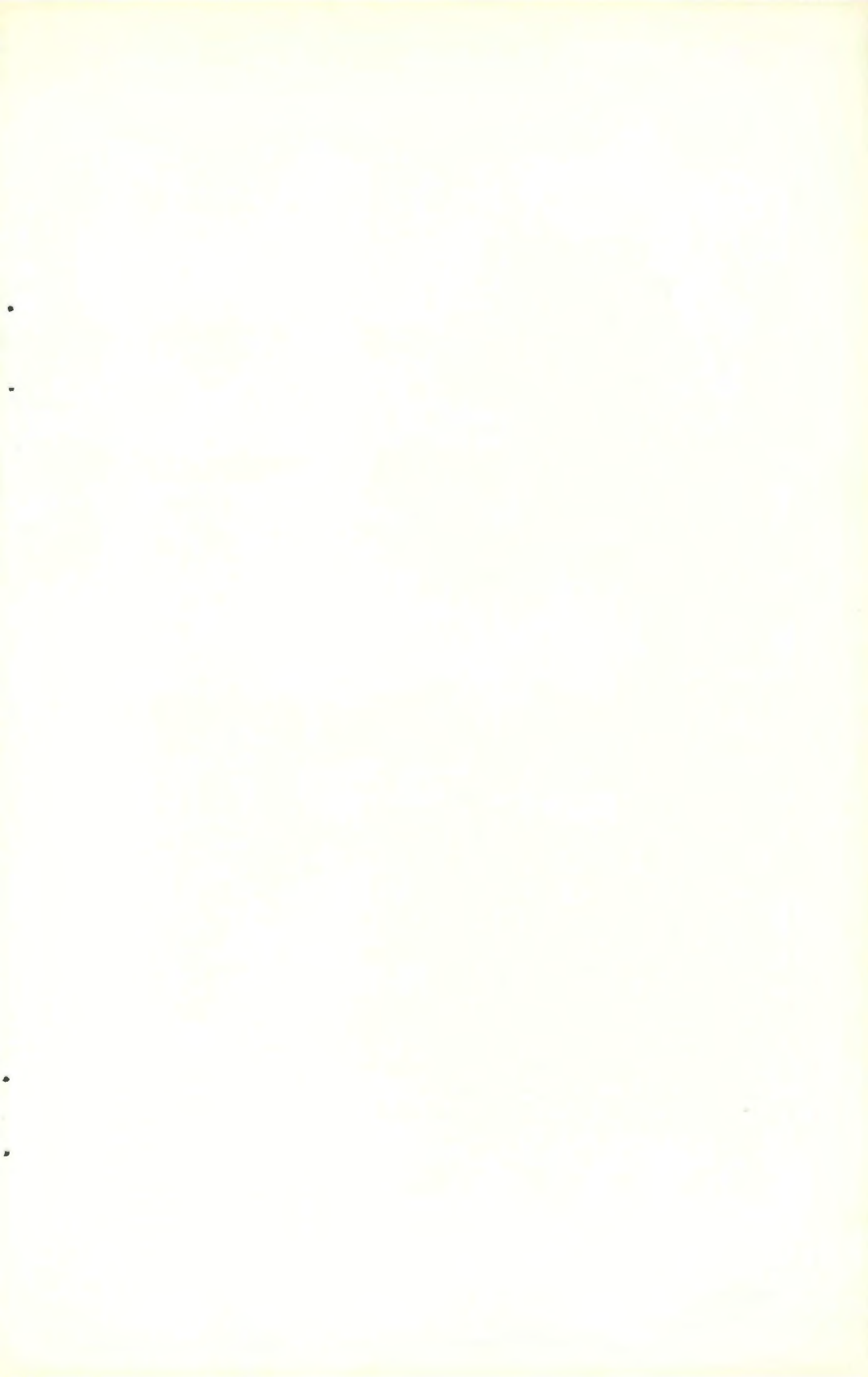
This program is open to persons holding a valid license to practice Dental Hygiene in the Commonwealth of Pennsylvania. California State College grants a maximum of 80 credits for completion of the dental hygienist portion of this curriculum. Forty-eight additional credits are required to earn a Bachelor of Science in Education degree and certification as a public school nurse. A summary of the requirements is given below:

A. General Education		36 credit hours
1. Humanities	9	
2. Social Science	9	
3. Free Electives	18	
B. Professional Education		12 credit hours

PUBLIC SCHOOL NURSING PROGRAM

This program is designed for persons who have completed an approved nursing program and are registered nurses. California State College grants a total of 68 credits for completion of the R.N. Sixty additional credits are required in order to earn a Bachelor of Science degree in Education and certification as a Public School Nurse. A summary of the requirements is given below:

A. General Education		36 credit hours
1. Humanities	9	
2. Social Science	9	
3. Free Electives	18	
B. Public School Nursing		*12 credit hours
* Includes Sociology or Social Case		
C. Professional Education		12 credit hours





DEPARTMENTAL COURSE OFFERINGS

ART DEPARTMENT

Art 201 INTRODUCTION TO ART, 2 credits

A comparison and analysis of the major trends and styles in art from prehistory through the 20th century. Emphasis is placed on the historical relevancy of art to our present society.

Two class hours per week.

Art 205 CREATIVE ART ACTIVITIES I, 3 credits

A course designed to assist students in understanding and developing the visual perception and creative potential of children in kindergarten through fourth grade. This course is designed for students with some background in art.

Four class hours per week.

Art 206 CREATIVE ART ACTIVITIES II, 3 credits

A study of perceptual growth and the development of new art skills in grades five through eight. This course is designed for students with some background in art.

Four class hours per week.

Art 232 SCULPTURE, 3 credits

The development of perception and projection in creating three dimensional forms using basic concepts, materials, and processes.

Four class hours per week.

Art 235 WEAVING, 3 credits

An introduction to weaving, dyeing and printing on fabrics. Materials and processes will be explored and related to decorative design.

Four class hours per week.

Art 305 ART EDUCATION WORKSHOP, 3 credits

A special problems course designed to meet the individual interests of students; includes program planning, observations and evaluation of elementary, middle school and secondary art programs.

Four class hours per week.

Art 311 CRAFTS, 3 credits

An exploration of a number of materials in creating three dimensional objects. This course stresses the practical application of new materials and processes in creating art forms.

Four class hours per week.

Art 318 EXPERIMENTAL PROGRAMS IN THE TEACHING OF ART, 3 credits

The course is designed to place the student in direct contact with children and their art. The class will use local elementary schools for observing, teaching and developing courses of study. The department is also setting up a Saturday morning children's workshop to initiate and test experimental programs.

Four class hours per week.

Art 320 DRAWING, 3 credits

The development of graphic skills through an analysis of material and man-made forms. Experimentation with a variety of techniques and materials will be emphasized.

Four class hours per week.

Art 322 PAINTING, 3 credits

An introduction to the fundamentals of painting. Emphasis is placed on both pictorial representation and conceptual development in oil, watercolor and acrylics.

Four class hours per week.

Art 324 ADVANCED PAINTING, 3 credits

Individual development of style, technique and concepts in the development of personal expression in painting.

Four class hours per week.

Art 327 PRINTMAKING, 3 credits

A beginning course in the fundamental techniques of intaglio, relief and serigraphy. Composition and craftsmanship are stressed in the printing process.

Four class hours per week.

Art 403 DESIGN, 3 credits

An analysis of form, space and color through experiments in various media. This course examines those elements used in developing a visual composition.

Four class hours per week.

Art 420 RESEARCH IN ART EDUCATION, 2 credits

Statistical techniques used in art education. An analysis of art test and research in examining creative behavior.

Two class hours per week.

Mini-Courses, 1 credit. (pass-fail option), 15 class meetings

Art 241 THE ART OF AFRICA, 1 credit

An exploration of the social, political, and religious climate that dictated styles of traditional African art and a critical review of these styles.

15 class meetings.

Art 260 DESIGN (classroom), 1 credit

Basic design principles and their relationship to the creation of effective displays for the classroom and galleries.

15 class meetings.

Art 262 THE PAINTER'S EYE, 1 credit

A seminar on the paintings and philosophies of five contemporary artists. Emphasis will be placed on the creative process and how it evolved in the work of each artist.

15 class meetings.

Art 263 FABRICS (Batik and Tie Dyeing), 1 credit

An historical review of these two ancient processes with emphasis on the numerous methods of creating new fabric designs using the batik and tie-dyed processes.

Art 264 FABRICS (Applique), 1 credit

A short history of these processes and experimentation with techniques and materials.

15 class meetings.

Art 265 POP ART OR PUT ON, 1 credit

This seminar course is designed to explore current trends in art and discuss the relevancy of these styles and trends to our own social climate. Trips to galleries and museums.

15 class meetings.

Art 266 DRAWING AS VISUAL EXPRESSION, 1 credit

Problem solving and experimentation as methods of developing visual perception through drawing.

15 class meetings.

Art 267 EXPLORING MUSEUMS, 1 credit

A series of field trips to museums and galleries in Western Pennsylvania. Lectures will be given by museum directors, curators, and docents.

15 class meetings.

Art 272 WORKSHOP (Watercolor), 1 credit

Experimentation in painting utilizing watercolor techniques.

15 class meetings.

Art 273 WORKSHOP (Ceramics), 1 credit

An introduction to the construction, decoration, glazing, and firing of pottery. Construction techniques will include wheel throwing and hand building procedures. Two glazing techniques will be emphasized (raku and salt-glazing). Ceramics exhibits and pottery studios may be visited.

15 class meetings.

Art 274 WORKSHOP (Jewelry), 1 credit

This course stresses both original design and craftsmanship in the construction processes of decorative and functional jewelry.

15 class meetings.

BIOLOGICAL SCIENCE DEPARTMENT

GENERAL EDUCATION

GE 105 INTRODUCTORY BIOLOGY, 4 credits (for non-majors)

To provide the student with some of the basic principles of animal and plant biology with practical laboratory experience that will help provide him with an understanding of how research and experimentation is conducted by scientists. Emphasis is placed on his role in the biotic world in which he lives that will better prepare him to cope with problems of conservation, pollution, disease, drugs, over-population, etc. This biology course is considerably more advanced than any high school biology course in that microscopy and experimentation techniques are stressed and the student has a greater opportunity to do his own research into some of the problems listed above.

Three classes and one two hour laboratory weekly.

BIOLOGICAL SCIENCES

Biol 110 PRINCIPLES OF BIOLOGY, 4 credits

Emphasis is on structures and function common to all organisms: cell structure and function, the chemical aspects of biological systems, energy and materials balance in nature, developmental biology, principles of genetics, evolution, and ecology.

Three hours lecture and a two hour laboratory weekly.

Biol 111 BOTANY I, 3 credits

An analysis of the biology of plants, encompassing the origin of plant life on the Earth, the photosynthetic mechanism, modes of increasing structural complexity, the nature and meaning of sexuality, the nature of motility, and the evolutionary processes, especially as manifest in the algae and fungi.

Two hours lecture and one three hour laboratory weekly.

Biol 112 BOTANY II, 3 credits

The origin and evolution of the land flora emphasizing the origin of leaf, shoot, seed and flower in a progression of change from ferns and fern allies to the flowering plants.

Two hours lecture and one three hour laboratory weekly.

Biol 121 ZOOLOGY I, 3 credits

A comprehensive phylogenetic survey of the invertebrate animals with emphasis on evolutionary changes and relationship to man. Studies of representative members of the major phyla are made in the laboratory.

Prerequisites: Biology 110 completed or being taken concurrently.

Two hours lecture and one three hour laboratory weekly.

Biol 122 ZOOLOGY II, 3 credits

A comprehensive phylogenetic study of the animal Phylum Chordata with emphasis on the evolutionary changes and the interrelationship of the animal of the different classes with their environment.

Prerequisites: Biology 121 (if the student has not taken Biology 110 by this time, the student must take it concurrently with Biology 122.)

Two hours lecture and one three hour laboratory weekly.

Biol 201 COMPARATIVE VERTEBRATE ANATOMY, 3 credits

A comparative study of the organs and organ systems, primarily concentrating on the cat or rabbit with man. Other chordates are used as ancillary material.

Prerequisite: Biology 122.

Two hours lecture and one three hour laboratory weekly.

Biol 221 ANIMAL PHYSIOLOGY, 3 credits

The functions of the animal body. Basic physiological phenomena are studied with considerable emphasis upon practical application to the student's own life and well being.

Prerequisites: Biology 201 and Chemistry 101, 102.

Two hours lecture and one three hour laboratory weekly.

Biol 240 PLANT TAXONOMY, 3 credits

A study of the relationships among the flowering plant, and the ferns; their

classification and methods of identification. Ecology is stressed as it applies to Western Pennsylvania.

Prerequisites: Botany and Zoology.

Two hours lecture and one three hour laboratory weekly.

Biol 301 MICROBIOLOGY, 3 credits

A study of the bacteria and related organisms; their culture, morphology, identification, relationship to the disease process, and methods of public health and industry.

Two hours lecture and one three hour laboratory weekly.

Biol 301 MICROBIOLOGY, 3 credits (Med. Tech. majors)

A detailed study of bacteria and viruses will be undertaken with less emphasis on fungi, algae and protozoans. Special emphasis is given to the medical aspects of bacteriology and virology. The cytology, physiology, microbiology and culture of microbes is pursued in the laboratory.

Prerequisites: Biol 111, Biol 110, General Chem 101, 102 highly recommended.

Two hours lecture and one three hour laboratory weekly.

Biol 321 GENETICS, 3 credits

An introduction to the basic principles of inheritance. Discussions then follow of gene interactions, multiple-factor inheritance, chromosome mapping, chromosomal extrachromosomal inheritance. The roles of mutation, selection, migration, and genetic drift in determining the genetic composition of different populations of a species and the permanent establishment of genetically diverse populations through species formation.

Prerequisites: Botany and Zoology (under special arrangement).

Two hours lecture and one three hour laboratory weekly.

Biol 324 MOLECULAR GENETICS, 3 credits

A detailed account of how the relationship between nucleic acids and the proteins for which they code was determined. Also recent information and theories concerning gene control mechanisms, mutation mechanisms, genetic repair, and recombination in both procaryotic and eucaryotic cells.

Prerequisites: Biol 321 and Biol 301.

Two hours lecture and one three hour laboratory weekly.

(extra laboratory time will be essential occasionally.)

Biol 341 PLANT PHYSIOLOGY, 3 credits

Physio-chemical foundations of plant functions; water and salt absorption and translocation, photosynthesis, anabolic synthesis, respiration, correlations and growth factors, photoperiodism, and growth.

Prerequisites: Botany and Zoology.

Two hours lecture and one three hour laboratory weekly.

Biol 342 PLANT ANATOMY, 3 credits

A detailed study of structural differentiations, especially in the higher plants: the structure of meristems and developmental changes in their derivatives.

Prerequisites: Botany and Zoology.

Two hours lecture and one three hour laboratory weekly.

Biol 360 PARASITOLOGY, 3 credits

A study of the etiology, epidemiology, and biology of some common animal parasites.

Prerequisites: Zoology I and Zoology II.

Two hours lecture and one three hour laboratory weekly.

Biol 362 ENTOMOLOGY, 3 credits

A specialized study of the insects: identification and classification; development phases; physiological characteristics, economic importance; disease vectors.

Prerequisites: Botany and Zoology.

Two hours lecture and one three hour laboratory weekly.

(with occasional field trips.)

Biol 403 FOUNDATIONS OF BEHAVIOR, 3 credits

A survey of the anatomical and physiology basis of animal behavior together with a consideration of the techniques involved in behavioral analysis.

Prerequisites: A course in Introductory Biology, Botany, Zoology, or Psychology.

Two hours lecture and one three hour laboratory weekly.

Biol 410 EMBRYOLOGY, 3 credits

A study of oogenesis and spermatogenesis and resultant developments following fertilization; factors involved in morphogenic determination; organology; sequences of changes in development; special emphasis on the chick with comparative examples of development in other animals.

Prerequisites: A course in Introductory Biology, Botany, or Zoology.

Two hours lecture and one three hour laboratory weekly.

Biol 415 ANIMAL HISTOLOGY, 3 credits

The study of cellular differentiations in tissue; tissue identification and special functions, especially in the mammals.

Prerequisites: A course in Introductory Biology, Botany, or Zoology.

Two hours lecture and one three hour laboratory weekly.

Biol 416 CYTOLOGY, 3 credits

A detailed study of microscopic and sub-microscopic components of plant and animal cells with emphasis on the modern research of morphology and functions of various organelles, mitosis, meiosis, chromosomal basis of heredity, chromosomal aberrations in various organisms including human, special attention is also given to experimental cytology, cytological and cytogenetical theories, and cytological techniques.

Prerequisites: Biol 110, 111, 112, 121, 122.

Two hours lecture and one three hour laboratory weekly.

Biol 421 CONSERVATION OF BIOLOGICAL RESOURCES, 3 credits

A study of biological aspects with relation to plants and animals directly associated with water, soil, and environmental changes. Numerous field trips are taken into areas of Western Pennsylvania to observe land reclamation, conservation practices, and basic problems confronting human populations.

Two hours lecture and one four hour field trip are required weekly.

Biol 422 MYCOLOGY, 3 credits

An extensive examination of the fungi is undertaken with emphasis on the filamentous forms. The cytology, physiology, and morphology of the fungi is studied to determine their role in the scheme of nature. Techniques in isolating, culturing, enumerating, and identifying fungi will be pursued in the laboratory.

Prerequisites: Biol 110, 111, General Chem 1 and 2.

Microbiology is highly recommended.

Two hours lecture and one three hour laboratory weekly.

Biol 424 ECOSYSTEM ECOLOGY, 3 credits

An introductory study of the dynamics of the biological, physical, and mathematical relationships and interrelationships that procede within various ecosystems on the earth are considered in the course. Emphasis is placed on biogeochemical cycling, energy cycling, population dynamics, productivity, and pertinent problems concerning ecosystem deterioration. Both field and laboratory studies will be conducted concerning various processes operating within an ecosystem.

Prerequisites: Biol 111, 112, 121, 122 or special arrangement with instructor.

Offering: Once a year in the fall.

Suggestion: Can be taken as a separate introductory ecology course or can be preceded or followed by Biol 425, Communities Ecology in the spring trimester.

Three hours lecture and two hours of laboratory-field experience weekly.

Biol 425 BIOTIC COMMUNITIES, 3 credits

The principles of the structure and nature of various biotic communities are considered from the concrete stand to the bioms level. Factors which limit, maintain, and modify biotic assemblages are presented qualitatively and quantitatively from the local to the regional portions of the communities. Interrelationships between organisms and environment are covered in reference to the organisms, morphological, physiological, and behavioral adaptations. The dynamics of ecological succession are stressed illustrating the permanence of climax communities over geological time. Ecological techniques and methods to quantify and qualify the community will be pursued in the field and laboratory and through individual research problems and topics.

Prerequisites: Biol 111, 112, 121, 122 or special arrangement with instructor.

Offering: Once a year in the spring.

Three hours lecture and two hours of laboratory-field experience weekly.

Biol 430 RADIATION BIOLOGY, 3 credits

Biophysical processes involved in absorption of radiation by living systems. Production, properties, and measurement of ionizing radiations and radioisotopes, safety, biological effects, provides necessary background for special certification in adult education.

Two hours lecture and one three hour laboratory weekly.

Biol 431 PRACTICUM IN BIOLOGY I, 1-17 credits

A course designed to allow the student to acquire practical skills in biology under the intensive supervision of experts. Emphasis is, of course, on the laboratory skills acquired by the "apprenticeship" method.

Prerequisites: contact the Chairman of the Department of Biological Sciences.

The number of hours spent on the course per week is by arrangement.

Biol 432 PRACTICUM IN BIOLOGY II, 1-17 credits

This course is designed to be a follow-up to Biology 431.

Prerequisites: contact the Chairman of the Department of Biological Sciences.

The number of hours spent on the course per week is by arrangement.

Biol 481-483 INTRODUCTION TO RESEARCH, 1-3 credits

Given a problem in biology (or one of his own choice) the student will survey the literature, and organize a program that might lead to its solution and undertake a few experiments as time permits.

The number of hours spent on the course per week is by arrangement.

Biol 495 SEMINAR IN BIOLOGY, 2 credits

Roundtable discussions of selected topics in biology; reports from original literature both current and classical.

Prerequisites: Botany and Zoology.

Two hours lecture weekly.

EDUCATIONAL FOUNDATIONS DEPARTMENT

Ed 101 FOUNDATIONS OF EDUCATION, 3 credits

An examination of American history reveals that our educational system has always been a vital and significant part of our nation's growth and development. Because of our school's socially significant role in developing the intellectual, spiritual and physical resources of our people, the subject of education has always engaged the nation's best minds, beginning with Benjamin Franklin and Thomas Jefferson and continuing with Horace Mann, William James, and John Dewey. Thus, we may note that American education is an intellectually and socially significant area of human endeavor. The course is designed to contribute directly to the professional growth and development of the prospective teachers as well as serving as an introductory course for the Arts and Science student stressing the history, philosophy, and social perspective of the American education enterprise. Emphasis is also given to teaching as a profession as well as to the structure, administration and support of the system of public education at the local, state and federal levels. The student is encouraged to think critically and creatively. Thus, the purposes of this course are: (1) to orient the individual towards an understanding of the profession of teaching; (2) to provide an acquaintance with the foundations of education in our American way of life and, (3) to project into the future the primary role of American education as a part of international education.

Three class hours each week.

Ed 201 IMPLICATIONS OF BLACK THOUGHT FOR INNER-CITY TEACHING, 1 credit

A six weeks course designed to provide students in teacher education insight into the thoughts of Black writers on current social and educational issues. It may be described as a reading/discussion class emphasizing in the reading material such topics as the fairness of intelligence testing, Black language as a psychosociolinguistic system, the development of the Black child's self-concept in American society, and the influence of militant thinking on public education for Black children. The major course project will involve writing and editing

for E.D.C. mimeographed booklets dealing with the implications of Black thought for teaching Black children. Students in the class will evaluate (grade) each person's contribution to the course.

Ed 202 OBSERVATIONS IN THE INNER-CITY, 1 credit

Centers upon a three-day field trip in which teacher trainees and others observe classroom teaching situations in Pittsburgh schools. Two days are spent in schools. One day is spent visiting service and social agencies in the city.

Ed 203 WORKSHOP FOR DISSEMINATING EDUCATIONAL INFORMATION TO DISADVANTAGED STUDENTS, 1 credit

A trimester course designed to give college students credit for offsetting the racial imbalance at CSC. Ordinarily teams of college students speak at various high schools to inform Black students of the opportunities for higher education at CSC. During the summer, however, enrollees dispense information by mailing out bulletins to high schools and radio and TV stations. Part of the work involves touring interested students on our campus, guiding students in the completion of applications for college and financial aid, writing informative articles, following up applications, etc. The class is operated more like a service organization than a typical college classroom.

Ed 204 WORKSHOP FOR CONSTRUCTING CLASSROOM MATERIALS TO ALTER NEGATIVE RACIAL ATTITUDES OF CHILDREN, 1 credit

A course in which students construct classroom materials. For the first part of the course students survey the research available on attitude-changing materials. The last part of the course centers upon students writing stories, making films, tapes and other materials which can be tested for their effectiveness in changing racial attitudes.

Ed 205 SIMULATED CLASSROOM EXPERIENCES FOR THE INNER-CITY, 1 credit

A six-weeks course designed to have students in teacher education participate in simulated inner-city classroom experiences. The entire course is based upon the S.R.A. Inner-City Simulation Laboratory which consists of two introductory film strips and records, fourteen color and sound films and a number of role playing experiences. Each experience presents a problem in a fictitious but real inner-city classroom but ends abruptly without offering solutions. Class members will determine the method of evaluation.

Ed 206 INSIDE MYSELF AND WITH OTHER PEOPLE, 1 credit

A course in values is a short-term course designed to give teacher trainees an opportunity to define themselves, what they believe, and how they relate to others. Methods used to achieve class objectives are small group dynamics, encounter techniques, and writing to one's self.

Ed 207 THE LEGAL RIGHTS AND RESPONSIBILITIES OF PUBLIC SCHOOL STUDENTS, 1 credit

A course designed to acquaint teacher trainees with recent trends in student rights. Most of the responsibility for learning rests with the student who researches his interests concerning student rights. The class project entails writing and editing a pamphlet to keep students, teachers, and administrators abreast of court trends.

Ed 301 INTRODUCTION TO EDUCATIONAL MEDIA, 2 credits

Emphasizes the learning of effective media utilization practices, the acquisition of skills in selecting materials and equipment, the operation of equipment and competence in simple local production techniques.

Three class hours each week.

Ed 303 MASS COMMUNICATIONS IN EDUCATION, 2 credits

Covers production and utilization techniques in television for secondary and elementary teachers. The course is conducted on a large lecture basis with a small-group laboratory. An upper division course, it is restricted to juniors and seniors. The course is available as an alternate to Introduction to Educational Media.

Three class hours each week.

ELEMENTARY EDUCATION DEPARTMENT

Elem Ed 102 READING AND STUDY SKILLS, 2 credits

The purpose of this course is to develop reading and study skills at the college level. Special objectives are the development and reinforcement of abilities to select judiciously, to read critically, to interpret cogently, to appreciate fully, and the adapt flexibility of reading rate and method to various kinds of materials and to different purposes in reading.

Prerequisites: None (All students with college board Verbal scores of 240 or less must take this course.)

Two class hours per week.

Elem Ed 127 ART FOR EARLY CHILDHOOD, 2 credits

The student studies the development of the child in art from three to eight years and explores creative problems suitable for the young child. The student works with materials, techniques, and processes not experienced in the course, Art for Elementary Grades.

Elem Ed 209 FUNDAMENTALS OF MUSIC, 3 credits

Designed to prepare the elementary teacher in basic fundamentals and skills. It includes the study of note values, master signature, scales, key signatures, plus the use of syllables in reading music. A basic introduction to the piano keyboard is also included.

Three hours per week.

Elem Ed 227 PRE-SCHOOL ART, 2 credits

This is a survey of the philosophy, materials, and techniques basic to providing a climate in what the child is motivated to work creatively. Experience with media as well as opportunities to observe children during the creative process will give deeper meaning to the philosophy. Emphasis is placed on the needs of the child.

Two class hours per week.

Elem Ed 270 MOVEMENT EDUCATION IN EARLY CHILDHOOD, 2 credits

The prospective teacher of children age three through eight years in age is provided with a working knowledge of the most modern approach to teaching gross motor activity in an instructional physical education program. An attempt is made to emphasize the importance of helping the child develop a positive concept of self and an awareness of spatial relationships.

Elem Ed 303 TEACHING OF READING, 3 credits

The theory and practice of the teaching of reading in the elementary school is discussed. Students are acquainted with a variety of current reading materials and with approved techniques in their use. Students are given the opportunity to participate through observations, demonstrations, and actual lesson planning, and teaching situations.

Three class hours per week.

Elem Ed 305 MATH CONTENT AND METHOD IN THE ELEMENTARY SCHOOL, 3 credits

The various processes and operations of mathematics of the elementary school are carefully analyzed in determining which should be taught at each grade or developmental level and how they may be taught most effectively. Opportunities for observation and participation in actual planning-teaching situations are provided. Stress is placed upon understanding of concepts of modern trends in mathematics such as sets, inequalities, number line, numeral systems, modular arithmetic, field postulates, geometry and results of research in elementary school mathematics.

Prerequisite: Math 101

Three class hours each week.

Elem Ed 306 MATHEMATIC CONCEPTS FOR EARLY CHILDHOOD, 3 credits

The student is introduced to the teaching of quantitative measurement to young students emphasizing known concrete operations. Teaching for the development of the concepts of size, shape and numbers are an integral part of the course.

Elem Ed 307 THE CHILD IN HIS SOCIAL AND PHYSICAL ENVIRONMENT, 3 credits

This course deals with the sociological and physiological relationships of the world in which the child lives as a member of society. The historical background and geographical inter-relationships are stressed as the child may discover his relationship to the world of which he is an important part.

Elem Ed 308 TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL, 3 credits

The various social studies curriculum approaches will be examined both as to content and rationale. Teaching strategies will be evaluated. Special emphasis will be given to the current status of the social studies and to recent trends and developments. Students will be given an opportunity to observe social studies class and to develop lesson plans, teaching units, and projects.

Three class hours per week.

Elem Ed 309 TEACHING MUSIC IN THE ELEMENTARY GRADES, 3 credits

A course designed to demonstrate proper techniques of teaching music to children. Includes the study of much source material and its proper application in the classroom. Covers procedures in all grades, kindergarten through sixth, in such activities as the use of rhythm instruments, records, part singing, singing games, dances, and creative work. College students develop proven techniques and procedures through actual teaching experiences in a typical classroom situation.

Prerequisite: None (Students without a music background are encouraged to take Elem Ed 209 Fundamentals of Music first.)

Three class hours per week.

**Elem Ed 310 TEACHING HEALTH AND PHYSICAL EDUCATION FOR
ELEMENTARY GRADES, 2 credits**

Elementary school teachers are constantly called upon to supervise and plan programs for recreation or curriculum purposes. This course is planned to give the necessary background and experience in health and physical education on the elementary school level.

Two class hours per week.

**Elem Ed 311 HEALTH AND PHYSICAL EDUCATION
IN EARLY CHILDHOOD, 2 credits**

The health, physiology, and motor growth and development of the child from age three through eight are studied. Program planning for the health and physical education from nursery school through grades three is explored.

Elem Ed 312 MUSIC FOR EARLY CHILDHOOD, 3 credits

Students are provided with a creative approach to the music interests and needs of the very young child designed to acquaint the prospective teacher with current music education practices in pre-school and the primary grades. Experiences are provided in singing, listening, playing instruments, rhythmic movement and creative music activities.

Elem Ed 325 ART FOR ELEMENTARY GRADES, 3 credits

A survey of the philosophy, psychology and trends in Art Education as it relates to the elementary grades.

Three class hours per week.

Elem Ed 331 SCIENCE ACTIVITIES FOR EARLY CHILDHOOD, 3 credits

Primary teachers are given the concepts of science as they can be presented to children from Nursery through third grade. Through discussion, demonstration, and discovery, the everyday phenomena observed and encountered by the child is formulated as to hypothesis and simple tests the young child can carry out. Specific attention is given to curriculum planning in science education.

Elem Ed 332 SCIENCE IN THE ELEMENTARY GRADES, 3 credits

This course, required of all students in the elementary curriculum is part of the Professional Trimester. It is designed to provide students in the elementary curriculum with an understanding of current programs in elementary science, especially those receiving national attention. Consideration will also be given to other potential science programs in a K-6 sequence.

Elem Ed 333 NEW METHODS IN SCIENCE FOR ELEMENTARY TEACHERS, 3 credits

This course is designed to acquaint elementary teachers with innovations in science curriculum. Particular attention will be given to the results of studies devoted to the new programs in elementary science. Assistance will be provided teachers so that they may modify current programs in elementary science in keeping with the philosophy and the psychological bases prevailing today.

Elem Ed 334 FIELD SCIENCE FOR ELEMENTARY TEACHERS, 3 credits

This course is designed for students in the elementary curriculum who have an area of interest in science and for elementary teachers. The emphasis in this course is upon field work, including the observation and study of habitats and other natural conditions the observation and study of native specimens and the collection of native specimens and materials for future classroom use.

Elem Ed 335 MAKING AND USING SCIENCE MATERIALS, 3 credits

This course is designed to provide an opportunity for students in the elementary curriculum and for elementary teachers to engage in creative experiences in science. An opportunity will be provided for students to design and construct a variety of original devices to use in teaching science to children.

Elem Ed 351 CHILDREN'S LITERATURE I, 2 credits

The purpose is to acquaint students with the various types of children's literature suitable for the elementary school. Consideration is given to the appreciation of worthwhile literature which develops an understanding of peoples of all cultures from the past to the present. Opportunities are provided for the utilization and evaluation of instructional techniques appropriate to children's literature.

Two class hours per week.

Elem Ed 352 CHILDREN'S LITERATURE II, 3 credits

An extension of Children's Literature I. Consideration in the selection and use of literature in the curriculum with emphasis upon children's needs, interests and the heightening of appreciation for fine literature.

Prerequisite: Elem Ed 351.

Elem Ed 354 TEACHING OF READING IN EARLY CHILDHOOD, 3 credits

This course prepares students for beginning instruction in reading with emphasis on meeting individual needs and planning a reading program that is preventive in nature rather than corrective. Instruction will deal with concepts of readiness as well as reading instruction in nursery through grades three.

Elem Ed 355 TEACHING OF LANGUAGE ARTS, 2 credits

This course is designed to present a broad foundation of the various aspects of the Language Arts in elementary education. Emphasis will be given to the knowledges of the facets of the language arts, basic principles, techniques, and materials of instruction, recent trends and research, and practice in planning Language Arts experiences.

Two or three class hours per week.

Elem Ed 357 TEACHING LANGUAGE ARTS IN EARLY CHILDHOOD, 2 credits

The beginning of early language patterns in childhood are studied as they can be fostered and furthered in a creative manner. Tools and techniques for teaching the language arts to individual children and to groups of children are developed.

Elem Ed 358 EARLY CHILDHOOD EDUCATION, 3 credits

A study of pre-school, kindergarten, and primary grade activities in the traditional and activity school programs, with a sound evaluation of the practical aspects of the latter. Opportunity is provided for the administering of readiness tests.

Three class hours per week.

Elem Ed 361 DIAGNOSTIC AND REMEDIAL READING, 3 credits

This course is designed to acquaint students with the methods of prevention, techniques of diagnosing reading difficulties and of determining appropriate remedial treatment. Opportunities to develop informal diagnostic tools and to assist in developing instructional plans for disabled readers are provided through the college reading clinic.

Prerequisite: Elem Ed 303.

Three class hours per week.

Elem Ed 362 READING IN AN URBAN SOCIETY, 2 credits

The primary goal of this course is to influence the Teaching of reading to children caught in the poverty pockets of the urban center. The areas to be explored are: Defining the Socially Disadvantaged People, Environmental Opportunity and Learning, and Reading Instruction for Disadvantaged Children.

Two class hours per week.

Elem Ed 363 CHORAL READING FOR THE ELEMENTARY SCHOOL, 2 credits

This course will include general techniques and detailed explanations of the different phases of choral speaking for the elementary grades and practical development of individual programs with directed research, and supervised laboratory experiences.

Two class hours each week.

Elem Ed 364 POETRY FOR THE ELEMENTARY SCHOOL CHILD, 2 credits

This course is intended to familiarize prospective teachers with desirable methods which may be used in the study of poetry. Emphasis will be placed on the concept of poetry as experience. It is designed to give the student an opportunity to engage in readings and writings of poetry and to become involved in experiences and discussions.

Two class hours per week.

Elem Ed 375 TEACHING OF ART IN ELEMENTARY GRADES, 3 credits

Development of problems suitable for the elementary grades. Emphasis is placed upon the integration of art education with other school subjects.

Three class hours per week.

Elem Ed 380 READING AND LANGUAGE ARTS SEMINAR, 3 credits

Techniques in research writing will be emphasized. The student will do research in a current topic in reading and language arts and present a written paper in Turabian style. The student will prepare an oral presentation of his research to present before the faculty in reading and language arts.

Prerequisite: Elem Ed 303.

Three class hours per week.

Elem Ed 381 SEMINAR IN CHILDREN'S LITERATURE, 3 credits

This course is a discussion type seminar dealing with special areas of literature not covered in departmental offerings. The main emphasis shall be placed on the critical analysis and study of a special area chosen by the student.

Elem Ed 385 EARLY CHILDHOOD EDUCATION SEMINAR, 3 credits

Emphasized in this course is the relationship between the academic and theoretical background of the student and its practical application. His background in child psychology and creative learning activities is related to his ability to plan creatively for classroom experiences. Child development theories, child-parent relationships, parent relationships with the teacher, and curriculum planning will be stressed.

Elem Ed 401 FIELD EXPERIENCE IN CHILDREN'S LITERATURE, 2 credits

This course shall be in preparation for the field trip—a map, a guideline of the history of the area, the customs of the people and the literature we are about to study shall be examined. The second week will be spent in the area in which the literature was written. During the third week, responsibilities and

assignments, such as term papers or research projects, may be set up at the discretion of the instructor. This course will be offered only during the summer trimester.

Two class hours per week.

Elem Ed 402 LAB EXPERIENCE IN NURSERY-KINDERGARTEN, 2 credits

The purpose of this course is to apply the academic background of the student in general education, child development, and the methodology of teaching to the experience of working with three, four, and five year olds in the classroom by observing and teaching the children. The student will evaluate his experiences. From this evaluation, the student will plan for the articulation of the nursery-kindergarten programs with that of the first three grades of the elementary school.

Elem Ed 450 STUDENT TEACHING, 12 credits

Observation and participation in all teaching activities related to the performances of a teacher's work in the elementary grades.

Prerequisite: Completion of the Professional Trimester and admission to Teacher Education and with approval for Student Teaching.

Elem Ed 451 PROFESSIONAL PRACTICUM AND SCHOOL LAW, 2 credits

Method and practices of teaching. General techniques of teaching in the elementary curriculum. Pennsylvania school laws relevant to the work of the classroom teacher. Problems encountered by the students in their student teaching.

Prerequisite: Elem Ed 450 to be taken concurrently with this course.

Two class hours per week.

Elem Ed 485 EARLY CHILDHOOD WORKSHOP, 3 credits

This course consists of a study of basic needs of children and how these needs are met in the day care center, headstart program, nursery school and kindergarten. Curricular activities, effect of current social and economic trends and latest research are emphasized. The course is enriched through contributions by local and state experts of Early Childhood Education, visitations to various child development centers, viewing of outstanding films and participation in individual and group projects.

Prerequisite: Admission at the discretion of the instructor.

Elem Ed 486 ECONOMICS EDUCATION WORKSHOP, 3 credits

The economic education curriculum for the elementary schools is analyzed to determine the economic concepts which are suitable for inclusion in the elementary curriculum and how they can most effectively be taught. Economic factors which influence domestic and foreign affairs are examined. Through lectures, discussions, research, and the study of economic education curriculum plans developed by various schools, the teacher is provided with the understanding and means by which he may include economic education as an integral part of the curriculum.

Prerequisite: Admission at the discretion of the instructor.

Elem Ed 487 SOCIAL STUDIES EDUCATION WORKSHOP, 3 credits

This workshop is designed around the students' interest and background in Social Studies. Generally this encompasses the total social studies program for kindergarten through grade twelve with an emphasis on modern teaching techniques and practices.

Prerequisite: Admission at the discretion of the instructor.

Elem Ed 490 READING WORKSHOP, 3 credits

The reading workshop is designed to introduce and upgrade knowledge of classroom teachers within all aspects of reading. Special emphasis will be given to beginning reading methods, transfer of reading skills to content areas, the development of total school reading programs, study skills, and reading as a lifetime habit. The workshop will also strive to meet the needs of the group involved. Guest lecturers will speak on the various topics for reading instruction and materials for the newer programs will be provided by the major book companies.

Prerequisite: Admission at the discretion of the instructor.

Elem Ed 497 ELEMENTARY EDUCATION HONORS COURSE, 1 credit

This course is designed for independent study by elementary education majors in the areas of elementary curriculum, instruction, or research.

Prerequisite: None (Admission on approval of Elementary Education Department Chairman.)

Elem Ed 498 ELEMENTARY EDUCATION HONORS COURSE, 2 credits

This course is designed for independent study by elementary education majors in the areas of elementary curriculum, instruction, or research.

Prerequisite: None (Admission on approval of Elementary Education Department Chairman.)

Elem Ed 499 ELEMENTARY EDUCATION HONORS COURSE, 3 credits

This course is designed for independent study by elementary education majors in the areas of elementary curriculum, instruction, or research.

Prerequisite: None (Admission on approval of Elementary Education Department Chairman.)

ENGLISH

Eng 101 ENGLISH COMPOSITION I, 3 credits

Eng 102 ENGLISH COMPOSITION II, 3 credits

Eng 110 INTRODUCTION TO POETRY, 1 credit

Eng 111 INTRODUCTION TO FICTION, 3 credits

Eng 112 INTRODUCTION TO DRAMA, 1 credit

Eng 114 LITERATURE — WAR IN THE 20TH CENTURY, 3 credits

Eng 115 LITERATURE — MAN'S VIEW OF GOD, 3 credits

Eng 116 LITERATURE — CONSCIENCE IN NOVEL, 3 credits

Eng 117 LITERATURE — LOVE OF THE ROMAN SPIRIT, 3 credits

Eng 118 LITERATURE — THE AMERICAN HERO, 3 credits

Eng 119 LITERARY SEARCH FOR IDENTITY, 3 credits

Eng 120 RESEARCH PAPER, 3 credits

Eng 121 LITERARY SCIENCE FICTION, 3 credits

- Eng 122 LITERARY HORROR IN LITERATURE, 3 credits
- Eng 123 LITERATURE OF ECOLOGY, 3 credits
- Eng 124 LITERARY FICTION FUTURES, 3 credits
- Eng 125 LITERATURE OF THE AMERICAN WEST, 3 credits
- Eng 155 BLACK LITERATURE, 3 credits
- Eng 171 CO-CURRICULAR ACTIVITIES — PUBLICATIONS, 1 credit
- Eng 172 CO-CURRICULAR ACTIVITIES — PUBLICATIONS, 2 credits
- Eng 173 CO-CURRICULAR ACTIVITIES — PUBLICATIONS, 3 credits
- Eng 201 SURVEY OF ENGLISH LITERATURE I, 3 credits
- Eng 202 SURVEY OF ENGLISH LITERATURE II, 3 credits
- Eng 205 SURVEY OF CLASSIC LITERATURE AND BIBLE, 3 credits
- Eng 206 SURVEY OF CONTINENTAL FICTION, 3 credits
- Eng 207 JOURNALISM, 3 credits
- Eng 310 SURVEY OF OLD AND MIDDLE ENGLISH LITERATURE, 3 credits
- Eng 321 ENGLISH RENAISSANCE I, 3 credits
- Eng 322 ENGLISH RENAISSANCE II, 3 credits
- Eng 331 RESTORATION AND 18TH CENTURY LITERATURE I, 3 credits
- Eng 332 RESTORATION AND 18TH CENTURY LITERATURE II, 3 credits
- Eng 341 ROMANTIC LITERATURE, 3 credits
- Eng 342 VICTORIAN LITERATURE, 3 credits
- Eng 351 20TH CENTURY LITERATURE TO WORLD WAR II, 3 credits
- Eng 352 CONTEMPORARY LITERATURE SINCE WORLD WAR II, 3 credits
- Eng 355 SURVEY OF ENGLISH NOVEL I, 3 credits
- Eng 356 SURVEY OF ENGLISH NOVEL II, 3 credits
- Eng 361 AMERICAN LITERATURE I, 3 credits
- Eng 362 AMERICAN LITERATURE II, 3 credits
- Eng 363 AMERICAN LITERATURE III, 3 credits
- Eng 381 ENGLISH GRAMMAR AND USAGE, 3 credits
- Eng 382 HISTORY OF THE ENGLISH LANGUAGE, 3 credits
- Eng 383 INTRODUCTION TO LINGUISTICS, 3 credits
- Eng 391 HISTORY OF LITERARY CRITICISM, 3 credits
- Eng 395 ADVANCED WRITING, 3 credits

- Eng 396 CREATIVE WRITING—FICTION, 3 credits
- Eng 397 CREATIVE WRITING—POETRY, 3 credits
- Eng 398 CREATIVE WRITING—DRAMA, 3 credits
- Eng 411 OLD MIDDLE ENGLISH LITERATURE I, 3 credits
- Eng 412 OLD MIDDLE ENGLISH LITERATURE II, 3 credits
- Eng 415 CHAUCER, 3 credits
- Eng 421 STUDIES IN RENAISSANCE LITERATURE I, 3 credits
- Eng 422 STUDIES IN RENAISSANCE LITERATURE II, 3 credits
- Eng 423 SHAKESPEARE I, 3 credits
- Eng 424 SHAKESPEARE II, 3 credits
- Eng 425 MILTON, 3 credits
- Eng 431 STUDIES IN RESTORATION AND 18TH CENTURY I, 3 credits
- Eng 432 STUDIES IN RESTORATION AND 18TH CENTURY II, 3 credits
- Eng 441 19TH CENTURY LITERATURE I, 3 credits
- Eng 442 19TH CENTURY LITERATURE II, 3 credits
- Eng 451 STUDIES IN 20TH CENTURY ENGLISH LITERATURE I, 3 credits
- Eng 452 STUDIES IN 20TH CENTURY ENGLISH LITERATURE II, 3 credits
- Eng 461 THEMES OF AMERICAN LITERATURE I, 3 credits
- Eng 462 THEMES OF AMERICAN LITERATURE II, 3 credits
- Eng 463 AMERICAN LITERATURE GENRES I, 3 credits
- Eng 464 AMERICAN LITERATURE GENRES II, 3 credits
- Eng 481 STUDIES IN DRAMA I, 3 credits
- Eng 482 STUDIES IN DRAMA II, 3 credits
- Eng 491 STUDIES IN LITERARY CRITICISM I, 3 credits
- Eng 492 STUDIES IN LITERARY CRITICISM II, 3 credits
- Eng 493 PRACTICAL CRITICISM, 3 credits
- Eng 501 MAJOR AUTHORS IN ENGLISH LITERATURE I, 3 credits
- Eng 502 MAJOR AUTHORS IN ENGLISH LITERATURE II, 3 credits
- Eng 503 MAJOR AUTHORS IN AMERICAN LITERATURE I, 3 credits
- Eng 504 MAJOR AUTHORS IN AMERICAN LITERATURE II, 3 credits
- Eng 505 SEMINAR IN THEMES OF LITERATURE I, 3 credits
- Eng 506 SEMINAR IN THEMES OF LITERATURE II, 3 credits

- Eng 507 SEMINAR IN LITERARY GENRES I, 3 credits
Eng 508 SEMINAR IN LITERARY GENRES II, 3 credits
Eng 510 INDEPENDENT STUDIES IN ENGLISH, 3 credits

GEOGRAPHY AND EARTH SCIENCE

Geo 100 INTRODUCTION TO GEOGRAPHY, 3 credits

A basic course organized to develop a knowledge and appreciation of the physical factors of the environment and man's adjustment to them. World patterns of landforms, climate, soils, vegetation, etc. are emphasized in relation to man's economic and cultural activities.

Three class hours each week.

Geo 101 HUMAN GEOGRAPHY, 3 credits

This course is designed for students wishing to broaden their knowledge and understanding of the world's culture regions as seen from the geographer's point of view.

Three class hours each week.

Geo 150 GENERAL GEOLOGY, 4 credits

A one semester introductory course dealing with the earth's present physical state as well as its historical development. While primarily intended for beginning Earth Science Secondary Education students, it will also best serve the needs of those who wish only a single experience in the earth sciences. Topics to be considered will include earth materials and processes, the evolution of life, and the physical evolution of the planet. Laboratory work consists of rock, mineral, and fossil study, as well as elementary map interpretation.

Three hours lecture and a two hour lab each week.

Geo 151 PHYSICAL GEOLOGY, 4 credits

Physical Geology is the first of a two course sequence (followed by Historical Geology) designed as an introduction to the field of geology. It is intended primarily for Geology majors, but would be suitable for Earth Science Secondary Education students, students needing a two-semester lab sequence, or any student wishing to increase his knowledge of our planet. Topics to be considered include the earth's internal composition, rocks and minerals, surface processes, earthquakes and volcanism, and current areas of study in the geosciences.

Three hours lecture and a two hour lab each week.

Geo 152 HISTORICAL GEOLOGY, 4 credits

A survey course in earth history which assumes some knowledge of geologic terminology. The course is required for Geology majors, but it is suitable for the student in Earth Science Secondary Education as well as anyone interested in the historical evolution of the Earth. The course also serves as the second of a two-semester lab sequence (preceded by Physical Geology). Topics considered include geologic time; the use of fossil material; and the origin and evolution of planet Earth (with special emphasis on North America). Laboratory work includes selected problem sets, a study of the major plant and invertebrate fossil groups and field trips whenever possible.

Recommended: Physical Geology or General Geology.

Three hours lecture and a two hour lab each week.

Geo 157 DESCRIPTIVE ASTRONOMY, 3 credits

Recognition of the various elements of the solar system, their physical characteristics and motions, the phenomena of the galactic system and the extra-galactic space and the constellations, with a consideration of the mathematical phases generally omitted from studies of the kind.

Three class hours each week.

Geo 200 ECONOMIC GEOGRAPHY, 3 credits

The geographical bases for the production, manufacture and distribution of the earth's resources and the relationships arising as man engages in making a living.

Three class hours each week.

Geo 220 UNITED STATES AND PENNSYLVANIA, 3 credits

The physiography, climate, vegetation, population, land utilization, production and trade of the various regions of the United States and the Commonwealth of Pennsylvania. The first part of the course deals with Pennsylvania, and through its economic position within the States, proceeds logically to an analysis of the nation as a whole.

Three class hours each week.

Geo 243 ENVIRONMENTAL STUDIES, 3 credits

Emphasizes the development of a working philosophy of conservation and the use of the various types of natural resources. The relationship between the loss and waste in the varied uses of the natural resource, as in processing, production, transportation, and/or maintenance, will be considered.

Three class hours each week.

Geo 250 MINERALOGY, 3 credits

The course includes an introduction to the morphology and internal structure of crystals (crystallography) and an examination of the chemical and physical nature of minerals. Laboratory time is devoted to the study of crystal systems and the identification of selected mineral hand specimens.

Recommended: Physical Geology or General Geology and Chemistry I (101).

Two hours lecture and a two hour lab each week.

Geo 251 PETROLOGY, 3 credits

A detailed examination of the three major rock groups: igneous, sedimentary, and metamorphic. Particular emphasis is placed on the origin of individual rock types as well as the several bases for classification. Laboratory work includes both hand specimen identification and thin section examination.

Recommended: Physical Geology or General Geology, Mineralogy, and Chemistry I (101).

Two hours lecture and a two hour lab each week.

Geo 252 ECONOMIC GEOLOGY, 3 credits

The composition, distribution and exploitation of the common economic rocks and minerals are studied. The first half of the course covers metallic minerals, the second half, the non-metallic minerals. Field trips are a part of the course work.

Recommended: Physical Geology, or General Geology, Mineralogy, and Chemistry I (101).

Three class hours each week.

Geo 254 METEOROLOGY, 3 credits

An introduction to the physics of the atmosphere, approached from the standpoint of earth atmosphere interaction. The effects of the physical controls such as land and water distribution upon weather and climate is emphasized. Weather map analysis and weather observations are integral parts of the course.

Three class hours each week.

Geo 255 CLIMATOLOGY, 3 credits

A systematic study of the climatic regions of the world and the advantages and limitations of each for man's occupation. The physical aspects of the atmosphere and the regional characteristics of climate are examined.

Recommended: Meteorology.

Three class hours each week.

Geo 260 PHYSICAL GEOGRAPHY, 3 credits

A study of the physical elements in the geographic pattern of man's environment. Introductory phases of systematic geography. Field problems are an integral part of the course.

Three class hours each week.

Geo 261 GEOMORPHOLOGY, 3 credits

An advanced course dealing with the origin, classification, and description of surface features (landforms). Particular emphasis will be placed on the evolution of landscapes as related to underlying geologic factors and the climatic regime. Considerable time will be devoted to the examination of landforms as revealed on topographic maps and aerial photographs.

Recommended: Physical Geology or General Geology and Historical Geology.

Three class hours each week.

Geo 301 COMMERCIAL AND INDUSTRIAL GEOGRAPHY, 3 credits

A geographic analysis of the factors involved in the production and distribution of economic goods. Local and world patterns of commerce and industry and their effect on national and international affairs are studied.

Recommended: Economic Geography.

Three class hours each week.

Geo 302 TRADE AND TRANSPORTATION, 3 credits

National and International trade, transportation routes, and transportation centers.

Recommended: Economic Geography.

Three class hours each week.

Geo 310 URBAN GEOGRAPHY, 3 credits

An analysis of cities in selected regions: classification, location, distribution, function and growth; types and patterns of land use. Geography in city planning will culminate the study.

Three class hours each week.

Geo 320 GEOGRAPHY OF THE UNITED STATES AND CANADA, 3 credits

A regional study of the United States and Canada, considering man's adjustment to the physical factors of relief, climate, soil, vegetation and mineral resources. Political structure, and the relationships between the two countries and the rest of the world are analyzed from a geographic point of view.

Three class hours each week.

Geo 322 GEOGRAPHY OF PENNSYLVANIA, 3 credits

A regional analysis of Pennsylvania, emphasizing man's cultural and economic response to environmental factors. Field trips are an integral part of the course.

Three class hours each week.

Geo 323 GEOGRAPHY OF LATIN AMERICA, 3 credits

The effects of the physical environment of Latin America upon the activities of man. Effects of the historical background, types of governments, and ethnic backgrounds of the peoples upon the development of the natural resources of Latin America. The study is regional by nations.

Three class hours each week.

Geo 325 GEOGRAPHY OF EUROPE, 3 credits

Europe's natural and political regions, emphasizing the complexity of the continent's natural and cultural landscape, and the effect they have had on the occupants' past and present.

Three class hours each week.

Geo 329 GEOGRAPHY OF ASIA, 3 credits

A regional study of the continent of Asia. An analysis of the political subdivisions will be made from the standpoint of cultural and political changes, as influenced by the physical nature of each nation. The significance of these changes in world relations is stressed.

Three class hours each week.

Geo 330 GEOGRAPHY OF THE SOVIET UNION, 3 credits

A regional study of the physical and cultural features of the Soviet Union. The emphasis is placed upon these factors responsible for the current position of the Soviet Union as a major world power, and upon potential future development.

Three class hours each week.

Geo 331 GEOGRAPHY OF THE FAR EAST, 3 credits

The natural environment of China, Japan, Southeastern Asia, Korea, and man's adjustments economically, politically, and socially.

Three class hours each week.

Geo 333 GEOGRAPHY OF AFRICA, 3 credits

A regional study of Africa, showing the social and economic development of these lands in relation to their physical environment. The importance of Africa to the world, and the effect thereon of emergent nationalism in an Africa torn by strife are studied.

Three class hours each week.

Geo 334 GEOGRAPHY OF THE PACIFIC BASIN, 3 credits

Lands and people of the great ocean. Particular attention is given to Australia, Indonesia, New Zealand and the Philippines.

Three class hours each week.

Geo 341 HISTORICAL GEOGRAPHY, 3 credits

A study of the interrelationships between the natural environment and the historical development of the United States. The attraction of North America for colonization, the expansion from sea to sea, the absorption of millions of

immigrants, the schism and refusion of the nation, the development of resources to a position of world power are considered.

Three class hours each week.

Geo 342 POLITICAL GEOGRAPHY, 3 credits

A political geography giving attention to the problems of State, internal and external, as influenced by the human and natural resources.

Three class hours each week.

Geo 350 PALEONTOLOGY, 3 credits

Paleontology should be of interest to students with a geology and/or biology background. A systematic examination is made of each of the invertebrate phyla and a cursory look is given to certain groups of microfossils as well as the evolution of major vertebrate phyla. And, the underlying principles of paleontology, paleoecology and evolution are examined in light of fossil evidence. Attention is given to important index fossils.

Recommended: Historical Geology.

Two hours lecture and a two hour lab each week.

Geo 351 STRATIGRAPHY, 4 credits

A study is made of the basic principles governing the interpretation, correlation, classification, and naming of stratified rock units. The stratigraphy of the Pennsylvania System is emphasized.

Geo 352 STRUCTURAL GEOLOGY, 4 credits

The primary and secondary structures of rock masses and their modes of formation are covered in this course. Actual structures are examined in the field. Geologic maps are utilized.

Recommended: Physical Geology.

Three hours lecture and a two hour lab each week.

Geo 358 OCEANOGRAPHY, 3 credits

A detailed examination of the water portion of planet Earth. The subject matter of the course is conveniently considered under four areas: (1) the chemistry of the oceans, (2) marine life, (3) physical oceanography, and (4) marine geology (submarine topography, shoreline evolution, etc.)

Recommended: Physical Geology or General Geology.

Three class hours each week.

Geo 370 MAP APPRECIATION AND INTERPRETATIONS, 3 credits

A non-technical laboratory course designed to develop competence in map use and evaluation. The history of maps; use and interpretation of globes, cartograms, diagrams and topographic maps; theory of map construction, and the application of maps and mapping techniques to teaching will be stressed. Cannot be substituted for Geo 372.

Two hours lecture and two hours laboratory each week.

Geo 372 CARTOGRAPHY, 3 credits

A laboratory course designed to develop competence in the compilation, design, and execution of maps, charts, and diagrams. The use of tools, sources of data, method of reproduction and application of maps will be stressed. Cannot be substituted for Geo 370.

Two hours lecture and two hours laboratory each week.

Geo 375 MAP AND AERIAL PHOTOGRAPH INTERPRETATION, 3 credits

An intensification and amplification of cartographic methods to include statistical representation map reproduction, and familiarization with technical equipment. The use of maps and aerial photographs as sources of quantitative and qualitative information. The principles of image identification, simple photo-grammetric measurements, mapping from aerial photographs and interpretation of the natural and cultural landscape.

Two hours lecture and two hours laboratory each week.

Geo 401 SPECIAL PROBLEMS IN GEOGRAPHY I, 1 credit

Development of individual research problems by majors. Does not replace any course regularly given.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 402 SPECIAL PROBLEMS IN GEOGRAPHY II, 2 credits

Development of individual research problems by majors. Does not replace any course regularly given.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 403 SPECIAL PROBLEMS IN GEOGRAPHY III, 3 credits

Development of individual research problems by majors. Does not replace any course regularly given.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 404 SPECIAL PROBLEMS IN EARTH SCIENCE I, 1 credit

Development of individual research problems by majors. Does not replace any course regularly given.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 405 SPECIAL PROBLEMS IN EARTH SCIENCE II, 2 credits

Development of individual research problems by majors. Does not replace any course regularly given.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 406 SPECIAL PROBLEMS IN EARTH SCIENCE III, 3 credits

Development of individual research problems by majors. Does not replace any course regularly given.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 407 SPECIAL PROBLEMS IN GEOLOGY I, 1 credit

Development of individual research problems by majors. Does not replace any course regularly given.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 408 SPECIAL PROBLEMS IN GEOLOGY II, 2 credits

Development of individual research problems by majors. Does not replace any

course regularly given.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 409 SPECIAL PROBLEMS IN GEOLOGY III, 3 credits

Development of individual research problems by majors. Does not replace any course regularly given.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 421 SUMMER FIELD COURSE I GEOGRAPHY, 1 credit

Planned trips in summer sessions during which lectures and discussions are conducted.

Open to all students.

Geo 422 SUMMER FIELD COURSE II GEOGRAPHY, 2 credits

Planned trips in summer sessions during which lectures and discussions are conducted.

Open to all students.

Geo 423 SUMMER FIELD COURSE III GEOGRAPHY, 3 credits

Planned trips in summer sessions during which lectures and discussions are conducted.

Open to all students.

Geo 424 SUMMER FIELD COURSE I EARTH SCIENCE, 1 credit

Planned trips in summer sessions during which lectures and discussions are conducted.

Open to all students.

Geo 425 SUMMER FIELD COURSE II EARTH SCIENCE, 2 credits

Planned trips in summer sessions during which lectures and discussions are conducted.

Open to all students.

Geo 426 SUMMER FIELD COURSE III EARTH SCIENCE, 3 credits

Planned trips in summer sessions during which lectures and discussions are conducted.

Open to all students.

Geo 427 SUMMER FIELD COURSE I GEOLOGY, 1 credit

Planned trips in summer sessions during which lectures and discussions are conducted.

Open to all students.

Geo 428 SUMMER FIELD COURSE II GEOLOGY, 2 credits

Planned trips in summer sessions during which lectures and discussions are conducted.

Open to all students.

Geo 429 SUMMER FIELD COURSE III GEOLOGY, 3 credits

Planned trips in summer sessions during which lectures and discussions are conducted.

Open to all students.

Geo 433 FIELD METHODS IN GEOGRAPHY, 3 credits

An intensive micro-geographic geologic study through actual field work. An advanced course; permission of staff required for registration.

One hour lecture and 4 to 8 hours field work each week.

Geo 436 FIELD METHODS IN EARTH SCIENCE, 3 credits

An intensive micro-earth science study through actual field work. An advanced course; permission of staff required for registration.

One hour lecture and 4 to 8 hours field work each week.

Geo 439 FIELD METHODS IN GEOLOGY, 3 credits

An intensive micro-geologic study through actual field work. An advanced course; permission of staff required for registration.

One hour lecture and 4 to 8 hours field work each week.

Geo 471 GEOGRAPHY WORKSHOP I, 1 credit

Workshops are designed to provide students with a combination of experiences. Included are lectures, field work, and laboratory situations. It is hoped that through these experiences the student will gain insights which are relevant to present day situations.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 472 GEOGRAPHY WORKSHOP II, 2 credits

Workshops are designed to provide students with a combination of experiences. Included are lectures, field work, and laboratory situations. It is hoped that through these experiences the student will gain insights which are relevant to present day situations.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 473 GEOGRAPHY WORKSHOP III, 3 credits

Workshops are designed to provide students with a combination of experiences. Included are lectures, field work, and laboratory situations. It is hoped that through these experiences the student will gain insights which are relevant to present day situations.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 474 EARTH SCIENCE WORKSHOP I, 1 credit

Workshops are designed to provide students with a combination of experiences. Included are lectures, field work, and laboratory situations. It is hoped that through these experiences the student will gain insights which are relevant to present day situations.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 475 EARTH SCIENCE WORKSHOP II, 2 credits

Workshops are designed to provide students with a combination of experiences. Included are lectures, field work, and laboratory situations. It is hoped that through these experiences the student will gain insights which are relevant to present day situations.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 476 EARTH SCIENCE WORKSHOP III, 3 credits

Workshops are designed to provide students with a combination of experiences. Included are lectures, field work, and laboratory situations. It is hoped that through these experiences the student will gain insights which are relevant to present day situations.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 477 GEOLOGY WORKSHOP I, 1 credit

Workshops are designed to provide students with a combination of experiences. Included are lectures, field work, and laboratory situations. It is hoped that through these experiences the student will gain insights which are relevant to present day situations.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 478 GEOLOGY WORKSHOP II, 2 credits

Workshops are designed to provide students with a combination of experiences. Included are lectures, field work, and laboratory situations. It is hoped that through these experiences the student will gain insights which are relevant to present day situations.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 479 GEOLOGY WORKSHOP III, 3 credits

Workshops are designed to provide students with a combination of experiences. Included are lectures, field work, and laboratory situations. It is hoped that through these experiences the student will gain insights which are relevant to present day situations.

Prerequisite: Permission of staff.

Hours to be arranged.

Geo 481 HONORS COURSE IN GEOGRAPHY I, 1 credit

Directed reading and research in field of interest chosen by student in consultation with the instructor.

Prerequisite: Provisions of the Honors Program of the college.

Approval by staff of the department.

Weekly meeting with instructor to be arranged.

Geo 482 HONORS COURSE IN GEOGRAPHY II, 2 credits

Directed reading and research in field of interest chosen by student in consultation with the instructor.

Prerequisite: Provisions of the Honors Program of the college.

Approval by staff of the department.

Weekly meeting with instructor to be arranged.

Geo 483 HONORS COURSE IN GEOGRAPHY III, 3 credits

Directed reading and research in field of interest chosen by student in consultation with the instructor.

Prerequisite: Provisions of the Honors Program of the college.

Approval by staff of the department.

Weekly meeting with instructor to be arranged.

Geo 484 HONORS COURSE IN EARTH SCIENCE I, 1 credit

Directed reading and research in field of interest chosen by student in consultation with the instructor.

Prerequisite: Provisions of the Honors Program of the college.

Approval by staff of the department.

Weekly meeting with instructor to be arranged.

Geo 485 HONORS COURSE IN EARTH SCIENCE II, 2 credits

Directed reading and research in field of interest chosen by student in consultation with the instructor.

Prerequisite: Provisions of the Honors Program of the college.

Approval by staff of the department.

Weekly meeting with instructor to be arranged.

Geo 486 HONORS COURSE IN EARTH SCIENCE III, 3 credits

Directed reading and research in field of interest chosen by student in consultation with the instructor.

Prerequisite: Provisions of the Honors Program of the college.

Approval by staff of the department.

Weekly meeting with instructor to be arranged.

Geo 487 HONORS COURSE IN GEOLOGY I, 1 credit

Directed reading and research in field of interest chosen by student in consultation with the instructor.

Prerequisite: Provisions of the Honors Program of the college.

Approval by staff of the department.

Weekly meeting with instructor to be arranged.

Geo 488 HONORS COURSE IN GEOLOGY II, 2 credits

Directed reading and research in field of interest chosen by student in consultation with the instructor.

Prerequisite: Provisions of the Honors Program of the college.

Approval by staff of the department.

Weekly meeting with instructor to be arranged.

Geo 489 HONORS COURSE IN GEOLOGY III, 3 credits

Directed reading and research in field of interest chosen by student in consultation with the instructor.

Prerequisite: Provisions of the Honors Program of the college.

Approval by staff of the department.

Weekly meeting with instructor to be arranged.

Geo 491 SEMINAR IN GEOGRAPHY I, 1 credit

An introduction to the literature, philosophy, techniques, and research methods of geography. Specific course listings, and credit hours will be available at each registration.

Geo 492 SEMINAR IN GEOGRAPHY II, 2 credits

An introduction to the literature, philosophy, techniques, and research methods of geography. Specific course listings, and credit hours will be available at each registration.

Geo 493 SEMINAR IN GEOGRAPHY III, 3 credits

An introduction to the literature, philosophy, techniques, and research methods of geography. Specific course listings, and credit hours will be available at each registration.

Geo 494 SEMINAR IN EARTH SCIENCE I, 1 credit

This course is designed for small-group, in-depth study and discussion of selected areas within the Earth Sciences (Geology, Astronomy, Oceanography, and Meteorology). Topics vary from one trimester to the next, but each will reflect the area of specialization of the instructor involved.

Recommended: Junior or senior standing and some background in the Earth Sciences.

Geo 495 SEMINAR IN EARTH SCIENCE II, 2 credits

This course is designed for small-group, in-depth study and discussion of selected areas within the Earth Sciences (Geology, Astronomy, Oceanography, and Meteorology). Topics vary from one trimester to the next, but each will reflect the area of specialization of the instructor involved.

Recommended: Junior or senior standing and some background in the Earth Sciences.

Geo 496 SEMINAR IN EARTH SCIENCE III, 3 credits

This course is designed for small-group, in-depth study and discussion of selected areas within the Earth Sciences (Geology, Astronomy, Oceanography, and Meteorology). Topics vary from one trimester to the next, but each will reflect the area of specialization of the instructor involved.

Recommended: Junior or senior standing and some background in the Earth Sciences.

Geo 497 SEMINAR IN GEOLOGY I, 1 credit

This course is designed for small-group, in-depth study and discussion of selected areas within the field of Geology. Topics vary from one trimester to the next, but each will reflect the area of specialization of the instructor involved.

Recommended: Junior or senior standing and some background in the field of Geology.

Geo 498 SEMINAR IN GEOLOGY II, 2 credits

This course is designed for small-group, in-depth study and discussion of selected areas within the field of Geology. Topics vary from one trimester to the next, but each will reflect the area of specialization of the instructor involved.

Recommended: Junior or senior standing and some background in the field of Geology.

Geo 499 SEMINAR IN GEOLOGY III, 3 credits

This course is designed for small-group, in-depth study and discussion of selected areas within the field of Geology. Topics vary from one trimester to the next, but each will reflect the area of specialization of the instructor involved.

Recommended: Junior or senior standing and some background in the field of Geology.

CONTEMPORARY GEOGRAPHIC PROBLEMS

An array of physical-and human-oriented courses (1, 2 or 3 credits) based on the application of contemporary geographic techniques and concepts to selected problems of spatial interaction. Specific course listings and credit hours and course numbers will be available at each registration.

HEALTH AND PHYSICAL EDUCATION HIGHWAY AND DRIVER SAFETY DEPARTMENT

HEALTH AND PHYSICAL EDUCATION

H & PE 101 PHYSICAL EDUCATION I—MEN, 1 credit

The purpose is to help students attain a high degree of physical fitness through a program which includes seasonal sports. The development of those skills which may be carried on in college and after college life.

Two class hours each week.

H & PE 103, 203, 303 ADAPTIVE PHYSICAL EDUCATION—MEN, 1 credit

These courses are offered with a physician's permission, to men students having a physical handicap and unable to participate in the regular physical education program offered for men. The final approval is at the discretion of the Health Service Department.

Two class hours each week.

H & PE 105 HEALTH, 2 credits (Co-Ed)

Consideration is given to the health, knowledge, attitudes and practices with the hope that practical application will be made in personal and community living.

Two hours each week.

H & PE 120 PRINCIPLES OF PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL, 2 credits

Historical, philosophical, and scientific foundations of physical education.

Two class hours each week.

H & PE 121 MOVEMENT ANALYSIS, 3 credits

The principles of physics, kinesiology, sociology, and educational psychology applied to human movement. This is both a theory and laboratory course concerned with components of physical fitness, posture analysis and the principles and application of movement in daily living.

Four class hours each week.

H & PE 122 GAMES AND GYMNASTICS—GRADES K-3, 2 credits

Games of low organization, self-testing activities, beginning stunts and gymnastics for the developmental needs of primary school children. Emphasis is on progression and skill development.

Prerequisite: Movement Analysis.

H & PE 201 PHYSICAL EDUCATION II—MEN, 1 credit

To further develop skills and physical attitudes and to grow in mental and emotional fitness. Emphasis being placed on individual sports.

Two class hours each week.

H & PE 223 GAMES AND GYMNASTICS—GRADES 4-6, 3 credits

This includes modified team games, track and field events, intermediate and advanced gymnastic skills for grades 4-6. Emphasis is placed on progression and total learning through motor skill development.

Four class hours each week.

H & PE 224 RHYTHMICS AND DANCE—GRADES K-6, 3 credits

The emphasis in this course is on creativity and developmental progression of rhythmic skills through movement exploration, singing games, folk and square dances. Consideration is given to the aesthetic and cultural values of human movement.

Four class hours each week.

H & PE 240 APPARATUS AND GYMNASTICS, 1 credit

Development of fundamental skills in stunts, tumbling, and apparatus. Emphasis is placed on safety procedures including proper spotting techniques for each skill.

Two class hours each week.

H & PE 241 BEGINNING SWIMMING, 1 credit

Presentation of those skills that would enable the student to move safely in and around the water and to gain a sufficient number of skills to swim with ease and enjoyment.

Two class hours each week.

H & PE 242 INTERMEDIATE SWIMMING, 1 credit

Advanced beginner and sub-intermediate swimmer. Emphasis is placed on perfecting the nine basic strokes and on becoming more comfortable in, on, or about the water. Students should be comfortable in deep water in order to enter this course.

Two class hours each week.

H & PE 243 ADVANCED SWIMMING, SYNCHRONIZED AND DIVING, 1 credit

A variety of intermediate and advanced swimming skills are included in this course: synchronized swimming and basic diving.

Two class hours each week.

H & PE 244 CO-ED SENIOR LIFE SAVING, 1 credit

Under the auspices of the American Red Cross, consideration is given swimming and life saving techniques necessary to meet the requirements of water safety.

Two class hours each week.

H & PE 245 CO-ED WATER SAFETY INSTRUCTOR, 2 credits

Under the auspices of the American Red Cross, this course is designed to equip the individual with the basic knowledges and skills necessary to save his own life or the lives of others—a safety consciousness. Also to provide the student with the methods and techniques of water safety instruction.

Prerequisite: Current Senior Life Saving Certificate.

Three class hours each week.

H & PE 246 ARCHERY AND GOLF, 1 credit

Instruction and practice in the fundamentals of golf and archery. Curriculum includes analysis, practice, and application of the variety of golf strokes, game rules and etiquette. Archery activities include target archery, different types of competition and bare bow hunting.

Two class hours each week.

H & PE 247 BADMINTON AND TENNIS, 1 credit

Instruction and practice in the fundamental skills and knowledge of rules, strategy, and courtesies of both badminton and tennis.

Two class hours each week.

H & PE 249 FOLK, SQUARE, AND ROUND DANCE—(Co-ed), 1 credit

A progressive course in folk, square, and round dance. Organization and calling skills are included.

Two class hours each week.

H & PE 250 MODERN DANCE, 1 credit

A study of contemporary dance techniques and composition, dance forms and the elements of choreography. Problems in force, time, and space are elements of expressive movement.

Two class hours each week.

H & PE 251 SLIMNASTICS (Only persons 15% overweight or more), 1 credit

This course is designed exclusively for the woman who is overweight. Through this course the overweight person will attempt to understand herself and her problem. Course content will include dietary information and vigorous physical activities aimed at weight reduction. Requires physician's approval.

Two class hours each week.

H & PE 252 VOLLEYBALL AND BASKETBALL, 1 credit

Emphasis on instruction and practice in fundamental techniques and team play; analysis of systems of team play; study of methods, rules, and game strategy. Practical experience in officiating.

Two class hours each week.

H & PE 253 RECREATIONAL GAMES (Table Tennis, etc.), 1 credit

Includes the fundamental skills and rules of deck tennis, table tennis, aerial tennis, paddle tennis, shuffleboard, horseshoes, croquet, etc.

Two class hours each week.

H & PE 254 FENCING AND RHYTHMIC ACTIVITIES, 1 credit

Instruction and practice in basic fencing techniques, including elementary bouts, rules and officiating. Rhythmic activities include locomotor movements and their variations as well as creative activities with hand apparatus.

Two class hours each week.

H & PE 255 TRACK AND FIELD, 1 credit

Includes basic instruction and practice in sprints, long distance running, starting blocks, relays, shot put, discus, javelin, hurdles, broad jump and high jump.

Two class hours each week.

H & PE 256 CONDITIONING AND MOVEMENT EDUCATION, 1 credit

Course designed to help the student understand the various components of fitness and includes the presentation of a progressive course of conditioning activities. Encourages an appreciation of the ability and capacity to control and direct the movements of the body with skill and intelligence.

Two class hours each week.

H & PE 257 BOWLING (Fee) AND POCKET BILLIARDS (Fee), 1 credit

This course includes the fundamental skills of bowling and game practice. The basic skills of pocket billiards and a variety of cue games are also included.

Two class hours each week.

H & PE 301 PHYSICAL EDUCATION III—MEN, 1 credit

Specialization in selected activities aimed to bring personal performance ability to advanced levels.

Prerequisite: Physical Education I and II.

Two class hours each week.

H & PE 310 FIRST AID (Co-Ed), 1 credit

Under auspices of the American Red Cross, this course is designed to provide the student with the knowledge and skills in First Aid. Opportunity to learn what to do in the day to day living experiences and emergencies.

H & PE 311 CAMPING AND OUTDOOR EDUCATION (Co-Ed), 2 credits
(Elective)

This is an introductory course in camp craft skills including outdoor cooking, selecting camp sites, organizing overnight and weekend trips, etc.

H & PE 321 PLAYGROUND AND GYMNASIUM ACTIVITIES (Co-Ed), 2 credits

This course is designed for the elementary classroom teacher and/or playground recreational leaders. It offers activity useful for the elementary school child such as rhythmic and dance, games and sports, gymnastics and apparatus, as well as exercise and self testing events. Some organization and management will also be offered.

Three class hours each week.

H & PE 335 ADAPTED AND RELATED PROGRAMS, 2 credits

This course is divided into two areas of instruction. The adapted section covers the study and application of the modified activities for the atypical child. The related program deals with the noon hour activities, recess, classroom program, intramural, camping and outdoor education, special events, integrated and correlated subject fields, rainy day programs, and aquatics. These courses are primarily designed to disseminate information about the above areas.

Four class hours each week.

H & PE 336 PROGRAMMING PHYSICAL EDUCATION IN THE
ELEMENTARY SCHOOL, 3 credits

The programming constitutes the total organization of physical education in the elementary school as to curriculum content, methods, materials, facilities, equipment, and supplies. All additional emphasis is given to the elementary school.

Prerequisite: All other required course offerings in this physical education area of interest.

Four class hours each week.

H & PE 341 SKIN AND SCUBA, 1 credit

An introduction to skin and scuba diving — both the theory and practical work as a pool lends itself to such instruction. Develop an awareness of the safety aspects of the sport, exposure to various types of equipment, visual aids, as well as activities that can be performed in a pool.

Two class hours each week.

H & PE 342 OFFICIATING AND COACHING AQUATIC ACTIVITIES, 1 credit

Designed for the advanced swimmer who desires techniques of coaching and officiating different swimming programs. This includes competitive teams in form, speed and synchronized swimming, it also involved organizing, conducting, and officiating swimming meets for intramural, interscholastic, and camp situations.

Two class hours each week.

H & PE 347 INTERMEDIATE BADMINTON AND TENNIS, 1 credit

To provide an opportunity for the student to advance beyond the beginner level and acquire a greater degree of skill through advanced analysis of techniques and strategy.

Two class hours each week.

H & PE 352 BASKETBALL OFFICIATING FOR WOMEN, 1 credit

The purpose of this course is to enable women students to become qualified officials of girls' and women's basketball. Course content includes the analysis of basketball rules, game procedures and practice in the techniques of officiating.

Two class hours each week.

HIGHWAY SAFETY AND DRIVER EDUCATION

H Saf 301 DRIVER EDUCATION AND TRAFFIC SAFETY, 3 credits

Classroom instruction combined with road training and the teaching of driving classroom instruction combined with road training and the teaching of driving to beginners using dual control cars. Emphasis is placed upon the essential facts, principles, skills and attitudes necessary for good driving and the teaching of same to beginning drivers. Ability to use and interpret the results of psychophysical testing is required.

Three class and three practicum hours each week.

H Saf 302 INTRODUCTION TO SAFETY EDUCATION, 3 credits

The development of habits and attitudes that will make for safe living by both teachers and students. Acquaintance with: 1. Rules, regulations and laws concerning the operation of motor vehicles; 2. Rules, regulations of pedestrian travel; 3. Other hazards to which we are commonly subjected such as fire, electricity, etc., especially in the home and school.

Three class hours each week.

H Saf 303 MATERIALS AND METHODS IN TRAFFIC SAFETY IN

SECONDARY SCHOOLS AND ELEMENTARY GRADES, 3 credits

The development of habits and attitudes that will better enable the elementary and secondary school teacher in the teaching of safety at home and in the school. Evaluation of curricular materials, teacher as safety counselor, basic facts relating to accidents and hazards.

Three class hours each week.

H Saf 401 ORGANIZATION AND ADMINISTRATION OF SAFETY EDUCATION,
3 credits

Curriculum content and experiences for all school grades in safety education, its organization and graduation for teaching purposes. Ways and means of administering a safety education program.

Three class hours each week.

H Saf 402 VISUAL AND OTHER AIDS IN SAFETY EDUCATION, 3 credits

Discussion of practical values in visual and other sensory aids; guiding principles and techniques in the teaching of safety education.

Two class and two practicum hours each week.

H Saf 403 PSYCHOLOGY OF ACCIDENT PREVENTION, 3 credits

The development of habits and attitudes that will better enable the elementary and secondary school teacher in the teaching of safety at home and in the school. Evaluation of curricular materials, teachers as safety counselor, basic facts relating to accidents and hazards.

Three class hours each week.

INDUSTRIAL ARTS DEPARTMENT

INDUSTRIAL ARTS EDUCATION

IA Ed 102 INTRODUCTION TO INDUSTRIAL ARTS EDUCATION, 2 credits

An introduction to the role of industrial arts as a part of general education; place and purpose in the elementary, middle and secondary schools; objectives of industrial arts; role of the industrial arts teacher; professional literature; historical places and current trends and directions of industrial arts.

Two class hours each week.

IA Ed 355 ORGANIZATION COURSE MATERIAL IN INDUSTRIAL ARTS, 2 credits

Analysis of industrial arts objectives for curriculum content; emphasis by school and credit level; criterion of content selection and appraisal; student evaluation; curriculum construction in the areas of visual communications, power, and industrial materials.

Prerequisite: Four credit hours in industrial arts education courses.

Two credit hours each week.

IA Ed 440 PRINCIPLES AND PRACTICES OF INDUSTRIAL ARTS TEACHING, 2 credits

A requirement of prospective industrial arts teachers in order that they may master a few of the fundamental principles, procedures and techniques of industrial arts teaching.

Three class hours each week.

IA Ed 450 STUDENT TEACHING, 12 credits

Observation and participation in all teaching and activities related to the performance of a teacher's work, in the area of the student's specialization.

Prerequisite: A general quality point average of C or 2.0 and a 2.0 in a major field. The student spends full time in actual classroom teaching for a trimester of sixteen weeks.

IA Ed 451 PROFESSIONAL PRACTICUM AND SCHOOL LAW, 2 credits

Methods and practices of teaching. General techniques of teaching and techniques for the students' special fields. Pennsylvania school laws relevant to the work of the classroom teacher. Problems encountered by the students in their student teaching. Must be scheduled with IA Ed 450.

Two class hours each week.

LABORATORY AND DRAWING AREAS

IA 100 FUNDAMENTALS OF WOODWORKING, 3 credits

A study of the basic woodworking techniques with emphasis on the hand tool skills. An introduction of the basic woodworking machines including portable power tools. Maintenance, care, and safe operation of both tools and equipment are stressed.

Two demonstration and four laboratory hours each week.

IA 101 GRAPHIC COMMUNICATIONS I, 3 credits

Graphic Communications I is the first of two required courses in the visual communications area. The student is given an opportunity to develop skills by applying principles of layout and design to letterpress techniques, screen process printing, block printing, stereotype casting, and bindery operations.

Two demonstration and four laboratory hours each week.

IA 150 INTRODUCTORY MECHANICAL DRAWING, 2 credits

Mechanical drawing with the major emphasis upon blueprint reading, sketching, and the theory of parallel projection including oblique and orthographic.

Four laboratory hours each week.

IA 151 GRAPHIC COMMUNICATIONS II, 3 credits

Graphic Communications II is the second required course in the visual communications area. Graphic Communications I is a prerequisite for this course. Emphasis is placed on understanding the structure, processes and the products of the graphic communications industry. Learning experiences with tools, materials, equipment, and processes represented by this industry will be provided for students to explore and gain understanding. Instruction in spirit duplicating, mimeographing techniques, strike on composition, photo composition, darkroom techniques, and offset lithography operations are included in the course.

Two demonstration and four laboratory hours each week.

IA 200 FUNDAMENTALS OF METALWORKING, 3 credits

An introductory course in metalworking giving instruction in sheet metal, forging and heat treating, bench metalworking, oxyacetylene brazing, and basic welding practices. Emphasis is placed on the safe use and care of metalworking tools and construction. This course must be scheduled with IA 250.

Two demonstration and four laboratory hours each week.

IA 201 FUNDAMENTALS OF MACHINE, 3 credits

Instruction in the operation of hand and machine tools, including the engine lathe, milling machine, and shaper. Basic foundry techniques are included.

Two demonstration and four laboratory hours each week.

IA 202 POWER TECHNOLOGY, 3 credits

Sources and applications of power are studied. The theory of the internal combustion engine, its uses, types, construction and functions are included. Emphasis is placed upon basic hydraulics, pneumatics, and instrumentation.

Two demonstration and four laboratory hours each week.

IA 250 SURFACE DEVELOPMENT AND DESIGN, 2 credits

A study of surface developments utilizing simple, parallel, radial, and triangulation techniques. Emphasis is placed on designing functional metalworking projects. This course must be scheduled with IA 200.

Prerequisite: IA 150.

Four laboratory hours each week.

IA 251 MACHINE DRAWING, 2 credits

Provides experiences in problem solving with reference to technical working drawings. Special emphasis is placed on American Standards drawing practices, shop processes, conventional representation, standardization of machine parts and fasteners, preparation of tracings and the reproduction of industrial working drawings.

Prerequisite: IA 150.

Four laboratory hours each week.

IA 300 ELECTRICITY-ELECTRONICS I, 3 credits

The fundamental theory of electricity is studied with emphasis on the effects of resistors, capacitors and inductors as used in direct and alternating current circuits. Practice is given in the use of Ohm's Law, power formula and Kirchhoff's Laws. Laboratory experiences parallel the theory presentation and provide application of circuit principles and the use of tools and equipment basic to the area.

Prerequisite: College Algebra.

Six laboratory hours each week.

IA 301 CERAMICS, 3 credits

An introduction to ceramics as an art, a craft, an industrial pursuit, and an educational vehicle. Students are taught the major forming, decorating, and firing process in clay. Originality in ceramic design, sensitivity to tools and materials and technical proficiency are stressed.

Two demonstration and four laboratory hours each week.

IA 302 ADVANCED WOODWORKING, 3 credits

Principally a course in machine woodworking. Safe operation of all basic woodworking machines is demonstrated. Students make projects involving operations in all basic machines. Spray finish method and techniques are demonstrated. Maintenance of equipment is discussed.

Prerequisite: IA 100 and IA 150.

Two demonstration and four laboratory hours each week.

IA 303 CRAFTS, 3 credits

An introduction to the Crafts is provided in this course. Creative craftwork is done in a variety of media such as clay, metal, wood, and mosaic. Creative and aesthetic design is stressed as well as attainment of technical proficiency.

The student is made aware of the vital and significant role of crafts in life and education.

Two demonstration and four laboratory hours each week.

IA 304 METAL DESIGN AND FABRICATION I (Ferrous Metals), 3 credits

A study of traditional and contemporary ornamental iron design and fabricating techniques. Emphasis is placed upon individual project design and construction. Students practice the techniques of hot and cold metal forming, riveting, brazing, and welding. Instruction is given relative to surface treatment of ferrous metals.

Prerequisite: IA 200.

Two demonstration and four laboratory hours each week.

IA 305 JEWELRY MAKING, 3 credits

The creative and aesthetic application of the fundamental processes of jewelry making are presented. Handwrought brooches, necklaces, bracelets, rings, and other types of jewelry are designed by the student. In addition, the student is introduced to the supplementary crafts of lapidary and enameling usually associated with jewelry making. Originality in design, aesthetic sensitivity, and craftsmanship are stressed.

Two demonstration and four laboratory hours each week.

IA 306 PLASTICS, 3 credits

A general introduction to the history and development of plastics with emphasis on industrial applications including the designing of molds and forms, molding problems and processes.

Two demonstration and four laboratory hours each week.

IA 307 LEATHERCRAFT, 3 credits

Such fundamental leathercraft techniques as carving, skiving, tooling, finishing, sewing, and lacing of leather is stressed, a problematic approach to designing in leather is stressed, thus assuring originality of design and self-expression. Through creative and aesthetic experiences, leathercraft becomes an art expression.

Two demonstration and four laboratory hours each week.

IA 308 FOUNDRY, 3 credits

For students who wish to major in the field of metalworking. The course is concerned with techniques in metal casting. Foundry procedures and processes that permit an increase in scope of the school metalworking program are covered.

Two demonstration and four laboratory hours each week.

IA 309 METAL DESIGN AND FABRICATION II (Non-Ferrous Metal), 3 credits

Provides experience in planning and development of jigs and fixtures; forging of stamping and chasing tools; making tools for die cutting and the cutting of dies. Organization of teaching materials and curriculum development.

Prerequisite: IA 200.

Two demonstration and four laboratory hours each week.

IA 311 FUNDAMENTALS OF PHOTOGRAPHY, 3 credits

This course deals with the fundamental and advanced problems of Photography. It includes the study and care of cameras, picture compositions, developing,

contact printing, enlarging, dodging, toning and photo finishing. Special problems are assigned to individual students.

Two demonstration and four laboratory hours each week.

IA 350 ELECTRICITY-ELECTRONICS II, 3 credits

Special emphasis is placed on the study of the fundamentals of vacuum tubes and semiconductors as applied in circuits including power supplies, amplifiers, oscillators, and the superhetrodyne receiver. Laboratory experiences are performed on experimental circuits in correlation with the theory presentation along with practical circuit applications.

Prerequisite: Electricity-Electronics I.

Six laboratory hours each week.

IA 351 INDUSTRIAL ARTS DESIGN, 2 credits

Design is studied as a process made up of three major components; the creative, the aesthetic, and the technical. Students experience design creatively and aesthetically by actively participating in a series of design problems which stress the sensitive use of the elements and principles. Creative thinking and aesthetic sensitivity are encouraged and developed.

Prerequisite: IA 151.

Four laboratory hours each week.

IA 352 ARCHITECTURAL DRAFTING, 2 credits

Design experience is provided in a basic residence planning. The fundamental sequences in designing and drawing a residence are stressed and the student completes all architectural drawings necessary for construction. Elements of the course include: architectural styles, area planning, structural detailing, pictorial rendering, building specifications and cost analysis.

Four laboratory hours each week.

IA 353 LABORATORY PLANNING, 2 credits

Experience is provided in all phases of modern industrial arts laboratory planning. The student proceeds through the entire sequence of laboratory planning from the original design to the completion of all drawings necessary for the construction of industrial arts facilities. The major units of the course include: types of industrial arts programs, principles of laboratory planning, equipment selection, architectural and engineering practices, and evaluation of industrial arts facilities.

Four class hours each week.

IA 400 INDUSTRIAL ELECTRICITY-ELECTRONICS, 3 credits

Theory and experiences associated with the various types of alternating current and direct current motors, the methods of controlling motors, especially those employing thyatron tubes, phototubes, transistors, silicon controlled rectifiers, and timing devices. Study will also be made on transformer principles, generators and high voltage transmission. Experiences will include practice in the use and operation of these circuits.

Prerequisite: IA 300 and IA 350.

Six laboratory hours each week.

IA 401 PATTERNMAKING, 3 credits

For students who wish to major in woodworking in preparation for teaching a unit shop. Basic principles involved in the making of wood patterns and

core boxes are stressed. Techniques are demonstrated. Patterns and core boxes made by students are used in the school foundry.

Prerequisite: IA 100 and IA 302.

Two demonstration and six laboratory hours each week.

IA 402 ADVANCED MACHINE, 3 credits

Experience in the operation of the milling machine, shaper, the drill press, and the engine lathe; in indexing and in the heat treatments of metals. Special emphasis is placed upon assembly and mass production.

Prerequisite: IA 201.

Two demonstration and six laboratory hours each week.

IA 403 FURNITURE DESIGN AND CONSTRUCTION, 3 credits

Basic principles of furniture construction and upholstery are presented. Emphasis is placed on individual instruction in methods and techniques of teaching modern methods of upholstering for the junior and senior high school student.

Prerequisite: IA 100 and IA 302.

Two demonstration and four laboratory hours each week.

IA 404 ADVANCED GRAPHIC COMMUNICATIONS, 3 credits

Advanced Graphic Communications is an advanced elective course in the visual communications area. Prerequisites for this course are Graphic Communications I and II. The course is structured so as to provide the student with gainful experiences in techniques of photographic screen process printing, process photography, paper making, laboratory safety, laboratory planning, and laboratory maintenance.

Prerequisite: IA 101 and IA 151.

Two demonstration and four laboratory hours each week.

IA 405 SPECIAL MACHINE, 3 credits

Project work utilizing special machine techniques. Admission only by consent of the instructor.

Two demonstration and six laboratory hours each week.

IA 406 ELECTRONIC COMMUNICATION CIRCUITS, 3 credits

A study of the theory of radio transmitters, FM receivers, single sideband techniques and microwave transmission. Practical experiences will be provided with selected techniques of electronic communications.

Prerequisite: IA 300 and IA 350.

Six laboratory hours each week.

IA 407 TELEVISION CIRCUITS, 3 credits

The theory of operation of the various stages of black and white receivers as well as color television receivers and television transmission. Practical experiences will be provided in the trouble shooting and operating techniques of the various stages of each system.

Prerequisite: IA 300 and IA 350.

Six laboratory hours each week.

IA 409 OFFSET-LITHOGRAPHY, 3 credits

An introduction to the basic principle of the offset-lithography printing process. Specific areas of work to include copy preparation, photography as applied to lithography, photo-lithography camera operation, stripping, platemaking and

press operation. Historical aspects, advantages of lithography, and current industrial practices and procedures are discussed thoroughly.

Prerequisite: IA 101 and IA 151.

Two demonstration and six laboratory hours each week.

IA 410 FUNDAMENTALS OF AUTO MECHANICS, 3 credits

Credit is given for work taken at General Motors Training Center.

IA 411 ADVANCED AUTO MECHANICS, 3 credits

Credit is given for work taken at General Motors Training Center.

IA 461 ADVANCED TECHNICAL DRAWING, 2 credits

Special emphasis is placed upon the basic principles involved in machine design. The possibilities and limitations of the common metals, mechanical movements, and the use of fasteners, and the application of machine fits are stressed.

Prerequisite: IA 150 and IA 251.

Four laboratory hours each week.

IA 462 BLUEPRINT READING, 2 credits

This is a beginning course in blueprint reading designed for people enrolled in the college as well as industrial workers. Simplified drafting practices and structural, topographic, and welding drawings are studied. Industrial arts majors do not receive credit towards curriculum requirements.

Four laboratory hours each week.

IA 490 HONORS CREDITS IN INDUSTRIAL MATERIALS, VA

The student must have a B grade or above in the prerequisite courses in the area.

IA 491 HONORS CREDITS IN INDUSTRIAL ARTS POWER, VA

The student must have a B grade or above in the prerequisite courses in the area.

IA 492 HONORS CREDITS IN INDUSTRIAL ARTS VISUAL COMMUNICATIONS, VA

The student must have a B grade or above in the prerequisite courses in the area.

IA 493 STUDIES IN INDUSTRIAL MATERIALS, 2 or 3 credits

An advanced course in industrial materials involving independent study and research. Admission by consent of the instructor. Prior approval of a project proposal submitted in writing by the student is required.

Prerequisite: IA 100, IA 200, IA 201, and IA 302.

IA 494 STUDIES IN POWER, 2 or 3 credits

An advanced course in power technology involving independent study and research. Admission by consent of the instructor. Prior approval of a project proposal submitted in writing by the student is required.

Prerequisite: IA 202, IA 300, and IA 350.

IA 495 STUDIES IN VISUAL COMMUNICATIONS, 2 or 3 credits

An advanced course in visual communications involving independent study and research. Admission by consent of the instructor. Prior approval of a project proposal submitted in writing by the student is required.

Prerequisite: IA 101, IA 150, IA 151, IA 250, and IA 251.

MATHEMATICS DEPARTMENT

Math 101 FUNDAMENTALS OF MATHEMATICS, 3 credits

This course shall encompass a variety of topics in mathematics for students of various desires, interests, and backgrounds. Thus the student may utilize the course for terminal study or as a foundation course toward further or deeper study in mathematics. Hence, the course shall contain topics introducing Number Theory, Arithmetic, Algebra, Geometry, Probability and Logic.

Three class hours each week.

(Math majors may not take this course for credit.)

Math 102 COLLEGE ALGEBRA, 3 credits

A review of the fundamentals of Algebra for terminal students, as well as a basic foundation for majors in natural and social sciences.

Prerequisite: Three years of high school mathematics or honor grade in Fundamentals of Mathematics.

Three class hours each week.

(Math majors—does not count toward math major.)

Math 102 COLLEGE ALGEBRA (Special), 3 credits

The course is designed to provide a firm algebraic foundation for study of the calculus. Careful attention is paid to the structure of the real number system, its properties, and the associated vocabulary. Topics include: quadratics, basic theory of equations, absolute value and inequalities, determinants and systems of equations, logarithmic and exponential functions, sequences and series. A strong effort is made throughout to develop the student's skill in solving verbal problems.

Three class hours each week.

Math and Science majors only.

Math 103 COLLEGE TRIGONOMETRY, 3 credits

This course is to develop a broader understanding of trigonometry foundations and identities through a coordinate plane approach and to provide an extension of logarithms through the base. It will also stress the graphical representations of the trigonometric and logarithmic functions along with their inverses.

Three class hours each week.

(Does not count toward math majors.)

Math 103 COLLEGE TRIGONOMETRY (Special), 3 credits

Emphasis on circular function point of view, although degree measure and radian measure are considered. This course is not unlike the standard trigonometry course, but more of and in depth. Each topic is motivated by the calculus and the student is made aware of when, and in what context, he may expect to encounter a given concept.

Three class hours each week.

Math and Science majors only.

Math 107 DATA PROCESSING I, 3 credits

This course shall cover topics such as binary, octal, and hexadecimal number systems, fixed point and floating point computations, stored program concepts, Fortran coding.

Prerequisite: Math 102.

Three class hours each week.

Math 110 ANALYTIC GEOMETRY, 3 credits

This course consists substantially of the topics usually covered in a first course of analytic geometry with emphasis on the basic principles which are needed in calculus and later math courses. Topics included: line, conics, simplification of equations, graphing, polar coordinates, and parametric equations.

Prerequisite: Math 102, 103.

Three class hours each week.

Math 111 CALCULUS I, 3 credits

Rectangular Cartesian Coordinates, the Straight Line, Functions and Graphs, the Derivative, Limits, Differentiation of Algebraic Functions, Continuity, Applications of the Derivative, Introduction to the Indefinite Integral.

Prerequisite: CEEB Math Score, 550 or better and honor grades in high school Algebra II and Trigonometry or College Algebra. All mathematics and science majors unable to start this course will take College Algebra and Trigonometry in addition to meeting other requirements.

Math 112 CALCULUS II, 3 credits

Differentiation and Integration of Sines and Cosines, the Definite Integral Applications of the Definite Integral, Differentiation and Integration of Transcendental Functions, Techniques of Integration.

Prerequisite: Math 111.

Three class hours each week.

Math 113 GEOMETRY, 3 credits

This course begins with a study of the axiomatic method, particularly in geometry. Then a critical re-examination and study of Euclidean geometry is undertaken. An introductory study of non-Euclidean geometries will be undertaken.

Three class hours each week.

Math 150 DIAGNOSTIC AND REMEDIAL MATHEMATICS, 3 credits

This course is an elective for Elementary majors specializing in mathematics. Methods of determining pupil difficulties in arithmetic and techniques for correcting deficiencies in mathematical literacy will be stressed.

Prerequisite: Math 102, 103.

Three class hours each week.

Math 160 INTUITIVE GEOMETRY, 3 credits

This course is designed to develop intuitively many basic concepts of geometry such as congruence, similarity, measure, symmetry and others through lectures, group projects and activities, individual projects and activities. The role of geometry in the elementary school will be emphasized.

Prerequisite: high school geometry.

Three class hours each week.

Math 170 BASIC CALCULUS, 3 credits

This course is a specifically designed course for the Elementary majors specializing in Mathematics. It will develop the ideas and techniques of limits, continuity, the derivative, and the integral without dwelling on the delta-epsilon approach. The basic application of the calculus will be of primary interest.

Prerequisite: Math 102, 103.

Three class hours each week.

Math 204 ABSTRACT ALGEBRA, 3 credits

The number system, number theory, elementary theory of groups, rings, integral domain, fields, matrices and determinants.

Prerequisite: Math 111.

Three class hours each week.

Math 205 FIELD WORK IN MATHEMATICS, 3 credits

This course is an enriching as well as practical usage of mathematics for secondary school mathematics. It applies mathematics to the area of measurement. The use of the transit, sextant, hypsometer, angle mirror and plane table and other measuring instruments will be studied. Elementary land surveying, note taking and translation of notes into simple maps will be emphasized. The slide rule and calculator will be utilized. Construction and use of student made instruments will be encouraged.

Prerequisite: Math 103.

Three class hours each week.

Math 207 DATA PROCESSING II, 3 credits

To solidify the concepts and methods acquired in Math 107. Advanced Fortran, Evaluation of Functions, Error Analysis, Graphic Computer Methods, Quadrature, Curve Fitting, Interpolation and Differentiation, Operating Systems, Basic Assembly Programming.

Prerequisites: Math 107, 112 or consent of instructor.

Three class hours each week.

Math 210 STATISTICS, 3 credits

This course is for non-math majors, and is not counted toward a math major. Frequency distribution, percentiles, measures of central tendency, variability, normal distribution curve, populations, samples and error—sampling distribution of means, sampling distribution of proportion—null and alternative hypotheses, type I and type II errors, tests of means, confidence and intervals and decision procedures, correlation, chi-square, simple analysis of variance, statistics and design of experiments.

Prerequisite: Math 102.

Three class hours each week.

Math 211 CALCULUS III, 3 credits

Plane Analytic Geometry, Polar Coordinates, Vectors and Parametric Equations, Introduction to Linear Algebra, Vector Functions and their Derivatives.

Prerequisite: Math 112.

Three class hours each week.

Math 212 CALCULUS IV, 3 credits

Partial Differentiation, Multiple Integrals, Infinite Series.

Prerequisite: Math 211.

Three class hours each week.

Math 302 THEORY OF EQUATIONS, 3 credits

Complex numbers; theorems involving polynomials in one variable; cubic and biquadratic equations; separations of roots, Sturm's theorem and approximate evaluation of roots.

Prerequisite: Math 112.

Three class hours each week.

Math 303 DIFFERENTIAL EQUATIONS, 3 credits
Elementary ordinary differential equations and their use in a wide variety of applications in geometry, engineering and physical sciences; methods employing symbolic operators; approximations, techniques and series solution.

Prerequisite: Math 212.

Three class hours each week.

Math 304 ABSTRACT ALGEBRA II, 3 credits

This is a continuation of Math 204.

Prerequisite: Math 204.

Three class hours each week.

Math 305 LINEAR ALGEBRA I, 3 credits

The beginning of the course covers matrix theory for handling systems of linear equations and the introduction of vector spaces. The remainder of the course is treatment of the characteristic value problems including a discussion of normal matrices and culminating with a discussion of the Jordan canonical form.

Prerequisite: Math 112, Math 204, and Math 113.

Three class hours each week.

Math 306 LINEAR ALGEBRA II, 3 credits

This is a continuation of Math 305.

Prerequisite: Math 305.

Three class hours each week.

Math 307 ASSEMBLER LANGUAGE, 3 credits

This course is to acquaint the student with the full instruction set of a modern computer. This is a discussion of the software of a contemporary computing system including: supervisor, loader, library, and assembler. There will be many computer programs assigned during the semester period.

Prerequisite: Math 107.

Three class hours each week.

Math 314 STATISTICAL ANALYSIS I, 3 credits

This course will commence with a study of probability theory. The development of general and specific discrete and continuous probability models and consideration of some statistical applications of the above models.

Prerequisite: Math 111 and Math 112.

Three class hours each week.

Math 315 STATISTICAL ANALYSIS II, 3 credits

This is a continuation of Math 314.

Prerequisite: Math 314.

Three class hours each week.

Math 390 MATHEMATICAL INSIGHTS, 3 credits

To provide elementary mathematics majors with an adequate introduction to logic, set theory, functions, relations, probability and some modern algebra.

Prerequisite: Math 150, Math 160, Math 170.

Three class hours each week.

Math 401 ADVANCED CALCULUS I, 3 credits

Lectures and problem solving in the study of functions, sequences, limits, differentiability and integration. Much stress is placed on definitions and integration formulas.

Prerequisite: Math 212.

Three class hours each week.

Math 402 ADVANCED CALCULUS II, 3 credits

Lectures and problem solving in the study of vectors, functions of several variables, and convergence. Much stress is placed on definitions and theorems concerning these topics.

Prerequisite: Math 401.

Three class hours each week.

Math 406 TOPOLOGY, 3 credits

To provide an introduction to point-set topology and specifically to generate within the student some understanding of how analysis and geometry complement each other and give birth to topology. Also to develop an appreciation for topology in its own right. Topics to be considered: Sets, ordering, relations, cardinality, etc., metric spaces, topologies, separation axioms, convergence, coverings, compactness.

Prerequisite: Math 212 and Math 305 or consent of instructor.

Three class hours each week.

Math 407 NUMERICAL ANALYSIS, 3 credits

Error analysis, nonlinear equations, interpolation, differentiation and integration, matrices and system of linear equations, differential equations.

Prerequisite: Math 107, Math 212 or consent of instructor.

Three class hours each week.

Math 420 MATHEMATICS OF FINANCE, 3 credits

The presentation of the above topic is from a purely algebraic approach. Although some economic theory and philosophy will be discussed in each of the areas covered.

Prerequisite: College Algebra.

Three class hours each week.

Math 490 HONORS COURSE IN MATHEMATICS, 3 credits

Individual study and research on topics and materials not covered by regular course work in mathematics.

Prerequisite: 64 credits completed or scheduled with a QPA 3.25 in all work, recommendation of the mathematics faculty, approval of the Department Head and the Dean of Instruction.

Three class hours each week.

Math 495 SEMINAR IN MATHEMATICS, 1 credit

Prerequisite: 18 hours of mathematics.

Math 496 SEMINAR IN MATHEMATICS, 2 credits

Prerequisite: 18 hours of mathematics.

Math 497 SEMINAR IN MATHEMATICS, 3 credits

Prerequisite: 18 hours of mathematics.

MODERN LANGUAGE DEPARTMENT

One hour of Language Laboratory Study per week is required of all language students.

FRENCH

Fr 101 ELEMENTARY FRENCH I, 3 credits

For the student without previous knowledge of French. This course is devoted to the development of the fundamentals of correct idiomatic French. The student is made aware of basic sound patterns and sentence structures emphasizing at first hearing and speaking then reading and writing. Classroom instruction is supplemented by laboratory study and practice.

Three class hours each week and one hour language laboratory per week.

Fr 102 ELEMENTARY FRENCH II, 3 credits

A continuation of French 101 for students who wish to increase their aural comprehension, their speaking ability and their reading and writing skills.

Prerequisite: French 101 or one year of high school French.

Three class hours each week and one hour language laboratory per week.

Fr 103 INTERMEDIATE FRENCH I, 3 credits

(French grammar and reading.) For students who have completed French 101 and 102 or two years of high school French. This course provides a review of essential French grammar and further develops audiolingual comprehension as well as reading and writing facility.

Prerequisite: French 101 and 102 or two years of high school French.

Three class hours each week and one hour language laboratory per week.

Fr 104 INTERMEDIATE FRENCH II, 3 credits

Continuation of Fr 103. After a short review of grammar, structural patterns are further developed through reading and discussion of selected prose writings of modern authors.

Prerequisite: Fr 103 or equivalent.

Three class hours and one hour language laboratory each week.

Fr 201 FRENCH CONVERSATION AND COMPOSITION, 3 credits

Cultural themes are used as a basis for idiomatic conversation and discussions; written compositions are assigned to teach the student how to write correct French.

Prerequisite: Fr 104.

Three class hours and one hour language laboratory per week.

Fr 202 FRENCH CONVERSATION, COMPOSITION AND PHONETICS, 3 credits

Continuation of Fr 201 on a more advanced level as reflected in representative authors and a study of the essential phonetics needed in conversation.

Prerequisite: Fr 201 or completion of Fr 104 with the grade A or B.

Three class hours and one hour language laboratory per week.

Fr 205 FRENCH CULTURE AND CIVILIZATION I, 3 credits

A study of the most significant aspects of French history from the Middle Ages to modern times. The selections will be from literary works and other prose

writings with discussions on the social, political, economic and cultural aspects of France.

Prerequisite: Fr 201 or 202 or permission.

Three class hours and one hour language laboratory per week.

Fr 206 FRENCH CULTURE AND CIVILIZATION II, 3 credits

Continuation of Fr 205 with more emphasis on recent times as well as discussions on current events in France.

Prerequisite: Fr 205 or permission.

Three class hours and one hour language laboratory per week.

Fr 301 SURVEY OF FRENCH LITERATURE I, 3 credits

A general survey of French literature from the Middle Ages to 1800.

Prerequisite: Twelve hours of French beyond Fr 102.

Three class hours each week.

Fr 302 SURVEY OF FRENCH LITERATURE II, 3 credits

A general survey of French Literature from 1800 to the present day.

Prerequisite: Twelve hours of French beyond Fr 102.

Three class hours each week.

Fr 316 FRENCH LITERATURE OF THE 16TH CENTURY, 3 credits

A study of French Literature from the Middle Ages through the 16th century.

Prerequisite: Fr 301 or Fr 302.

Three class hours each week.

Fr 317 FRENCH LITERATURE OF THE 17TH CENTURY, 3 credits

A study of French Literature of the 17th century.

Prerequisite: Fr 301 or Fr 302.

Three class hours each week.

Fr 318 FRENCH LITERATURE OF THE 18TH CENTURY, 3 credits

A study of 18th century thought and literature.

Prerequisite: Fr 301 or Fr 302.

Three class hours each week.

Fr 319 FRENCH LITERATURE OF THE 19TH CENTURY, 3 credits

A study of 19th century literature and social thought with emphasis on the romantic and realist periods.

Prerequisite: Fr 301 or Fr 302.

Three class hours each week.

Fr 320 FRENCH LITERATURE OF THE 20TH CENTURY, 3 credits

Fr 401 READINGS IN CONTEMPORARY FRENCH LITERATURE, 3 credits

Subject matter to be based on the writings of famous 20th century authors.

Prerequisite: Fr 301 or Fr 302.

Three class hours each week.

Fr 421 STUDIES IN FRENCH LITERATURE I, 1 credit

Subject matter to be arranged. The course is designed for French majors who wish to take one additional credit.

Prerequisite: 18 hours of French.

Fr 422 STUDIES IN FRENCH LITERATURE II, 2 credits

Subject matter to be arranged. The course is designed for French majors who wish to take two additional credits.

Prerequisite: 18 hours of French.

Fr 423 STUDIES IN FRENCH LITERATURE III, 3 credits

Subject matter to be arranged. The course is designed for French majors who wish to take three additional credits.

Prerequisite: 18 hours of French.

Fr 461 FIELD WORK IN FRENCH STUDIES I, 3 credits

Study outside the United States, usually in Canada or France. Subjects are to be chosen from courses to be offered in the French language at an established and accredited educational institution according to the interests and ability of the students.

Three class hours each week or according to the program of the institution.

Fr 462 FIELD WORK IN FRENCH STUDIES II, 3 credits

Study outside the United States, usually in Canada or France. Subjects are to be chosen from courses to be offered in the French language at an established and accredited educational institution according to the interests and ability of the student.

Three class hours each week or according to the program of the institution.

GERMAN

Ger 101 ELEMENTARY GERMAN I, 3 credits

For those who have had no previous instruction in German or who reveal insufficient training for more advanced level. This course is intended to develop the fundamental of correct idiomatic German through basic sound patterns and sentence structure. Language laboratory is used in conjunction with this and the following courses.

Three class hours and one hour language laboratory per week.

Ger 102 ELEMENTARY GERMAN II, 3 credits

Continuation of German 101. It contains more reading, and the speaking is more advanced.

Prerequisite: Ger 101 or one year of high school German.

Three class hours and one hour language laboratory per week.

Ger 103 INTERMEDIATE GERMAN I, 3 credits

The goals are understanding, speaking, reading, and writing on a more advanced level. It includes a review of the structural principles covered in Ger 101 and Ger 102, and additional structural material, idioms, etc., are presented. More emphasis is placed upon both speaking and reading.

Prerequisite: Ger 102 or two years of high school German.

Three class hours and one hour language laboratory per week.

Ger 104 INTERMEDIATE GERMAN II, 3 credits

Continuation of German 103, but speaking, reading, writing on a more advanced level.

Prerequisite: Ger 103.

Three class hours and one hour language laboratory per week.

Ger 201 GERMAN CONVERSATION AND COMPOSITION, 3 credits

Concentrates on the further development of knowledge and skill in speaking and writing, based upon a relatively small amount of reading which is particularly well adapted to this purpose.

Prerequisite: Ger 104.

Three class hours and one hour language laboratory per week.

Ger 202 GERMAN CONVERSATION, COMPOSITION, AND PHONETICS, 3 credits

Continuation of Ger 201, conducted on a more advanced level.

Prerequisite: Ger 201 or the completion of Ger 104 with the grade A or B.

Three class hours and one hour language laboratory per week.

Ger 205 GERMAN CULTURE AND CIVILIZATION I, 3 credits

Covers in outline the entire field of German literature with particular reference to the German people and their historical, political, economic and geographic background and to their art and folklore.

Prerequisite: Ger 104.

Three class hours and one hour language laboratory per week.

Ger 301 SURVEY OF GERMAN LITERATURE I, 3 credits

Background for study of the history of German Literature, presenting a foundation in literary definition (style, form, period) with examination of appropriate examples from the works of leading German-speaking authors.

Prerequisite: Twelve hours of German beyond Ger 102.

Three class hours each week.

Ger 302 SURVEY OF GERMAN LITERATURE II, 3 credits

Continuation of Ger 301.

Prerequisite: Twelve hours of German beyond Ger 102.

Three class hours each week.

Ger 317 ROMANTICISM: 1790-1830, 3 credits

Foundation course in understanding the German Romantic Weltanschauung as seen in major writers of the period (Novalis, E. T. A. Hoffman, Kleist, etc.).

Prerequisite: Ger 301 or Ger 302.

Three class hours each week.

Ger 318 REALISM TO NATURALISM: 1830-1870, 3 credits

A course dealing with ideas in transition, focusing on theory and practice in prose forms, drama, and poetry in the era immediately preceding German unification as reflected in works by writers of various nationalities (Grillparzer, Heine, Keller, etc.).

Prerequisite: Ger 301 or Ger 302.

Three class hours each week.

Ger 319 NATURALISM-IMPRESSIONISM: 1870-1920, 3 credits

Concentrated study of literary developments during the half century which witnessed the rise and fall of the German monarchies: writers represented (among others): Gerhart Haupmann, Hugo von Hofmannsthal, Franz Kafka, Rainer Maria Rilke and Thomas Mann.

Prerequisite: Ger 301 or Ger 302.

Three class hours each week.

Ger 320 GERMAN LITERATURE: 1920-1945, 3 credits

A study of the most recent developments in German Literature, with a special emphasis on understanding the impact of conflicting ideologies and aesthetics; Thomas Mann, Brecht, Grass and their contemporaries are the focal points.

Prerequisite: Ger 301 or Ger 302.

Three class hours each week.

Ger 421 STUDIES IN GERMAN LITERATURE I, 1 credit

Designed to meet special problems or deficiencies.

Prerequisite: 18 hours of German.

Ger 422 STUDIES IN GERMAN LITERATURE II, 2 credits

Designed to meet special problems or deficiencies.

Prerequisite: 18 hours of German.

Ger 423 STUDIES IN GERMAN LITERATURE III, 3 credits

Designed to meet special problems or deficiencies.

Prerequisite: 18 hours of German.

Ger 461 FIELD WORK IN GERMAN STUDIES I, 3 credits

Study outside the United States, usually in Germany. Subjects are to be chosen from courses to be offered in the German language at an established and accredited educational institution according to the interests and ability of the students.

Three class hours each week or according to the program of the institution.

Ger 462 FIELD WORK IN GERMAN STUDIES II, 3 credits

Study outside the United States, usually in Germany. Subjects are to be chosen from courses offered in the German language at an established and accredited educational institution according to the interests and ability of the student.

Three class hours each week or according to the program of the institution.

RUSSIAN

Rus 101 ELEMENTARY RUSSIAN I, 3 credits

For the student without previous knowledge of Russian. The student is made aware of basic sound patterns and sentence structures emphasizing at first hearing and speaking then reading and writing. Language laboratory is used in conjunction with this and the following course.

Three class hours and one hour laboratory per week.

Rus 102 ELEMENTARY RUSSIAN II, 3 credits

Continuation of Russian 101. It contains more reading, and the speaking is more advanced.

Prerequisite: Russian 101 or one year of high school Russian.

Three class hours and one hour laboratory per week.

Rus 103 INTERMEDIATE RUSSIAN I, 3 credits

An adequate review of the essentials of Russian grammar through intensive oral structures and written practice to facilitate the use of Russian grammar, and to develop the use of words and expressions that are accepted throughout the world.

Rus 104 INTERMEDIATE RUSSIAN II, 3 credits

To develop a reasonable control of the principal structure patterns through dialogue, oral, reading and writing practice from reading of modern authors.

SPANISH

Span 101 ELEMENTARY SPANISH I, 3 credits

For the student without previous knowledge of Spanish who wishes to achieve a sound basis for an active command of the language. The course is devoted to the development of the fundamental speech skills which are reinforced in the language laboratory. Progressively greater emphasis is placed on reading and writing.

Three class hours and one hour language laboratory per week.

Span 102 ELEMENTARY SPANISH II, 3 credits

A continuation of Span 101 for students who wish to increase oral comprehension, their speaking ability, and their reading and writing skills.

Prerequisite: Span 101 or one year of high school Spanish.

Three class hours and one hour language laboratory per week.

Span 103 INTERMEDIATE SPANISH I, 3 credits

An adequate review of the essentials of Spanish grammar through intensive oral structures and written practice to facilitate the use of Spanish grammar, and to develop the use of words and expressions that are accepted throughout the Spanish-speaking world.

Prerequisite: Span 101 and Span 102 or their equivalents.

Three class hours and one hour language laboratory per week.

Span 104 INTERMEDIATE SPANISH II, 3 credits

To develop a reasonable control of the principal structure patterns through dialogue, oral, reading, and writing practice from reading of modern authors.

Prerequisite: Span 103.

Three class hours and one hour language laboratory per week.

Span 201 SPANISH CONVERSATION, COMPOSITION, AND PHONETICS I, 3 credits

Intensive practice based on modern prose, to provide the students with models of natural, spontaneous speech which includes both cultural themes and colloquialism, up-to-date dialogues on which to base class discussions. Written compositions using orthographic rules and an introduction to teach the student how to write in Spanish.

Prerequisite: Span 104.

Three class hours and one hour language laboratory per week.

Span 202 SPANISH CONVERSATION, COMPOSITION, AND PHONETICS II, 3 credits

A study of the essential Spanish morphology, syntax, semantics, and linguistics as reflected in some representative authors in order to confront the student with new ways of writing and thinking that will prepare him for the Spanish Culture and Civilization courses.

Prerequisite: Span 104.

Three class hours and one hour language laboratory per week.

Span 205 CULTURE AND CIVILIZATION OF SPAIN, 3 credits

A study of the most significant aspects of Spanish history, early and contemporary trends, with a broad discussion of their essential characteristics and their contribution to Western Civilization, therefore stimulating thought on the social, political, economic and cultural problems which constitute the themes of Spanish history.

Prerequisite: Span 201 or Span 202.

Three class hours each week and one hour language laboratory per week.

Span 206 CULTURE AND CIVILIZATION OF HISPANIC-AMERICA, 3 credits

A study of the early pre-colombian cultures of the Spanish-American countries and the impact of the Spanish conquest upon the peoples of these countries. Wider appreciation of the psychological elements that have made their imprint upon the people who live in these lands today, and to examine the contemporary political, economic, literary, artistic, and scientific movements in the most important republics of Hispanic-America and their relationship to the United States at large.

Prerequisite: Span 201 or Span 202.

Three class hours and one hour laboratory each week.

Span 301 SURVEY OF SPANISH LITERATURE, 3 credits

An introduction to the masterpieces of Spanish literature ranging from "Poema de Mio Cid" to the current authors who represent all of the important Spanish literary genres, such as narrative poetry (epic and ballad), lyric verse, the short story, and also selections from novels and dramas. This course will provide an introduction to critical literary evaluation.

Prerequisite: Twelve hours of Spanish beyond Span 102.

Span 302 SURVEY OF SPANISH-AMERICAN LITERATURE, 3 credits

A study of representative selections from the colonial period to present a comprehensive picture of the setting in which Spanish-American Literature has developed, with emphasis on the salient characteristics and the distinctive contributions of each literary form in the period or movement under study. This course will provide an introduction to critical literary evaluation.

Prerequisite: Twelve hours of Spanish beyond Span 102.

Span 304 SPANISH SHORT STORY, 3 credits (Not currently offered)

The development of this narrative form will be examined. Selections from the principal writers will include the period of the Poema del Cid, the picaresque era, and modern times.

Prerequisite: Span 301 or 302.

Span 305 CERVANTES: DON QUIJOTE, 3 credits

A study of the works of Cervantes with emphasis on Don Quijote.

Prerequisite: Span 301 or 302.

Span 307 THE GENERATION OF 1898, 3 credits

A study of novels, short stories, essays, poetry and dramas of the most representative authors of this period and their influence on modern Spanish Literature.

Prerequisite: Span 301 or 302.

Span 308 GOLDEN AGE DRAMA, 3 credits

A study of the verse dramas which illustrate the dramatic techniques and themes prevalent in Spain between 1600 and 1700.

Prerequisite: Span 301 or 302.

Span 309 GOLDEN AGE NOVEL, 3 credits

The major prose works of the Renaissance and Baroque styles: The Pastoral, Chivalric, and Picaresque Novels.

Prerequisite: Span 301 or 302.

Span 401 READINGS IN THE LITERATURE OF SPAIN AND
HISPANIC-AMERICA, 3 credits

This course is designed for Spanish majors wishing to study in depth authors of Spain and Hispanic-America. Works to be selected.

Prerequisite: Span 301 or 302.

Span 421 STUDIES IN SPANISH LITERATURE I, 1 credit

For the benefit of teachers in service to meet special problems or deficiencies.

Prerequisite: 18 hours of Spanish.

Span 422 STUDIES IN SPANISH LITERATURE II, 2 credits

For the benefit of teachers in service and to meet special problems or deficiencies.

Prerequisite: 18 hours of Spanish.

Span 423 STUDIES IN SPANISH LITERATURE III, 3 credits

For the benefit of teachers in service and to meet special problems or deficiencies.

Prerequisite: 18 hours of Spanish.

Span 461 FIELD WORK IN SPANISH STUDIES I, 3 credits

Study outside the United States, usually in a Spanish language at an established and accredited educational institution according to the interests and ability of the student.

Prerequisite: Consent of the instructor.

Three class hours each week or according to the program of the institution.

Span 462 FIELD WORK IN SPANISH STUDIES II, 3 credits

Study outside the United States, usually in a Spanish-speaking country. Subjects are to be chosen from courses to be offered in the Spanish language at an established and accredited educational institution according to the interests and ability of the student.

Prerequisite: Consent of the instructor.

Three class hours each week or according to the program of the institution.

MUSIC DEPARTMENT

Mus 101 PRIVATE VOICE I, 1 credit

Mus 102 PRIVATE VOICE II, 1 credit

Mus 103 PRIVATE VOICE III, 1 credit

Mus 110 INSTRUMENTAL ENSEMBLE — BRASS I, 1 credit

Mus 120 INSTRUMENTAL ENSEMBLE — PERCUSSION I, 1 credit

Mus 121 PRIVATE INSTRUMENTAL — BRASS I, 1 credit

Mus 141 PRIVATE INSTRUMENTAL — PIANO I, 1 credit

Mus 151 PRIVATE INSTRUMENTAL — PERCUSSION I, 1 credit

Mus 161 PRIVATE INSTRUMENTAL — ORGAN I, 1 credit

Mus 180 COLLEGE BAND I, 1 credit

Entrance by interview with Band Director. Required attendance at rehearsals and all public performances. Band meets 5th period, five (5) times a week during football season and four (4) times a week during concert season.

Mus 181 COLLEGE CHOIR I, 1 credit

Entrance by interview with Choir Director. Required attendance at rehearsals and all public performances. Choir meets 5th period, Monday, Wednesday and Friday. One additional section rehearsal per week.

Mus 182 MEN'S GLEE CLUB I, 1 credit

Entrance by interview with Men's Glee Club Director. Required attendance at rehearsals and all public performances. Men's Glee Club meets 5th period, Tuesday and Thursday.

Mus 183 WOMEN'S GLEE CLUB I, 1 credit

Entrance by interview with Women's Glee Club Director. Required attendance at rehearsals and all public performances. Women's Glee Club meets 5th period, Monday, Wednesday and Friday.

Mus 201 INTRODUCTION TO MUSIC, 2 credits

This course provides an orientation in music experience which aims to equip the prospective teacher with a knowledge and understanding of music as it relates to general education and the art of daily living. Through the use of recordings, radio, concerts, and other media, every possible contact is made with music. The possibility of correlation with other subjects is explored. This course is required of all sophomores in general education. No prerequisite courses or special abilities are required. (One class hour may be integrated with World Culture II.)

Two class hours each week.

Mus 210 INSTRUMENTAL ENSEMBLE — BRASS II, 1 credit

Mus 211 CLASSICAL VOICE I, 1 credit

Mus 212 CLASSICAL VOICE II, 1 credit

Mus 213 FUNDAMENTALS OF THEORY, 2 credits

Includes all theory of Fundamentals of Music but covers it in greater detail. Fundamentals of Theory does not include Keyboard, Harmony, Ear Training or Sight Singing; as it is meant to be an "in-depth" course in theory funda-

mentals only. Designed particularly for Area of Interest students in lieu of Fundamentals of Music.

Two class hours each week.

Mus 220 INSTRUMENTAL ENSEMBLE — PERCUSSION II, 1 credit

Mus 221 PRIVATE INSTRUMENTAL — BRASS II, 2 credits

Mus 222 RHYTHMIC EXPERIENCES, 2 credits

The class is structured for those students in Elementary Education with music as their Area of Interest. The course may be an elective for anyone else who has a basic understanding of music fundamentals. The class has two basic aims: (1) to review and fortify previous knowledge and understanding of basic rhythms, meters, note values, sight reading and related problems associated with rhythm, (2) to present the students with skills and methods of presenting rhythmic activities in the elementary music curriculum. Students participate in actual performance experiences on tuned and non-tuned percussion instruments.

Two class hours each week.

Mus 241 PRIVATE INSTRUMENTAL — PIANO II, 1 credit

Mus 251 PRIVATE INSTRUMENTAL — PERCUSSION II, 1 credit

Mus 261 PRIVATE INSTRUMENTAL — ORGAN II, 1 credit

Mus 280 COLLEGE BAND II, 1 credit

Entrance by interview with Band Director. Required attendance at rehearsals and all public performances. Band meets 5th period five (5) times a week during football season and four (4) times a week during concert season.

Mus 281 COLLEGE CHOIR II, 1 credit

Entrance by interview with Choir Director. Required attendance at rehearsals and all public performances. Choir meets 5th period, Monday, Wednesday and Friday. One additional section rehearsal per week.

Mus 282 MEN'S GLEE CLUB II, 1 credit

Entrance by interview with Men's Glee Club Director. Required attendance at rehearsals and all public performances. Men's Glee Club meets 5th period, Tuesday and Thursday.

Mus 283 WOMEN'S GLEE CLUB II, 1 credit

Entrance by interview with Women's Glee Club Director. Required attendance at rehearsals and all public performances. Women's Glee Club meets 5th period, Monday, Wednesday and Friday.

Mus 301 HARMONY I, 2 credits

Begins with a study of all diatonic chords along with rules for four part writing. Introduction to modulation is included. Extensive ear training covers the entire work of the semester. Also included are at least two short original compositions in four parts, with or without words, involving materials studied.

Prerequisite: Either Mus 100 or 101 or thorough knowledge of music fundamentals.

Two class hours each week.

Mus 302 HARMONY II, 2 credits

A continuation of Harmony I including more detailed modulation, altered chords and analyzation. At least one short four part composition, written according to specifications, is required.

Prerequisite: Mus 200.

Two class hours each week.

Mus 310 INSTRUMENTAL ENSEMBLE — BRASS III, 1 credit

Mus 311 KEYBOARD I, 2 credits

This course is designed for the student interested in learning some facility at the piano. Major and minor scales, patterns and fingerings are learned. Chords (I, IV, V) are studied in both major and minor keys followed by their inversions. This leads to the common tone chord sequence pattern. A student completing the course should be able to play simple songs — melody with chord accompaniment.

Two class hours each week.

Mus 312 KEYBOARD II, 2 credits

A continuation of Keyboard I for the more advanced student. The first part of the term is spent in review of scales, chords, inversions, and sight reading. This is followed by improvising simple accompaniments from chord symbols. Modulation study is begun by the study of the circle of fifths, and further methods of modulation are introduced as time permits. Transposition at both the second and third are introduced. A thorough study of dominant seventh chords is made relating to simple improvisation within any given key.

Two class hours each week.

Mus 313 SIGHT SINGING AND EAR TRAINING, 2 credits

Concentration on sight reading of material traditionally taught in public schools. Includes both melodic and rhythmic aspects as well as two, three, and four part singing; ear training in use of intervals, chords and cadences, melodic dictation of easy to moderate difficulty.

Two class hours each week.

Mus 320 INSTRUMENTAL ENSEMBLE — PERCUSSION III, 1 credit

Mus 321 PRIVATE INSTRUMENTAL — BRASS III, 1 credit

Mus 326 CHILDREN'S SONG LITERATURE, 2 credits

Study and memorization of songs for all occasions. Songs about animals, seasons, transportation, other countries, etc., are representative of material to be included. Purpose of course is to provide a memory repertoire for the teacher. Students also participate in classroom teaching experiences.

Two class hours each week.

Mus 331 CREATIVE DEVELOPMENT IN MUSIC FOR EARLY CHILDHOOD, 3 credits

A creative approach to the music interests and needs of the very young child designed to acquaint the prospective teacher with current music education practices in pre-school and the primary grades. Experiences are provided in singing, listening, playing instruments, rhythmic movement and creative music

activities. Required for Area of Interest students in Early Childhood in lieu of Elem Ed 309.

Prerequisite: Mus 100.

Three class hours each week.

Mus 341 PRIVATE INSTRUMENTAL — PIANO III, 1 credit

Mus 351 PRIVATE INSTRUMENTAL — PERCUSSION III, 1 credit

Mus 361 PRIVATE INSTRUMENTAL — ORGAN III, 1 credit

Mus 380 COLLEGE BAND III, 1 credit

Entrance by interview with Band Director. Required attendance at rehearsals and all public performances. Band meets 5th period five (5) times a week during football season and four (4) times a week during concert season.

Mus 381 COLLEGE CHOIR III, 1 credit

Entrance by interview with Choir Director. Required attendance at rehearsals and all public performances. Choir meets 5th period, Monday, Wednesday and Friday. One additional section rehearsal per week.

Mus 382 MEN'S GLEE CLUB III, 1 credit

Entrance by interview with Men's Glee Club Director. Required attendance at rehearsals and all public performances. Men's Glee Club meets 5th period, Tuesday and Thursday.

Mus 383 WOMEN'S GLEE CLUB III, 1 credit

Entrance by interview with Women's Glee Club Director. Required attendance at rehearsals and all public performances. Women's Glee Club meets 5th period, Monday, Wednesday and Friday.

Mus 430 OPERA SURVEY, 3 credits

This course will provide students with (1) the origin and history of opera, (2) national contributions to the art, (3) the listing and analysis of numerous representative operas, (4) the relationship of plots to history and events.

Three class hours each week.

Mus 431 SURVEY OF JAZZ, 3 credits

The course presents (1) the historical background of jazz from 1900 to the present, (2) the noted figures in jazz and their contributions to the American musical form, (3) an analysis of jazz style through recordings and live performances.

Three class hours each week.

Mus 432 TWENTIETH CENTURY MUSIC SURVEY, 3 credits

A study of the development of Contemporary Music, including electronic, on the international scene, causes and effects of compositional styles, and the listening of such styles on recordings. The course begins with Debussy and considers such prominent figures as Schoenberg, Berg, Webern, Stravinsky, Boulez, Stockhausen, Cage, et.al.

Three class hours each week.

Mus 433 CHORAL LITERATURE, 3 credits

Mus 434 VOCAL SOLO LITERATURE, 3 credits

Mus 435 AMERICAN MUSIC (NON-JAZZ), 3 credits

A study of American folk, popular and art music; also that of the native Indians and the earliest European settlers to the Americans of the 20th century. This will include: Primitive Music, Psalmody, Early Opera and Concert Life, African and European folk music's influence in America, the musical effect of European immigrants, and the roots of Jazz and its ramifications. A chronological study of American Composers and their music, including Black Composers and their contributions to American Music. Recordings of musical examples will be played throughout the trimester.

Three class hours each week.

Mus 209 FUNDAMENTALS OF MUSIC, 3 credits

Designed to provide students with a knowledge of the fundamentals of music and an ability to execute basic skills. It includes the study of note values, meter signatures, scales, key signatures, plus the use of syllables in reading music. A basic introduction to the piano keyboard is also included. Strongly recommended for Elementary Education students and any others interested in strengthening their knowledge of music fundamentals.

Three class hours each week.

Mus 480 COLLEGE BAND IV, 1 credit

Entrance by interview with Band Director. Required attendance at rehearsals and all public performances. Band meets 5th period five (5) times a week during football season and four (4) times a week during concert season.

Mus 481 COLLEGE CHOIR IV, 1 credit

Entrance by interview with Choir Director. Required attendance at rehearsals and all public performances. Choir meets 5th period, Monday, Wednesday and Friday. One additional section rehearsal per week.

Mus 482 MEN'S GLEE CLUB IV, 1 credit

Entrance by interview with Men's Glee Club Director. Required attendance at rehearsals and all public performances. Men's Glee Club meets 5th period, Tuesday and Thursday.

Mus 483 WOMEN'S GLEE CLUB IV, 1 credit

Entrance by interview with Women's Glee Club Director. Required attendance at rehearsals and all public performances. Women's Glee Club meets 5th period, Monday, Wednesday and Friday.

NATURE CONSERVATION AND RECREATION

CR 101 HUMANITIES I, 2 credits

CR 102 HUMANITIES II, 2 credits

CR 210 RELATED ARTS, 3 credits

CR 220 INTRODUCTION TO AMERICAN STUDIES, 3 credits

CR 301 HISTORY AND PHILOSOPHY OF CONSERVATION AND RECREATION, 2 credits

Provides an understanding of the basic philosophical and historical foundations of recreation and conservation. The development and influence of play, recreation, and leisure services in light of social, political, and economic change.

Two class hours each week.

CR 306 CONSERVATION AND OUTDOOR EDUCATION, 3 credits

To acquaint students with the philosophy, techniques, methods, and procedures of developing and teaching conservation and outdoor education programs. Laboratory includes outdoor experiences and projects with field trips to nearby outdoor areas.

Four class hours per week.

CR 313 ENVIRONMENTAL INTERPRETATION — FALL, 2 credits

CR 314 ENVIRONMENTAL INTERPRETATION — WINTER, SPRING, 2 credits

CR 315 ENVIRONMENTAL INTERPRETATION — SUMMER, 2 credits

To acquaint students with opportunities through practical work in the field for the interpretation of the natural and physical phenomena. Explores the environments of plants and animals in the complex interrelationships of nature. The study of the conservation and horticulture practices necessary in the preservation and maintenance of our environmental resources. Offered three trimesters, covering the four seasons of the year.

Prerequisite: Botany and Zoology.

Four class hours per week.

CR 326 PROGRAM PLANNING, 2 credits

An understanding and general knowledge of the program fields in relation to programming principles, planning objectives and goal-setting, structural organization, purposes and values of types of activities, selection of program content, program planning, and evaluation. Principles of planning, organizing, and conducting workshops, institutes, conferences, clinics, and special projects in recreational settings.

Two class hours per week.

CR 328 LEISURE LEARNING, 3 credits

A lecture and laboratory course to include instruction and participation to develop beginning skill competency in the program areas included in the main cultural dimensions of leisure: Physical, artistic, intellectual, and social interests. The student is provided with the essential skills and methodology for instructing the various experiences.

Prerequisite: Program planning.

Five class hours each week.

CR 333 COMMUNITY ORGANIZATION AND LEADERSHIP, 2 credits

Bases and methods of community organization for recreation; functions and organizational patterns of public, private, voluntary, political, and pressure groups. Theory and study of community agencies. An understanding of the dynamics of individuals and groups. Professional and voluntary leader re-

recruitment, selection, training, development, and evaluation.

Prerequisite: Program planning.

Two class hours each week and supervised experience as a volunteer in an approved leadership setting for not less than 16 hours each semester.

CR 342 CAMP OPERATION, 3 credits

Principles and procedures of camp organization and administration: Finance and budgeting, selection and supervision of personnel, programming, food service, health and safety, camp maintenance, building equipment, and sites, publicity, evaluation, and other responsibilities of the camp operator.

Three class hours each week.

CR 348 COUNSELING AND CAMPCRAFT, 3 credits

The philosophy, understandings, attitudes, and knowledge which are essential for counseling and outdoor living experiences. The acquisition of the skills of campcraft, outdoor living, safety and survival. The planning, developing, and utilizing of outdoor sites and laboratories.

Four class hours per week, plus one weekend in an organized camp.

CR 352 RECREATION AND THE SCHOOLS, 3 credits

A thorough and critical analysis of the history and rationale leisure education. The study of organizational patterns and degrees of cooperation, legal aspects of school involvement, socio-economic benefits of school recreation, resources, nationwide trends and practices, and principles and practices for the development of school recreation.

Three class hours each week.

CR 355 SCHOOL INTRAMURAL AND RECREATION PROGRAMS, 3 credits

Organization and administration of school recreation programs with emphasis on principles, procedures, and practices for effective programming. Curriculum content, adult education, extracurricular activities, after-school and vacation programs and cooperative programs with other agencies.

Three class hours each week.

CR 376 NATURE AND WILDLIFE PHOTOGRAPHY, 2 credits

Techniques in still and motion picture photography of plants and animals, rocks and minerals, and outdoor activities, with interpretive use in educational programs. Photography equipment and supplies required by student.

Four class hours each week.

CR 401 SEMINAR, 3 credits

CR 406 LAND AND WATER RESOURCES, 3 credits

Relationships of forests, second growth, and scarred areas to run off, floods, pollution, and soil productivity. Effects of air and water pollution, and animal and plant communities, upon man's use and control of surface resources of the earth.

Prerequisite: Botany and Zoology, Environmental Interpretation, Conservation of Biological Resources, Conservation of Natural Resources.

Five class hours per week.

CR 411 RECREATION AND PARK ADMINISTRATION, 3 credits

An analysis of managerial and administrative practices and processes in recreation, park and agency departments, including: legislation, legal liability, planning, organizing, staffing, directing, coordinating, evaluating, budgeting, finance, records, research, office management, public relations, areas, facilities, and programming.

Prerequisite: Junior standing.

Three class hours each week.

CR 416 PLANNING AND DEVELOPING AREAS AND FACILITIES, 3 credits

Principles, practices, guidelines, and problems in the planning, organization, acquisition, development, and maintenance of public, private, and school-related park, recreation, and outdoor education areas and facilities. A study of Standards, trends, land-use patterns, layouts, designs, landscapings, and functional usage of areas. The planning and realization process.

Prerequisite: Junior standing.

Two lecture hours and three laboratory hours per week.

CR 421 GAME HABITAT MANAGEMENT, 3 credits

Application of historical and economic aspects of game problems to present day conditions. Field and laboratory studies with demonstrations of basic game management.

Prerequisite: Botany and Zoology and Environmental Interpretation .

Five class hours per week.

CR 426 WILDLIFE TECHNIQUES, 3 credits

Field studies involving basic techniques necessary in the study and use of fish, wildlife, and outdoor recreation skills, with emphasis on use in Conservation and Outdoor Education programs. Methods in observation, area studies, collecting, field data, habitat evaluation and relationships, and basic program methods and procedures.

Prerequisite: Botany and Zoology, Ecology, Environmental Interpretation, Program Planning.

Five class hours each week.

CR 490 FIELDWORK, Urban, 4 credits

Professional field experiences with an approved cooperating agency appropriate to the student's career choice. Practical on-the-job experience in an established organization or agency.

Prerequisite: Consent of the instructor.

Limited to majors only.

Eight hours per week or four full weeks and periodic special sessions when called by the instructor.

CR 491 FIELDWORK, Nature, 4 credits

CR 492 SEMINAR I, Nature, 1 credit

CR 493 SEMINAR II, Nature, 2 credits

CR 494 SEMINAR III, Nature, 3 credits

CR 495 SEMINAR I, Urban, 1 credit

CR 496 SEMINAR II, Urban, 2 credits

CR 497 SEMINAR III, Urban, 3 credits

Lectures, discussions, critiques, individual study, and research in recreation, conservation, park and environmental education problems, concepts, and developments.

Prerequisite: Consent of the instructor.

To be arranged.

PHILOSOPHY DEPARTMENT

Phil 110 PERSPECTIVES IN PHILOSOPHY, 3 credits

Introduces the student to some of the major issues in philosophy as discussed by classical and contemporary philosophers.

Phil 115 LOGIC AND LANGUAGE, 3 credits

Introduces the student to the nature and forms of meaning and argument. It includes semantics (meaning of terms and functions of language), formal logic (deductive reasoning), and scientific methodology (induction).

Phil 205 HISTORY OF ANCIENT PHILOSOPHY, 3 credits

Discusses the pre-Socratic philosophers, Plato, Aristotle, the Stoics, Epicureans, and the Sceptics.

Phil 210 HISTORY OF MODERN PHILOSOPHY, 3 credits

Discusses such influential thinkers as Francis Bacon, Descartes, Hobbes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant.

Phil 215 FORMAL LOGIC I, 3 credits

Examines the meaning of statement connectives, the use of truth tables, the structure of arguments in terms of the propositional calculus, quantification, and classes.

Phil 220 ETHICS, 3 credits

Examines selected ethical systems and discusses their philosophical foundations. Lays special emphasis on understanding such basic moral concepts as "good," "right," and "duty."

Phil 225 SOCIAL AND POLITICAL PHILOSOPHY, 3 credits

Examines selected social or political systems and discusses their philosophical foundations. Lays special emphasis on such basic concepts as "natural rights," "equality," "justice," "individual freedom," and "political authority."

Phil 230 FAITH AND REASON, 3 credits

Examines the nature of religious faith and its object, and whether faith can be justified by appeals to reason or experience.

Phil 235 PHILOSOPHY OF ART, 3 credits

Examines the nature and function of art, critical judgments in the arts, and such basic concepts as "beauty," "the ugly," "meaning," "creativity," and "style."

Phil 240 PHILOSOPHY OF EDUCATION, 3 credits

Discusses the aims of education and the relation of philosophy to education.

Phil 245 SCIENCE AND HUMAN VALUES, 3 credits

Discusses the nature of scientific knowledge and its relation to human values. Explores the problems resulting from the changes in our value judgments in keeping with advances in science and technology.

Phil 250 SELECTED PROBLEMS, 3 credits

Focuses on a particular topic in philosophy, or on a problem of an interdisciplinary nature in cooperation with members of other departments. Courses offered at the 100 and 200 levels are open to all students. Courses on the 300 level and above generally presuppose some background in philosophy.

Phil 305 MEDIEVAL PHILOSOPHY, 3 credits

Begins with neo-Platonism and proceeds with such thinkers as Augustine, Erigena, Anselm, Abelard, Aquinas, Roger Bacon, Duns Scotus, and William of Ockham.

Phil 310 NINETEENTH CENTURY PHILOSOPHY, 3 credits

Surveys the development of German idealism after Kant and the Voluntaristic reaction to it. It also considers British Empiricism and French Positivism.

Phil 315 FORMAL LOGIC II, 3 credits

Continuation of Formal Logic I with emphasis on the structure of axiomatic systems, the philosophy of logic, and the philosophy of mathematics.

Phil 320 ETHICAL THEORY, 3 credits

Examines the possibility and nature of ethical knowledge and its relation to moral discourse.

Phil 325 PHILOSOPHY OF SCIENCE, 3 credits

Studies the methods, concepts, and presuppositions of scientific inquiry.

Phil 330 PHILOSOPHY OF RELIGION, 3 credits

Discusses the nature of religion, the arguments for or against the existence of God, the question of religious knowledge (mysticism and revelation), the problem of evil, the quest of immortality, and the nature of religious discourse.

Phil 335 AESTHETIC THEORY, 3 credits

Examines the nature and basis of criticism in the fine arts and the possibility of knowledge in and through art.

Phil 340 ORIENTAL PHILOSOPHY, 3 credits

Examines the methodology, doctrines, and intellectual culture of the major oriental traditions. Hinduism, Jainism, Buddhism, Taoism, and Confucianism are considered.

Phil 345 AMERICAN PHILOSOPHY, 3 credits

Surveys the development of American philosophers from Jonathan Edwards to the present. Lays special emphasis on Peirce, James, Royce, Dewey, and Santayana.

Phil 350 PHILOSOPHY OF HISTORY, 3 credits

Discusses the problem of the scientific status of history and whether it has a meaning or a goal.

Phil 355 HISTORY OF SCIENCE, 3 credits

Studies the conceptual development of science. Emphasizes the relation of scientific progress to alternative conceptions of scientific methodology, advances in technology and philosophical systems. (May be offered as an interdisciplinary course.)

Phil 405 EPISTEMOLOGY, 3 credits

Examines selected theories of knowledge with special emphasis on contemporary discussions.

Phil 410 METAPHYSICS, 3 credits

Inquiries into the nature of reality and the meaning of existence.

Phil 415 PHILOSOPHY OF MIND, 3 credits

Examines important stages in the philosophical development of the notion of mind. Discusses such contemporary problems as the relation of mind and body and the nature of consciousness, and analyses such notions as "will," "emotion," "action," and "memory."

Phil 420 PHILOSOPHY OF LANGUAGE, 3 credits

Explores the relations between the various dimensions of language and traditional philosophical problems. Examines theories of meaning, kinds of meaning, and uses of languages.

Phil 425 CONTEMPORARY PHILOSOPHY I — Phenomenology and
Existentialism, 3 credits

Studies the historical background and development of twentieth century European philosophy, with particular emphasis on such major philosophers as Husserl, Heidegger, Sartre, and Merleau-Ponty.

Phil 430 CONTEMPORARY PHILOSOPHY II — Analytical, 3 credits

Discusses the thought of such prominent contemporary philosophers as Moore, Russell, Wittgenstein, Ayer, and Quine.

Phil 450 TUTORIAL IN PHILOSOPHY, 1, 2, or 3 credits

Phil 460 SEMINAR, 3 credits

Discusses either one prominent philosopher or a movement in philosophy.

Phil 470 SPECIAL PROBLEMS IN PHILOSOPHY, 1, 2, or 3 credits

000 ADULT EDUCATION

Designed as a non-credit lecture and discussion course on selected issues in philosophy.

PHYSICAL SCIENCE DEPARTMENT

GENERAL EDUCATION

GE 101 INTRODUCTION TO BIOLOGY, 4 credits

GE 111 MAN AND HIS PHYSICAL WORLD I (Physical Science Study Committee), 5 credits

The objectives of this integrated course in physical science are to introduce non-science majors to the nature of scientific inquiry and experimentation and to develop an interest in science. The topics discussed all contribute to the development of a single theme — Solid matter and the techniques for its investigation. The depth and pace of the course are such that students without strong backgrounds in science and mathematics can be successful.

Three class hours each week and two laboratory hours each week.

GE 112 BASIC PHYSICAL SCIENCE, 1, 2 or 3 credits

This course is designed to provide the non-science major with the opportunity to acquire a basic understanding and appreciation of contemporary physical science. It will also provide an alternative to those students who do not wish or are unable to schedule our five credit course. The student may elect to take the course for 1, 2, or 3 credits. Classroom activities and discussions will center on the topics chosen by the professor with or without the solicited aid of the students in the class.

Three class hours per week.

GE 113 OBSERVATIONAL ASTRONOMY, 2 credits

This course is designed to present an opportunity to acquire a general understanding of the night-time sky as it relates to Astronomy as well as experiences and opportunities for observation. This course is aimed at the non-science major and will meet one evening per week for two hours. Clear nights will be devoted to "naked eye," binocular and telescopic observations of celestial bodies. When possible, photographic records will be obtained. Cloudy evenings will be devoted to viewing and discussions of contemporary films in astronomy, plotting and graphing of observational data, analysis of photographs and spectrograms and discussions of current developments in astronomy. Visits to local planetariums and the Allegheny Observatory will also be included whenever possible.

GE 411 PHYSICAL PRINCIPLES, 5 credits

GE 413 WORKSHOP IN ELEMENTARY SCIENCE, 3 credits

CHEMISTRY

Chem 101 GENERAL CHEMISTRY I, 4 credits

An introductory course in chemistry. Topics covered include atomic structure, bonding, stoichiometry, the gaseous state and solutions.

Three class hours each week and three laboratory hours each week.

Chem 102 GENERAL CHEMISTRY II, 4 credits

A continuation of General Chemistry I. Topics covered include redox reactions, thermodynamics, kinetics and equilibrium, acids and bases, and ionic equilibria.

Prerequisite: General Chemistry I.

Three class hours each week and three laboratory hours each week.

Chem 103 GENERAL CHEMISTRY III, 3 credits

A continuation of General Chemistry II. Topics covered include descriptive chemistry of metals and non-metals, nuclear chemistry and complex compounds.

Prerequisite: General Chemistry II.

Three class hours each week.

Chem 111 CHEMISTRY OF MATERIALS, 3 credits

Study of some of the raw materials employed in the construction and fabrication process of a technological society. Particular emphasis will be devoted to the properties, chemical and physical, and preparations of metals, alloys, polymers, plastics, paints and inks, drawing special attention to the chemical characteristics of the material which render it useful in fabrication processes. Designed primarily for Industrial Arts majors.

Three class hours each week.

Chem 112 ENVIRONMENTAL CHEMISTRY, 3 credits

A number of the most significant factors in the relevance of science and technology to men and society are brought into focus by consideration of the chemical environment in which people live. The air, the water, and the earth provide raw materials to be used in the practice of science and in technology for the sustenance and comfort of mankind.

Three class hours each week.

Chem 201 ANALYTICAL CHEMISTRY I, 4 credits

An introduction to quantitative analytical procedures including the theory and practice of gravimetric, volumetric, and colorimetric determinations.

Prerequisite: General Chemistry I and II.

Three class hours each week and three laboratory hours each week.

Chem 202 ANALYTICAL CHEMISTRY II, 4 credits

A continuation of Chemistry III, including a study of the relationship of qualitative and quantitative analytical procedures; theory and practice of volumetric, gravimetric, and colorimetric determinations; electro-deposition and oxidation reduction methods; and unknowns involving the practices of both qualitative and quantitative procedures, stressing precision, accuracy, significant figures, and errors.

Three lecture hours and four laboratory hours each week.

Chem 301 ORGANIC CHEMISTRY I, 4 credits

An introduction to the basic principles which govern the behavior of carbon compounds. Particular emphasis is placed on the structure of organic compounds, acid and base theory and an introduction to the fundamental principles, necessary for the study of organic reaction mechanisms.

Prerequisite: Chemistry I and II.

Three class hours each week and four laboratory hours each week.

Chem 302 ORGANIC CHEMISTRY II, 4 credits

A thorough examination of the major types of reactions characteristic of organic compounds. Particular emphasis is given to the following reaction types: substitutions, additions, eliminations, condensations, and rearrangements.

Prerequisite: Chemistry 301.

Three class hours each week and four laboratory hours each week.

Chem 311 ORGANIC PREPARATIONS, 3 credits

An advanced course in synthetic organic chemistry. Important reactions and special experimental techniques are applied to the preparation of more complex organic compounds.

Prerequisite: Chemistry 301 and 302.

Three class hours each week and four laboratory hours each week.

Chem 321 BIOCHEMISTRY I, 4 credits

Includes the chemistry of the carbohydrates, fats and proteins; a survey of the chemistry and functions of enzymes, vitamins, and hormones.

Prerequisite: Organic Chemistry I and II.

Three class hours each week and four laboratory hours each week.

Chem 322 BIOCHEMISTRY II, 4 credits

Includes the chemistry of the carbohydrates, fats and proteins; a survey of the chemistry and function of enzymes, vitamins and hormones.

Prerequisite: Organic I and II and Biochemistry I.

Three class hours each week and four laboratory hours each week.

Chem 361 INDIVIDUAL WORK I, 1 credit

An opportunity for each student specializing in the area of Chemistry to organize, investigate and report on a specific problem of his own selection.

Chem 362 INDIVIDUAL WORK II, 1 credit

The continuation of Individual Work I.

Prerequisite: Individual Work I.

Chem 401 PHYSICAL CHEMISTRY I, 4 credits

Properties of gases; elementary thermodynamics, thermochemistry; kinetic molecular theory; atomic and molecular structure; introduction to the theory of chemical bonding.

Prerequisite: Chemistry 201 and Mathematics through Integral Calculus.

Three class hours each week and four laboratory hours each week.

Chem 402 PHYSICAL CHEMISTRY II, 4 credits

Kinetics: properties of solids and liquids; phase equilibria; colligative properties of solutions; electrolytic conductance and electrochemistry.

Prerequisite: Chemistry 401.

Three class hours each week and four laboratory hours each week.

Chem 411 ADVANCED INORGANIC CHEMISTRY I, 3 credits

Modern treatment of principles of inorganic chemistry emphasizing chemical bonding, stereochemistry, coordination and bases and non-aqueous solvents.

Prerequisite: Physical Chemistry 401 and 402.

Three class hours each week.

Chem 412 ADVANCED INORGANIC CHEMISTRY II, 3 credits

Modern treatment of principles of inorganic chemistry emphasizing chemical bonding, stereochemistry, coordination compounds with emphasis on periodic properties, acids and bases and non-aqueous solvents.

Prerequisite: Chemistry 411.

Three class hours each week.

Chem 421 ADVANCED ORGANIC CHEMISTRY I, 3 credits

A detailed study of the modern structural theory of organic chemistry. Particular emphasis is placed on the correlation of the structure and reactivity of organic compounds.

Prerequisite: Organic Chemistry 301 and 302.

Three class hours each week.

Chem 422 ADVANCED ORGANIC CHEMISTRY II, 3 credits

A study of the application of modern instrumental techniques to organic structural problems. Particular emphasis is placed on the interpretation of the ultraviolet, infrared, nuclear magnetic resonance and mass spectral data for elucidating the structure of organic molecules.

Prerequisite: Chemistry 421.

Three class hours each week.

Chem 423 QUALITATIVE ORGANIC CHEMISTRY, 3 credits

Identification of pure organic compounds and mixture by classical as well as by instrumental methods.

Prerequisite: Chemistry 301 and 302.

Three class hours and four laboratory hours each week.

Chem 431 LITERATURE OF CHEMISTRY, 1 credit

Designed for chemistry majors and includes a survey of the literature in the field.

Prerequisite: Completion of 18 hours in Chemistry.

One class hour each week.

Chem 441 LABORATORY TECHNIQUES WITH INSTRUMENTAL

ANALYSIS I, 4 credits

A laboratory experience involving chromopotentiometry, coulometry, electro-deposition, stripping analysis, chronoamperometry, polarography, voltammetry, cyclic voltammetry; column, thin-layer, and gas chromatography.

Prerequisite: Chemistry 201 and 202.

Three class hours each and three laboratory hours each week.

Chem 442 LABORATORY TECHNIQUES WITH INSTRUMENTAL

ANALYSIS II, 4 credits

A laboratory experience involving ultraviolet, visible, infrared, raman, emission, atomic absorption, electron paramagnetic resonance, and nuclear magnetic resonance spectroscopy.

Prerequisite: Chemistry 441.

Three class hours each and three laboratory hours each week.

Chem 443 MATHEMATICS FOR CHEMISTS, 3 credits

Chem 451 ADVANCED PHYSICAL CHEMISTRY I, 3 credits

Classical and statistical thermodynamics as applied to chemical systems.

Prerequisite: Physical Chemistry 401 and 402.

Three class hours each week.

Chem 452 ADVANCED PHYSICAL CHEMISTRY II, 3 credits

Kinetics and electrochemistry.

Prerequisite: Chemistry 451.

Chem 455 CHEMISTRY FOR HIGH SCHOOL TEACHERS, 3 credits

Chem 461 ADVANCED ANALYTICAL CHEMISTRY I, 3 credits

Chem 471 SPECIAL PROBLEMS IN CHEMISTRY I, 1 credit

Chem 472 SPECIAL PROBLEMS IN CHEMISTRY II, 2 credits

Chem 473 SPECIAL PROBLEMS IN CHEMISTRY III, 3 credits

Chem 491 HONORS IN CHEMISTRY I, 1 credit

Chem 492 HONORS IN CHEMISTRY II, 2 credits

Chem 493 HONORS IN CHEMISTRY III, 3 credits

Chem 495 CHEMISTRY SEMINAR, 1 credit

An introduction to the literature, history, and research methods of chemistry.
One class hour each week.

PHYSICS

Phys 100 GENERAL PHYSICS, 4 credits

An introductory course in physics with emphasis on mechanics. The topics include vectors, forces, work, power, and energy. Considerable attention is given to the application of the principles of physics to machines.

Prerequisite: Algebra.

Three class hours each and three laboratory hours each week.

Phys 101 COLLEGE PHYSICS I (Mechanics and Heat), 4 credits

An introductory course in physics. Topics covered include vectors, calculus, linear kinematics, circular motion, dynamics of particles, work and power, energy and systems of particles, simple harmonic motion, gravitational forces.

Corequisite: Calculus I.

Three class hours each week and three laboratory hours each week.

Phys 102 COLLEGE PHYSICS II, 4 credits

A continuation of Physics I. Topics covered include electrical and magnetic properties of matter, waves, light, special relativity, quantum effects, atomic structure, and an introduction to solid state and nuclear physics.

Prerequisite: Physics 101.

Corequisite: Calculus II.

Three class hours each week and three laboratory hours each week.

Phys 105 INTRODUCTORY PHYSICS I, 4 credits.

An introductory course in physics for biology and medical technology majors. Topics include Newton's laws of motion, the nature of light, electromagnetic forces and fields, and the nature of heat. Examples from the fields of medicine, biology, as well as physics and chemistry, will be given to illustrate physical laws.

Corequisite: Calculus I

Three class hours each week and three laboratory hours each week.

Phys 106 INTRODUCTORY PHYSICS II, 4 credits

A continuation of Physics 105. Topics include special relativity, structure of the atom, and introduction to quantum theory, elementary particles, and nuclear physics.

Prerequisite: Physics 105.

Three class hours each week and three laboratory hours each week.

Phys 110 ASTRONOMY, 3 credits

Non-mathematical presentation of methods and results of astronomical discovery.

The planet Earth — its shape, motions, and atmosphere. The seasons, calendar, time of day. Telescopes and their uses. The moon — effects on the earth, surface features, phases and eclipses. The stars in their seasons, constellations, star clusters, cosmic dust and gas, the galactic system, the exterior galaxies.

Three class hours each week.

Phys 211 HEAT AND SOUND, 4 credits

Phys 234 INTERMEDIATE MECHANICS, 4 credits

Topics include matrices, vector calculus, Newtonian kinematics and dynamics of many particle systems with emphasis on first integral relations, motion in a central potential, scattering theory, systems with constraints, variational principles in mechanics, small oscillations, wave equation, and special relativity.

Prerequisite: Physics 102.

Corequisite: Calculus III.

Three class hours each week and three laboratory hours each week.

Phys 263 INTERMEDIATE ELECTRICITY AND MAGNETISM, 3 credits

Topics include ordinary differential equations, fundamentals of electromagnets, multipole fields, Laplace and Poisson equations, electromagnetic field equations, electromagnetic waves, reflection and refraction.

Prerequisite: Physics 234.

Three class hours each week.

Phys 304 ELECTRONICS, 4 credits

This course is designed to give the students a thorough grounding in the concepts of digital electronics. Topics include diode, transistor, and other switching circuits, switching logic and logic gates, transistor amplifiers and oscillators, flip-flops, multivibrators, counters, registers, readout devices and analog-digital instruments.

Prerequisite: Physics 263.

Three class hours each week and three laboratory hours each week.

Phys 313 MATHEMATICAL METHODS OF PHYSICS I, 3 credits

This course includes the application of the following techniques to problems in physics: ordinary differential equations, infinite series, evaluation of integrals, eigenfunction theory, calculus of variations, vectors and matrices, special functions, and partial differential equations.

Prerequisite: Physics 263 and Calculus III.

Three class hours each week.

Phys 323 MATHEMATICAL METHODS OF PHYSICS II, 3 credits

This is a continuation of Physics 313, and includes the following topics: perturbation theory, integral transforms, integral equations, applications of complex variables, tensor analysis, and an introduction to groups and group representations.

Prerequisite: Physics 313 or equivalent math courses.

Three class hours each week.

Phys 333 MODERN PHYSICS I, 3 credits

This course includes relativistic kinematics and dynamics, particle and wave aspects of radiation and particles, the structure of the hydrogen atom, and

the many electron atom. Quantum mechanics is introduced for the first time here.

Prerequisite: Physics 263 and Calculus III.
Three class hours each week.

Phys 343 MODERN PHYSICS II, 3 credits

This course includes an introduction to the following fields of physics: Solid state physics, nuclear physics, and elementary particle physics.

Prerequisite: Physics 333.
Three class hours each week.

Phys 353 ADVANCED MECHANICS, 3 credits

This course is a continuation of Physics 234. Topics include variational principles, relativistic dynamics, Hamilton's equations, canonical transformations, Hamilton-Jacobi theory, continuous systems and classical field theory. Application to quantum mechanical, electromagnetic and relativistic systems are also included.

Prerequisite: Physics 234 and 263.
Three class hours each week.

Phys 363 ADVANCED ELECTROMAGNETIC THEORY, 3 credits

This course is a continuation of Physics 263. Topics include the microscopic theory of dielectrics, magnetic properties of matter, slowly varying currents, introduction to plasma physics, applications of Maxwell's equations, special relativity, electrodynamics, and superconductivity.

Prerequisite: Physics 263.
Three class hours each week.

Phys 373 RADIATION AND OPTICS, 3 credits

This course begins with a review of Maxwell's equations and wave analysis, and then goes into Fraunhofer diffraction, radiation from atoms, polychromatic waves, scattering, reflection and transmission of waves, magneto-and electro-optic effects, and an introduction to laser and maser theory.

Prerequisite: Physics 263.
Three class hours each week.

Phys 383 STATISTICAL AND THERMAL PHYSICS, 3 credits

This course includes the following topics: statistical methods, statistical thermodynamics, macroscopic thermodynamics and its relation to statistical mechanics application of statistical mechanics to gases and solids, phase equilibrium, and quantum statistics.

Prerequisite: Physics 263.
Three class hours each week.

Phys 403 QUANTUM MECHANICS, 3 credits

This course, after an introduction as to the necessity of quantum mechanics, includes a discussion of Schrodinger's equation in one dimension, systems of particles in one dimension, motion in three dimensions, angular momentum and spin, approximation methods, and various applications to atomic and nuclear physics.

Prerequisite: Physics 343.
Three class hours each week.

Phys 413 ADVANCED LABORATORY I, 3 credits

This laboratory course offers experiments selected from topics discussed in Modern Physics I. The lecture time will be used to discuss error analysis, curve fitting, and points of interest to the laboratory reports.

One class hour each week and six laboratory hours each week.

Phys 423 ADVANCED LABORATORY II, 3 credits

This laboratory course is an extension of Physics 413, and the experiments are selected from Modern Physics II as well as from some of the advanced courses (such as Nuclear Physics, Solid State Physics, Plasma Physics, and Optics). Computer analysis of the data will be utilized in this course.

Prerequisite: Physics 413 and Physics 343.

One class hour each week and six laboratory hours each week.

Phys 433 PLASMA PHYSICS, 3 credits

Topics include an introduction to tensor analysis, the electrodynamic equations, elastic collisions, the Boltzman equation, charged particle interactions, wave phenomena in plasmas, plasma oscillations, and plasma generation.

Prerequisite: Physics 263 and Physics 383.

Three class hours each week.

Phys 443 NUCLEAR PHYSICS, 3 credits

Topics include a discussion of the deuteron, nucleon-nucleon scattering, nuclear models, gamma transitions, alpha decay, beta decay, nuclear reactions, and an introduction to elementary particle physics.

Prerequisite: Physics 343 and 403.

Three class hours each week.

Phys 453 SOLID STATE PHYSICS, 3 credits

Topics include crystal structure, crystal binding, elastic constants, lattice vibrations, thermal properties of insulators, the free electron model of metals, the energy band theory of insulators and semiconductors, and the properties of semiconductor crystals.

Three class hours each week.

Phys 463 SPECIAL AND GENERAL RELATIVITY, 3 credits

Topics include relativistic mechanics and electrodynamics of mass points, mechanics of continuous matter, applications of the special theory, the principle of equivalence, the field equations and the general theory, experimental tests of the general theory, and equations of motion in the general theory.

Prerequisite: Physics 343.

Three class hours each week.

Phys 473 ASTROPHYSICS, 3 credits

Topics will be chosen from the following concerning stellar evolution: observations, physical state of the stellar interior, evolutionary phases and initial and final stellar structure, and some vital statistics of the stars.

Prerequisite: Physics 343 and 383.

Three class hours each week.

Phys 495 SEMINAR, 1 credit

An introduction to the literature, history, teaching and research methods for people in the physical sciences.

Prerequisite: Junior standing and at least 19 hours of physics (including Physics I and II.)

Phys 499 SENIOR THESIS, 1 credit

This is an opportunity for each physics major to do individual research on a topic of his choosing, either experimental or theoretical.

Prerequisite: Senior standing and Physics 343.

PSYCHOLOGY DEPARTMENT

Psy 101 GENERAL PSYCHOLOGY, 3 credits

A general introduction to the scientific study of behavior with emphasis on such topics as methods of study, learning, sensation, perception, development of the individual, motivation, personality, and individual differences.

Three class hours each week.

Psy 201 EDUCATIONAL PSYCHOLOGY, 3 credits

A study of the nature of the learning process with emphasis on the application of principles of learning to the problems of teaching. An important aspect of the course is the study of actual classroom problems and procedures by observation of regular work and by special illustrative demonstrations in the laboratory school. Recognizing the importance of the individual's learning process, this course deals with the psychological climate of the classroom, the importance of evaluating the child's total learning, the group process, and guidance as an essential part of creative teaching. The course should furnish the prospective teacher with a foundation in the theories, principles and master ideas of the educative process.

Prerequisite: General Psychology.

Three class hours each week.

✓ Psy 300 DEVELOPMENTAL PSYCHOLOGY I (Child Development), 3 credits

A study of the patterns of physical, mental, social and emotional development in the period of early childhood through the pre-pubescent period. The course will emphasize the normal development of the individual.

Prerequisite: General Psychology and for Teacher Education students a prerequisite is Educational Psychology.

Three class hours each week.

✓ Psy 301 DEVELOPMENTAL PSYCHOLOGY II, (Adolescent Psychology), 3 credits

A study of (1) developmental needs and adjustment problems experienced by pre-adolescents, adolescents, and young adults, (2) problems that confront parents, teachers, counselors, and other adults in their relations with individuals in these age groups, and (3) case reports of secondary school pupils in need of various kinds of assistance.

Prerequisite: General Psychology and for Teacher Education students a prerequisite is Educational Psychology.

Three class hours each week.

Psy 302 PSYCHOLOGY OF EXCEPTIONAL CHILDREN, 3 credits

The problems of exceptional or atypical children. The major purpose is to gain a functional understanding of the various types of physical and mental "deviates," both as to the genesis of their behavioral process, their treatment, and the guiding principles involved in their training.

Prerequisite: General Psychology.

Three class hours each week.

Psy 303 PSYCHOLOGY OF ADJUSTMENT, 3 credits

A study of the individual's adjustive processes in personal and social relationships. The course will review the defensive reactions, abnormal behavioral reactions, problem solving, and superior adjustment.

Prerequisite: General Psychology.

Three class hours each week.

Psy 310 MENTAL HYGIENE, 3 credits

Problems of personality and mechanisms of adjustment, including a study of the origin and resolution of conflicts, and the role of emotion in the patterns of behavior are studied. (This course should not be taken if Psychology of Adjustment has been taken.)

Prerequisite: General Psychology.

Three class hours each week.

Psy 320 SOCIAL PSYCHOLOGY, 3 credits

A study of the interaction between the individual and his social groups within a cultural context. The course will be concerned with the individual in his social role, social status, social groups, and social institutions.

Prerequisite: General Psychology and Principles of Sociology.

Three class hours each week.

Psy 330 PHYSIOLOGICAL PSYCHOLOGY, 3 credits

A study of the relationships between bodily processes and behavior. The course is designed to demonstrate the relationship between psychological phenomena and the physiological functioning of the organism. Topics covered in the course will include sensation and perception, reflexive behavior, motivation, emotional behavior and cortical functioning. Some laboratory experience will be included in this course.

Prerequisite: General Psychology.

Three class hours each week.

Psy 340 PSYCHOLOGICAL TESTING, 3 credits

A study of the nature and function of measurement in psychology with concentration on test construction problems and procedures and an examination of some typical tests in the fields of intelligence, personality, special aptitudes, abilities and interests.

Prerequisite: General Psychology.

Three class hours each week.

Psy 350 PRINCIPLES IN BEHAVIOR MODIFICATION, 3 credits

Psy 400 SPECIAL STUDIES IN PSYCHOLOGY I, 1 credit

This course provides the student with an opportunity to engage in individual study and research in an area of psychology of interest to the student. Admission to this course is subject to the approval of the department head.

Prerequisite: Consent of the instructor.

Psy 401 SPECIAL STUDIES IN PSYCHOLOGY II, 2 credits

This course provides the student with an opportunity to engage in individual study and research in an area of psychology of interest to the student. Admission to this course is subject to the approval of the department head.

Prerequisite: Consent of the instructor.

Psy 402 SPECIAL STUDIES IN PSYCHOLOGY III, 3 credits

This course provides the student with an opportunity to engage in individual study and research in an area of psychology of interest to the student. Admission to this course is subject to the approval of the department head.

Prerequisite: Consent of the instructor.

Psy 410 CLINICAL PSYCHOLOGY, 3 credits

An introductory course designed to aid students to think creatively about the kinds of information and data to be obtained in studying individuals. The course seeks to point out some of the problems and procedures which constitute the type of clinical procedure. This course is not designed as a course to train the student to become a clinical psychologist, but rather is an introduction to the applied area of clinical psychology.

Prerequisite: General Psychology, Abnormal Psychology, Psychological Testing, Psychology of Personality and Senior Standing.

Three class hours each week.

Psy 411 PRACTICUM IN PSYCHOLOGY, varying credits (Not Currently Offered)

Special study in case study methods, psychological testing and the use of clinical instruments; admission by permission of the Dean of Academic Affairs.

Prerequisite: Psychological Testing, Statistics, Experimental Psychology, Clinical Psychology.

Psy 412 ABNORMAL PSYCHOLOGY, 3 credits

A study of the symptoms, causes, incidence and forms of treatment of the more common types of abnormal behavior. Included will be a consideration of the neuroses, psychoses, character and personality disorders, mental deficiency and psychosomatic reactions. The course will give a brief introduction to some of the major theories of treatment.

Prerequisite: General Psychology.

Three class hours each week.

Psy 415 EXPERIMENTAL PSYCHOLOGY, 4 credits

An introduction to the experimental method as it is used in psychology. The course is concerned with methods, principles and theories in psychology. Laboratory time will be used to give the student an opportunity to repeat experimental studies and to develop independent studies.

Prerequisite: Statistics.

Two class hours and four laboratory hours each week.

Psy 420 PSYCHOLOGY OF PERSONALITY, 3 credits

A study of the development, structure, and dynamics of personality will be reviewed and evaluated.

Prerequisite: General Psychology.

Three class hours each week.

Psy 430 HISTORY AND SYSTEMS OF PSYCHOLOGY, 3 credits

A study of the historical development of psychology for its philosophical origins to the present day. The course will briefly review the philosophical origins and will place greatest emphasis on the development of scientific psychology from the early "schools" of psychology to the current "systems" of psychology.

Prerequisite: General Psychology.

Three class hours each week.

Psy 435 PSYCHOLOGY OF LEARNING, 3 credits

A study of the nature and conditions of learning. The course will examine the types of learning and the experimental procedures used in the study of learning problems. The various interpretations of the process will be examined and evaluated.

Prerequisite: General Psychology.
Three class hours each week.

Psy 440 PSYCHOLOGY OF STATISTICS, 3 credits

The course is designed to acquaint the student in psychology with the common statistical procedures used in the description of data gathered in the various types of psychology.

Three class hours each week.

Psy 445 INDUSTRIAL PSYCHOLOGY, 3 credits

A study of the psychological principles applied to problems of business and industry. The course will be concerned with such topics as personnel selection and training, work efficiency, morale and leadership, and consumer behavior.

Prerequisite: General Psychology.
Three class hours each week.

Psy 490 SEMINAR IN PSYCHOLOGY I, 1 credit

The course is a discussion type seminar course dealing with special areas of psychology not covered in the departmental course offerings. It is designed to give the student an opportunity to engage in readings in the literature of psychology and to engage in critical discussions of the topic.

Prerequisite: Junior or Senior Standing in Psychology.

Psy 491 SEMINAR IN PSYCHOLOGY II, 2 credits

This course is a discussion type seminar course dealing with special areas of psychology not covered in the departmental course offerings. It is designed to give the student an opportunity to engage in readings in the literature of psychology and to engage in critical discussions of the topic.

Prerequisite: Junior or Senior Standing in Psychology.

Psy 492 SEMINAR IN PSYCHOLOGY III, 3 credits

This course is a discussion type seminar course dealing with special areas of psychology not covered in the departmental course offerings. It is designed to give the student an opportunity to engage in readings in the literature of psychology and to engage in critical discussions of the topic.

Prerequisite: Junior or Senior Standing in Psychology.

Psy 495 HONORS COURSE IN PSYCHOLOGY, 3 credits

This course is designed to provide the student with an opportunity to engage in independent research in Psychology under the direction of a member of the faculty.

Prerequisite: High academic performance; Consent of the instructor, Department Head and Dean of Academic Affairs.

PUBLIC SCHOOL NURSING

PSN 101 PUBLIC HEALTH NURSING I, 3 credits

A study of the fundamental principles of public health nursing. Topics are related to changes in concepts of public housing, sanitation and other contemporary public health problems.

PSN 102 PUBLIC HEALTH NURSING II, 3 credits

Applies the principles of public health nursing and gives function of nurse in various services of public health nursing such as child hygiene, communicable disease, industrial nursing tuberculosis, venereal disease, cancer and polio.

PSN 201 NUTRITION AND COMMUNITY HEALTH, 3 credits

A study of the role of nutrition in attaining and maintaining good health and planning food budgets for various income groups and the role of the nurse in, as a nutritional resource person.

PSN 202 PUBLIC SCHOOL NURSING, 3 credits

A study of the development, planning and procedures of carrying out a school health program as they are related to public school nursing.

PSN 205 PREVENTION AND CONTROL OF COMMUNICABLE DISEASE, 3 credits

The course covers communicable disease problems of our society. Emphasis is placed on the prevention and control as they relate to public school nursing.

SECONDARY EDUCATION DEPARTMENT

Sec Ed 301 PROBLEMS OF SECONDARY EDUCATION, 3 credits

The practical problems of teaching and learning in the secondary school with emphasis on principles of problem solving are studied. A survey is made of the structure and nature of American Secondary Education. Tools and techniques used in problem solving are introduced. A Field Exposure Experience of two classes per week for nine weeks in the local secondary schools is a requirement of the course.

Prerequisite: Educational Foundations and Educational Psychology.

Three class hours each week.

Sec Ed 420 INTRODUCTION TO GUIDANCE AND PERSONNEL SERVICES, 3 credits

The primary objective of this course is to develop an understanding of the principles of guidance with emphasis on basic concepts and administration of the guidance program.

Prerequisite: Educational Foundations, Educational Psychology.

Three class hours each week.

Sec Ed 430 EDUCATIONAL TEST AND MEASUREMENTS IN SECONDARY SCHOOLS, 3 credits

This course is a consideration of the simpler statistical measures, with particular stress on the application to classroom work, and of the principles underlying the construction of valid, reliable objective tests.

Prerequisite: Educational Psychology.

Three class hours each week.

Sec Ed 435 SCHOOL AND COMMUNITY, 3 credits

The development of classroom techniques which lead to cooperative understandings between school and community is a chief objective of this course. Considerable attention is given to the structure of the community, its groups, and their goals. The school is viewed in its role as a public relations laboratory.

Three class hours each week.

Sec Ed 440 TEACHING OF ENGLISH IN SECONDARY SCHOOLS, 3 credits

The application of principles of educational psychology, philosophy, and sociology to the teaching of English in junior and senior high school. The course includes both practical techniques of classroom practice and an investigation of the larger problems of the profession. Adequate prior content courses in English are necessary to the student undertaking this course.

Three class hours each week.

Sec Ed 441 TEACHING OF GEOGRAPHY AND EARTH SCIENCE IN SECONDARY SCHOOLS, 3 credits

A review of concepts and basic philosophy in geography and earth science. The course includes a survey of available materials and current curriculums in the fields of geography and earth science which form the bases for analysis of modern techniques in the teaching of these subjects.

Prerequisite: Eighteen credits in geography and/or earth science.

Three class hours each week.

Sec Ed 442 TEACHING MATHEMATICS IN SECONDARY SCHOOLS, 3 credits

The mathematical abilities of the secondary student are diagnosed. Methods of mathematical teaching are discussed and presented. Results of mathematical education according to recent research are studied and trends are indicated. The control and use of the visual aids pertaining to mathematics classroom, and a study of student, teacher, administration and community problems with proper methods of instruction are considered. Content material will be included at the discretion of the mathematics department. Evaluation is maintained by tests, reports, textbook evaluations, course outlines, unit plans, projects and teaching lessons.

Prerequisite: Mathematical Insights.

Three class hours each week.

Sec Ed 443 TEACHING MODERN LANGUAGES (K thru 12), 3 credits

This course will be taught in the language laboratory. It will cover the theory and practice of teaching and modern language. Instruction in the use of the laboratory will be given. Emphasis is given to the student developing an adequate understanding of the needs, interests, learning characteristics and motivations of students at various ages of development (K thru 12).

Sec Ed 444 TEACHING OF SCIENCE IN SECONDARY SCHOOLS, 3 credits

This course is planned to give the prospective science major a thorough grounding in the problems of teaching science. The objectives of the science program in the secondary school, selection of textbooks, sources of suitable literature, how to secure materials for instruction, the preparation of units, and special techniques are studied.

Prerequisite: Twelve hours of work in major field.

Three class hours each week.

Sec Ed 445 **TEACHING OF SOCIAL STUDIES IN SECONDARY SCHOOLS**, 3 credits
This course is intended to familiarize prospective teachers with desirable methods which may be used in teaching the social studies. Emphasis is placed on the philosophy, objectives, courses of study, and organization of subject matter for teaching purposes, curriculum materials, procedures and development.
Three class hours each week.

Sec Ed 446 **TEACHING SPEECH COMMUNICATION IN SECONDARY SCHOOLS**, 3 credits
Planning the objectives, procedures, materials, and evaluations of student progress for units in speech communication, e.g., oral reading, listening, group discussion, parliamentary procedure, general semantics, expository and argumentative speaking, argumentation and debate, dramatics, radio, television, film, etc.
Three class hours each week.

Sec Ed 449 **PRINCIPLES OF TEACHING**, 3 credits
The course is primarily concerned with the direction of learning, the understanding and use of common procedures in teaching, the planning of instruction, the evaluation of the effectiveness of instruction, and characteristics of an effective teacher.
Prerequisite: Educational Foundations and Educational Psychology. In certain situations, this course may be substituted for the Secondary Teaching Methods Course. Admittance only by consent of the Department Head of Secondary Education.

Sec Ed 450 **STUDENT TEACHING**, 12 credits
Observation and participation in all teaching and activities related to the performance of a teacher's work, in the area of the student's specialization.
Prerequisite: A general quality point average of C or 2.00 and 2.00 in their area of specialization. The student spends full time in actual classroom teaching for a trimester of 16 weeks.

Sec Ed 451 **PROFESSIONAL PRACTICUM AND SCHOOL LAW**, 2 credits
Primary consideration is given to the general techniques and principles of teaching with particular emphasis to techniques that are pertinent to the student's special field. Pennsylvania school law relevant to the work of the classroom teacher as well as the problems encountered by the students in their student teaching experiences are considered in the Professional Practicum class.
Two class hours each week.

Sec Ed 455 **MODERN METHODS IN SECONDARY SCHOOLS**, 3 credits
An analysis of the functions of secondary education and of classroom problems, followed by the presentation of techniques for the solution of such problems as indicated by recent literature in the field.
Three class hours each week.

Sec Ed 456 **THE SECONDARY SCHOOL CURRICULUM**, 3 credits
An analysis of the functions of secondary school curriculum including: the historical development of the high school curriculum; current and projected trends; patterns of curriculum development; the dynamics of curriculum im-

provement; curriculum provisions for meeting individual differences; trends in specific instructional fields; the place and purpose of student activities and the extra-class curriculum.

Three class hours each week.

Sec Ed 465 SECONDARY READING AND ACADEMIC DISCIPLINE, 2 credits

The purpose of this course is to help the prospective teachers of the Secondary Academic subject areas develop an understanding and appreciation of the necessary reading skills needed by their students. Methods of establishing awareness of general reading needs as well as the special skills unique to their subject area will be stressed.

Two class hours each week.

Sec Ed 491 HONORS SEMINAR IN SECONDARY EDUCATION, 1 credit

Sec Ed 492 HONORS SEMINAR IN SECONDARY EDUCATION, 2 credits

Sec Ed 493 HONORS SEMINAR IN SECONDARY EDUCATION, 3 credits

SOCIAL SCIENCES DEPARTMENT

Soc St 101 WORLD CULTURE I, 3 credits

A survey of the evolution of man's culture — his governmental, economic, social, religious, intellectual, and aesthetic activities from ancient times to the beginning of the modern world.

Three class hours each week.

Soc St 102 WORLD CULTURE II, 3 credits

A survey of the evolution of man's culture — his governmental, economic, social, religious, intellectual, and aesthetic activities from the end of the ancient world to modern times.

Three class hours each week.

Soc St 180 THE SLAVIC WORLD, 3 credits

A general survey of the historical and cultural background and development of the western, southern and eastern Slavs, from the origins of the Slavic tribes to the present.

Three class hours each week.

Soc St 181 THE SLAVIC WORLD II, 3 credits

An analysis of the governments and political systems of Bulgaria, Yugoslavia, Czechoslovakia, Poland and the Soviet Union, with special emphasis placed upon ideology, the politics of Communist parties, present and past, governmental structures and processes, and theories concerning the evolution of Communist systems in these countries.

Three class hours each week.

Soc St 401 SPECIAL PROBLEMS IN SOCIAL SCIENCE I, 1 credit

Development of individual programs by students. Does not replace any course regularly given.

Soc St 402 SPECIAL PROBLEMS IN SOCIAL SCIENCE II, 2 credits
Development of individual programs by students. Does not replace any course regularly given.

Soc St 403 SPECIAL PROBLEMS IN SOCIAL SCIENCE III, 3 credits
Development of individual programs by students. Does not replace any course regularly given.

Soc St 491 HONORS COURSE IN SOCIAL STUDIES I, 3 credits
Directed reading and research in the area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College

Soc St 492 HONORS COURSE IN SOCIAL STUDIES II, 3 credits
Directed reading and research in the area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College and Soc St 491.

Soc St 493 HONORS COURSE IN SOCIAL STUDIES III, 3 credits
Directed reading and research in the area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College and Soc St 491 and Soc St 492.

Soc St 495 SEMINAR IN SOCIAL STUDIES, 3 credits
Selected studies in the literature, philosophy, techniques, and research of social studies.

Prerequisite: Permission of the instructor.

ECONOMICS

Econ 101 PRINCIPLES OF ECONOMICS I, 3 credits
The course emphasizes economic principles and problems which are fundamental for an understanding and appreciation of our modern system. While stressing the basic economic concepts and national income, attention is also given to practical economic matters, including labor problems, finance, taxation, business cycles and fiscal policy.

Three class hours each week.

Econ 102 PRINCIPLES OF ECONOMICS II, 3 credits
The course consists of an analytical study of certain crucial present day problems such as the composition and pricing of national income, the distribution of income and the pricing of the productive factors, international trade and finance, current economic problems and the individual's responsibility as a citizen of the world.

Prerequisite: Economics 101.

Three class hours each week.

Econ 203 INDUSTRIAL RELATIONS, 3 credits
The methods by which workers, employers and the public have been and are now attempting to solve their problems are examined in the light of under-

lying economic principles. Labor and management representatives from the area are invited to discussion sections when possible.

Three class hours each week.

Econ 204 LABOR ECONOMICS, 3 credits

Econ 205 DEVELOPMENT OF THE AMERICAN ECONOMY, 3 credits

A critical analysis of economic life in Colonial America. A study of the East-West immigration and the growth of modern business and industry in the United States. Special attention is directed to the corporations and its part in the nation's dynamic growth. The causes and consequence of the great depression are also considered.

Three class hours each week.

Econ 206 HISTORY OF ECONOMIC THOUGHT, 3 credits

An extensive survey of the development of economic thought from approximately 1700 to 1900, stressing the contributions of Smith, Malthus, Ricardo, Marx, and Mill.

Three class hours each week.

Econ 211 MONEY AND BANKING, 3 credits

The course concentrates on the functioning of the monetary and banking system as a whole and its relationship with the rest of the economy. Emphasis is placed on the study of commercial banks, the Federal Reserve System, the Treasury Department, the nature of money and the significance of monetary policy.

Prerequisite: Econ 101.

Three class hours each week.

Econ 212 PUBLIC FINANCE, 3 credits

A study of governmental activities in the collection and spending of public income. Subjects covered include: government expenditures, taxes and revenues, public debt management, fiscal policy and fiscal administration.

Prerequisite: Econ 101.

Three class hours each week.

Econ 221 INTERMEDIATE MICRO ECONOMIC THEORY, 3 credits

A review of the nature and scope of economic theory. A study of value theory, wage theory, the theory of factor prices and income distribution, output determination, capital investments, rents and profits.

Three class hours each week.

Econ 222 ACCOUNTING I, 3 credits

The course places emphasis on the basic concepts of accounting and uses of accounting data. It is designed for students who plan to continue with additional courses as well as for those whose needs are limited to an introductory course.

Three class hours each week.

Econ 223 ACCOUNTING II, 3 credits

The course places emphasis on financial reports for the use of management in planning and controlling operations. Emphasis is placed on decision making.

Sufficient coverage of the techniques of data processing is employed to provide the foundation for an adequate understanding of the basic of system design and internal control.

Prerequisite: Accounting I.

Three class hours each week.

Econ 225 MONETARY AND FISCAL POLICY, 3 credits

A comprehensive analysis of monetary and income theory. The role of monetary and fiscal policies in periods of depression, inflation and economic stability.

Prerequisite: Econ 211.

Three class hours each week.

Econ 230 INTERMEDIATE MACRO ECONOMIC THEORY, 3 credits

An analysis and measurement of the forces that determine the level of aggregate economic activity. Included is the measurement of the economic activity, problems in the control of economic activity and the level of economic activity.

Prerequisite: Econ 102.

Econ 240 COMPARATIVE ECONOMIC SYSTEMS, 3 credits

An examination of the various economic aspects of capitalism, socialism, communism and fascism. The economics of the western nations including the Soviet Union are analyzed in terms of theoretical and operational approaches to the solutions of basic economic problems.

Prerequisite: Econ 102.

Three class hours each week.

Econ 250 QUANTITATIVE METHODS, 3 credits

Econ 255 INPUT, OUTPUT ANALYSIS

Econ 270 COMMUNITY RESOURCES, 3 credits

A method of providing teachers in all levels of education with the opportunity discover, study, and adapt community resources to their classroom work. The workshop includes the production of teaching materials, based on workshop findings for the use of participants, and other teachers.

Econ 303 COLLECTIVE BARGAINING, 3 credits

Econ 322 ACCOUNTING III, 3 credits

Econ 401 SPECIAL PROBLEMS IN ECONOMICS I, 1 credit

Development of individual programs by students. Does not replace any course regularly given.

Econ 402 SPECIAL PROBLEMS IN ECONOMICS II, 2 credits

Development of individual programs by students. Does not replace any course regularly given.

Econ 403 SPECIAL PROBLEMS IN ECONOMICS III, 3 credits

Development of individual programs by students. Does not replace any course regularly given.

Econ 422 ACCOUNTING IV, 3 credits

Econ 491 HONORS COURSE IN ECONOMICS I, 3 credits

Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College.

Econ 492 HONORS COURSE IN ECONOMICS II, 3 credits

Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College and Econ 490.

Econ 493 HONORS COURSE IN ECONOMICS III, 3 credits

Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College and Econ 491 and Econ 492

Econ 495 SEMINAR IN ECONOMICS, 3 credits

Selected studies in the literature, philosophy, techniques, and research of economics.

Prerequisite: Permission of the instructor.

HISTORY

Hist 101 HISTORY OF U. S. AND PENNSYLVANIA I, 3 credits

A broad study of the political, economic, social and intellectual forces which shaped the American past to 1865. Pennsylvania history assumes a prominent place in this course.

Three class hours each week.

Hist 102 HISTORY OF U. S. AND PENNSYLVANIA II, 3 credits

A broad study of the political, economic, social and intellectual forces which shaped America since 1865. Pennsylvania history assumes a prominent place in this course.

Three class hours each week.

Hist 103 SURVEY OF U. S. AND PENNSYLVANIA HISTORY, 3 credits

A course for secondary curriculum students who are not majoring in history or social studies; Industrial Arts students and Speech Correction students. This course will survey the major issues of United States growth and development from 1607 to the present. Problem in American, political, social and economic history will be discussed.

Three class hours each week.

Hist 104 HISTORY OF CIVILIZATION, 3 credits

Hist 121 HISTORY OF EUROPE TO 1815, 3 credits

The development of the social, economic, political, religious and cultural experiences of the European people. The decline on monarchical Europe and the major democratic movements in Europe.

Three class hours each week.

Hist 122 HISTORY OF EUROPE SINCE 1815, 3 credits

The growth of European national states as reflected in their political, social and economic activities. An understanding of the casual and inter-group relationships are essential to the analysis and interpretation of the difficulties facing the European world today.

Three class hours each week.

Hist 142 HISTORY OF LATIN AMERICA, 3 credits

The development of Latin American countries from the period of discovery to the present. The colonial period, the revolutionary period, and the national period are surveyed. European and American relations with Latin America are emphasized.

Three class hours each week.

Hist 143 HISTORY OF THE FAR EAST, 3 credits

The interaction of East and West with emphasis on developments since 1800. The impact of modern technology, imperialism, nationalism and communism on Oriental culture is given special attention.

Three class hours each week.

Hist 144 HISTORY OF THE MIDDLE EAST, 3 credits

The rise of the modern national state in the Middle East is the focal point of international concern since World War I. A review of the history of the peoples of the region in addition to a consideration of major political, economic and cultural factors which color international affairs in the Middle East is the basis for this work.

Three class hours each week.

Hist 150 HISTORY OF THE ANCIENT WORLD, 3 credits

The origins of Western Civilization from pre-historic man to the disintegration of the Roman Empire, embracing a thorough study of the cultural aspects of the Fertile Crescent and Greco-Roman Civilizations.

Three class hours each week.

Hist 201 HISTORY OF PENNSYLVANIA, 3 credits

The founding and development of Pennsylvania from its colonial beginnings to the present time. Emphasis is placed on the social, economic and political developments in the different periods of its history. Special attention is given to the diversity of the people and their institutions and to the growth of Pennsylvania as a leader in our modern industrial world.

Three class hours each week.

Hist 202 CONTEMPORARY UNITED STATES HISTORY, 3 credits

The policies and problems of United States in the twentieth century, with emphasis upon the Second World War and the post-war period.

Prerequisite: United States and Pennsylvania I and II.

Three class hours each week.

Hist 204 AFRO-AMERICAN U. S. HISTORY, 3 credits

Hist 221 HISTORY OF CONTEMPORARY EUROPE, 3 credits

The development of political, social, and economic forces since World War I and a history of the several attempts to resolve these problems.

Three class hours each week.

Hist 223 HISTORY OF MEDIEVAL EUROPE, 3 credits

The political, social, economic, and cultural history of the Middle Ages with emphasis on institutional and cultural life from the fall of Rome to the Renaissance.

Three class hours each week.

Hist 224 RENAISSANCE AND REFORMATION, 3 credits

Renaissance Culture in Europe from the 14th to the 16th century, with emphasis of Italy. It will include a treatment of late Medieval Civilization, the growth of Humanism, and the rise of the principle branches of Protestantism, and the reform movement within the Roman Catholic Church.

Three class hours each week.

Hist 232 TWENTIETH CENTURY WORLD HISTORY, 3 credits

Background and analysis of 20th century events and emerging issues is brought out by a study of the growth of capitalism, emperialism, totalitarianism. World Wars I and II and recent efforts toward collective security and international understanding.

Three class hours each week.

Hist 236 HISTORY OF URBAN AMERICA, 3 credits

Hist 237 SOCIAL HISTORY OF THE UNITED STATES, 3 credits

A study of the major groupings and ways of thought of the United States from colonial days to the present.

Three class hours each week.

Hist 238 HISTORY OF AMERICAN LABOR, 3 credits

This is a survey course covering the history of labor in America from colonial times to the present. Many topics are included in this study, from indentured and slave labor in colonial America to problems facing labor today with the coming of automation. Included also are such topics as the labor philosophy of the "Robber Barons," the great strikes, labor and the courts, and other related studies.

Three class hours each week.

Hist 239 DIPLOMATIC UNITED STATES HISTORY, 3 credits

Special emphasis is placed on a study of our foreign relations from the beginning of our national history to the present. Included are separate topics such as the growth and influence of a policy of "isolation." The creation and development of the Monroe Doctrine, the changing position of the United States as a world power, and the problems incident to the assumption of the resulting responsibilities.

Three class hours each week.

Hist 240 HISTORY OF THE COLD WAR, 3 credits

Hist 241 HISTORY OF ENGLAND, 3 credits

The growth of the people and institutions of England from the conquest of the Anglo-Saxons to the present. The emphasis is placed on the development of those factors that gave rise to the struggle for the establishment of democratic principles in our modern world.

Three class hours each week.

Hist 245 HISTORY OF RUSSIA, 3 credits

A study of the rise of the Russian state from the migrations of the Slavic tribes to the formation of the Soviet Union.

Three class hours each week.

Hist 250 AMERICAN CONSTITUTIONAL HISTORY, 3 credits

The growth of the American Constitutional system, with special emphasis on constitutionalism, federalism, national-state relations, judicial review, economic regulations and civil liberties.

Three class hours each week.

Hist 315 HISTORY OF UNITED STATES SECTION, 3 credits

Hist 401 SPECIAL PROBLEMS IN HISTORY I, 1 credit

Development of individual programs by students. Does not replace any course regularly given.

Hist 402 SPECIAL PROBLEMS IN HISTORY II, 2 credits

Development of individual programs by students. Does not replace any course regularly given.

Hist 403 SPECIAL PROBLEMS IN HISTORY III, 3 credits

Development of individual programs by students. Does not replace any course regularly given.

Hist 491 HONORS COURSE IN HISTORY I, 3 credits

Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College.

Hist 492 HONORS COURSE IN HISTORY II, 3 credits

Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College and Hist 491 and Hist 492.

Hist 493 HONORS COURSE IN HISTORY III, 3 credits

Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College and Hist 491 and Hist 492.

Hist 495 SEMINAR IN HISTORY, 3 credits

Selected studies in the literature, philosophy, techniques, and research of history.

Prerequisite: Permission of the instructor.

POLITICAL SCIENCE

Pol Sci 101 INTRODUCTION TO POLITICAL SCIENCE, 3 credits

A course designed for those beginning the study of political science. The general characteristics, concepts, and trends of the study of political science are stressed.

Three class hours each week.

Pol Sci 102 AMERICAN GOVERNMENT, 3 credits

The general principles of the American system of constitutional government; special emphasis is placed upon the organization and functions of the national government - legislative, executive and judicial; careful treatment is given to the rights and duties of citizenship, the electorate, political parties, civil rights and the growing regulatory function of government.

Three class hours each week.

Pol Sci 201 STATE AND LOCAL GOVERNMENT, 3 credits

A treatment of the organization, powers, functions, and problems of state and local government units. Emphasis is placed on the growing complexity of relationship among the various levels of government as a result of technological developments and the growth of metropolitan areas.

Three class hours each week.

Pol Sci 202 INTERNATIONAL RELATIONS, 3 credits

Background of international politics since the First World War, emphasizing successes and failures of the League of Nations, the rise of totalitarianism and World War II; the patterns of international affairs, the balance of power systems and various efforts at collective security.

Three class hours each week.

Pol Sci 203 INTERNATIONAL ORGANIZATION, 3 credits

An analysis and evaluation of the United Nations and other international organizations and consideration of some of the theoretical concepts and practical problems involved.

Three class hours each week.

Pol Sci 207 AMERICAN FOREIGN POLICY, 3 credits

Pol Sci 211 POLITICAL PARTIES, 3 credits

This course deals with the organization and operations of political parties in the United States. Careful attention is given to the methods used by parties in nominating candidates and conducting campaigns, and to the significance of pressure groups, public opinion, and the electorate in our political life.

Three class hours each week.

Pol Sci 213 DEVELOPMENT OF POLITICAL THOUGHT, 3 credits

A study of the principle writings and theories of the major political philosophers from the time of the Greek City State to the eighteenth century.

Three class hours each week.

Pol Sci 215 COMPARATIVE GOVERNMENT, 3 credits

Major attention is given to Great Britain and Soviet Russia as best representing, among the foreign governments, the democratic and the authoritarian sys-

tems. Brief consideration is given to the governments of France and Germany. Frequent comparisons and contrasts are drawn between these governments and governments in the United States.

Three class hours each week.

Pol Sci 220 INTRODUCTORY PUBLIC ADMINISTRATION, 3 credits

An analysis of the history, and scope of public administration in the United States; organizational theory and practice are emphasized; likewise, problems of centralization, decentralization, management, and political and legal controls.

Three class hours each week.

Pol Sci 250 CONSTITUTIONAL LAW, 3 credits

A study of the major provisions of the American Constitution and the growth of American Constitutional Law based on analysis and discussion of leading judicial decisions.

Three class hours each week.

Pol Sci 270 POLITICS OF DEVELOPING AREAS, 3 credits

A systematic study of the origin and rise of Anti-Colonialism. The course is a critical investigation of the most basic problems and the most important political and constitutional developments and governmental systems of new independent states; the struggle for influence among great powers and the increasing native demands for national self-determination in the remaining colonial countries.

Three class hours each week.

Pol Sci 401 SPECIAL PROBLEMS IN POLITICAL SCIENCE I, 1 credit

Development of individual programs by students. Does not replace any course regularly given.

Pol Sci 402 SPECIAL PROBLEMS IN POLITICAL SCIENCE II, 2 credits

Development of individual programs by students. Does not replace any course regularly given.

Pol Sci 403 SPECIAL PROBLEMS IN POLITICAL SCIENCE III, 3 credits

Development of individual programs by students. Does not replace any course regularly given.

Pol Sci 490 HONORS COURSE IN POLITICAL SCIENCE I, 3 credits

Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College.

Pol Sci 491 HONORS COURSE IN POLITICAL SCIENCE II, 3 credits

Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College and Pol Sci 490.

Pol Sci 492 HONORS COURSE IN POLITICAL SCIENCE III, 3 credits

Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College and Pol Sci 490 and Pol Sci 491.

Pol Sci 495 SEMINAR IN POLITICAL SCIENCE, 3 credits

Selected studies in the literature, philosophy, techniques, and research of political science.

Prerequisite: Permission of the instructor.

SOCIOLOGY AND SOCIAL WORK

Soc 101 PRINCIPLES OF SOCIOLOGY, 3 credits

This is a basic course in sociology dealing with the interaction arising from the association of human beings. Emphasis is placed upon natural and social heritage, the meaning and functions of culture, the origin, functions, and characteristics of social institutions; with inquiry into the nature and genesis of social pathology.

Three class hours each week.

Soc 110 AFRO-AMERICAN CULTURE, 3 credits

Soc 200 RESEARCH METHODS, 3 credits

This course makes a basic review of scientific procedure as such relates to the conduct of research. Procedures for data collection, analysis, etc. are also considered.

Prerequisite: Principles of Sociology 101.

Three class hours each week.

Soc 201 HISTORY OF SOCIAL THOUGHT, 3 credits

Soc 202 CONTEMPORARY SOCIAL PROBLEMS, 3 credits

Selected contemporary social problems including crime, divorce, delinquency, etc., in their relation to our traditional social institutions. Current data and remedial proposals will be carefully examined and evaluated in the light of basic sociological principles.

Three class hours each week.

SW 208 MINORITY GROUP RELATIONS, 3 credits

Soc 210 SOCIAL STRATIFICATION, 3 credits

This course considers the general nature of social stratification and processes of social mobility. Some attention is given to the various forms of social stratification.

Prerequisite: Soc 101.

Three class hours each week.

Soc 220 THE FAMILY, 3 credits

This course deals with development of the family and the home in its historical, economic and legal aspects. The various factors influencing the organization, disorganization, and reorganization of the family are considered, as well as the modern trends in this basic institution.

Three class hours each week.

Soc 230 COMMUNITY AND ECOLOGY, 3 credits

Some attention is given to the nature of human communities as social units.

Attention is also given to various ecological theories and metropolitan processes.

Prerequisite: Soc. 101.

Three class hours each week.

Soc 231 URBAN SOCIOLOGY, 3 credits

Soc 240 SOCIAL INSTITUTIONS, 3 credits

This course discusses the nature of social institutions. Basic units such as the family, economic, political, religious, and educational orders are considered.

Prerequisite: Soc 101.

Three class hours each week.

SW 250 INTRODUCTION TO SOCIAL WORK, 3 credits

This course introduces the student to the field of social welfare. The nature of the field and the various welfare services, etc. are considered.

Prerequisite: Soc 101 or instructor's consent.

Three class hours each week.

SW 255 SOCIAL CASEWORK I, 3 credits

Soc 260 CRIME, 3 credits

A study of the historic background of our society's methods of dealing with the adult offender; also, a consideration of current techniques being used with him. Finally, a brief look at several types of offenses, including drug addiction, homicide, and organized crime.

Three class hours each week.

SW 261 JUVENILE DELINQUENCY, 3 credits

A consideration of the causes, prevention, and treatment techniques, past and present, which have been used in dealing with the juvenile delinquent.

Three class hours each week.

SW 280 CHILD WELFARE, 3 credits

The nature of child welfare services will be considered. Their scope and function will be considered.

Prerequisite: Soc 101 and Soc 250 or instructor's consent.

Three class hours each week.

SW 300 WELFARE PRACTICUM, 3 credits

This course provides the opportunity for on-the-job experiences in welfare organization. The nature of training is defined by academic and agency personnel.

Prerequisite: Two courses in social work or instructor's consent.

SW 301 WELFARE PRACTICUM II, 3 credits

SW 355 SOCIAL CASEWORK II, 3 credits

Soc 401 SPECIAL PROBLEMS IN SOCIOLOGY I, 1 credit

Development of individual programs by students. Does not replace any course regularly given.

Soc 402 SPECIAL PROBLEMS IN SOCIOLOGY II, 2 credits

Development of individual programs by students. Does not replace any course regularly given.

Soc 403 SPECIAL PROBLEMS IN SOCIOLOGY III, 3 credits
Development of individual programs by students. Does not replace any course regularly given.

Soc 491 HONORS COURSE IN SOCIOLOGY I, 3 credits
Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Soc 492 HONORS COURSE IN SOCIOLOGY II, 3 credits
Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College and Soc 491.

Soc 493 HONORS COURSE IN SOCIOLOGY III, 3 credits
Directed reading and research in an area of interest chosen by the student in consultation with an instructor.

Prerequisite: Provisions of the Honors Program of the College and Soc 491 and Soc 492.

Soc 495 SEMINAR IN SOCIOLOGY, 3 credits
This course provides an overview of the field as it may be defined by the instructor.

Prerequisite: Upper Division Status, instructor's consent.
Two class hours each week.

SPECIAL EDUCATION – MENTAL RETARDATION

MR 300 EDUCATION OF EXCEPTIONAL CHILDREN, 3 credits
Examination of the educational provisions for exceptional children in regular and special classrooms in the local school system and in residential facilities. Discussion of the methods of facilitating growth and development of children who are crippled, acoustically handicapped, visually handicapped, defective in speech, mentally retarded, gifted, or emotionally and socially maladjusted.

MR 301 CURRICULUM PLANNING, MATERIALS AND EQUIPMENT, 3 credits
The major goal for the course Curriculum Planning for the Mentally Retarded is to provide an understanding of the general and specific characteristics of programs for different age levels and types of mentally retarded children. To meet this goal the course content contains: (1) A review in detail of the historical curricula approaches and their effectiveness, (2) An examination of the content, organization, objectives and effectiveness of present curricula strategies, (3) A review and synthesis of research related to pertinent curricula cases.

MR 302 ARTS AND CRAFTS FOR SPECIAL EDUCATION CLASSES, 3 credits
Techniques and skills for making interesting, useful, and attractive articles are considered for use with children in Special Education classes at the elementary level. Utilization of arts and crafts experiences with other aspects of the school program is emphasized.

MR 306 EDUCATING THE TRAINABLE CHILD, 3 credits
Designed to prepare the prospective teacher with a knowledge and understanding of the basic procedures for planning and implementing systematic educational

programs for trainable children and adults. The course provides a developmental approach with emphasis on specific techniques and methods for meeting the needs of these children and adults in these curriculum areas: self-care, social adjustment and economic usefulness, comprehensive perceptual motor training, communication skills, avocational interests, and academics. Visits to various area schools, actual teaching experiences in a public school classroom situation, peer teaching, and opportunities to handle some of the most recent educational materials and equipment are included in this course.

MR 320 ANATOMY, KINESIOLOGY AND PHYSIOLOGY, 3 credits

Systematic study of the structure of the human body. Emphasis is on neuro-muscular mechanism, the cardiovascular system and neuromuscular mechanism, the cardiovascular system and neuroanatomy including conduction pathways. Also emphasizes the anatomical mechanism of movement and exercise, analysis of the action of muscles in movement.

MR 321 MOTOR LEARNING, 3 credits

Examines the physiological and psychological correlates of motor learning. Emphasizes perceptual development and perceptual problems, movement exploration and laterally. Relates motor development to academic achievement with implications for teaching methods. Includes consideration of diagnostic procedures for the identification of postural defects and faulty body mechanics and emphasizes corrective programming.

MR 400 SPECIAL CLASS METHODS - ELEMENTARY, 3 credits

Major emphasis is given to basic procedures for planning and implementing an educational program for mentally retarded children of different age and ability levels in the elementary schools. The course provides a developmental approach with emphasis of specific teaching techniques and methods for meeting the needs of these children. Opportunities for developing units of learning are presented.

MR 401 SPECIAL CLASS METHODS - SECONDARY, 3 credits

This course specifically identifies the broad educational objectives, individual needs and learning characteristics of the adolescent educable mentally retarded child. Methodological considerations, procedures and special materials are emphasized through demonstration, observation and micro-teaching experiences.

MR 402 COUNSELING PARENTS OF EXCEPTIONAL CHILDREN, 3 credits

This course is designed to improve the skills of the teacher in helping parents accept their handicapped children. The importance of parental recognition and adjustment of the realities of the child's condition is stressed.

MR 403 PSYCHOLOGY OF THE MENTALLY RETARDED, 3 credits

Intensive review of research is made pertaining to etiology of mental retardation, of classification systems, and methods of diagnosis. Included are the study of brain injury, research on learning characteristics, the effects of cultural deprivations, and differential diagnosis.

MR 404 OCCUPATIONAL-VOCATIONAL EDUCATION, 3 credits

This course is designed to investigate the historical development, organizational structure, rationale and legal framework of work-study programs for handicapped learners. The empirical considerations for the establishment of programs to provide basic occupational and vocational skills in the cited population are

explored. Students are provided with specific competencies in planning, organizing, and operating occupational education programs. Typical vocational requirements and frequently encountered problem situations are included as topics of study.

MR 405 PRACTICAL CRAFTS, 3 credits

This course is aimed at developing the teacher trainee's abilities in the manual tasks associated with home maintenance and repair. Included are refinishing techniques and accessory construction. Alternate methods, cost estimating, and municipal ordinances are also considered. Special class teaching methods and safety precautions are stressed.

MR 410 DIAGNOSTIC TESTING AND PRESCRIPTIVE TEACHING, 3 credits

This course reviews the use of various diagnostic instruments in developing individual profiles on mentally retarded children. Also emphasizes the use of diagnostic results in prescribing educational programs for children. Each student must complete a diagnostic work-up on a child with recommendations for programming.

MR 240 RHYTHMIC ANALYSIS THROUGH CREATIVE MOVEMENT, 2 credits

Examination of the progressive development of basic loco-motor movements in children first as discrete bodily functions with gradual blending of these skills through the introduction of music, pulse, meter and phrase leading to creative expression.

MR 422 METHODS OF TEACHING PHYSICAL EDUCATION AND RECREATION TO THE HANDICAPPED, 3 credits

Examines the development and organization of physical education and recreation programs for the handicapped. Implications of child growth and development for school and playground programs, philosophy, curriculum, techniques of teaching, facilities and the selection and use of materials and equipment are stressed.

MR 449 STUDENT TEACHING, 12 credits

Observation and participation in all teaching and activities related to the performance of the teacher's role in classes for mentally retarded children. Student teachers are assigned to either elementary or secondary special classes depending on their major area of interest.

MR 451 PRACTICUM AND SCHOOL LAW, 2 credits

Review of teaching techniques related to the student's area of specialization. Pennsylvania school law relevant to Special Education. Discussion of problems encountered by students during student teaching.

MR 499 HONOR SEMINAR, 1 credit

SPEECH DEPARTMENT

Sp 100 VOICE AND ARTICULATION, 3 credits

Introduction to phonetics and voice production and control, with exercises to develop adequate quality, loudness, pitch, rate, and articulation.

Sp 101 PUBLIC SPEAKING, 3 credits

Designing, rehearsing, and delivering extempore speeches to facilitate solving group and public problems; reporting and evaluating other speakers' intent, content, format and delivery.

Sp 102 INTRODUCTION TO ORAL INTERPRETATION, 3 credits

Techniques of discovering denotative and connotative meanings in literature; audible and visible interpretation.

Sp 103 FUNDAMENTALS OF DISCUSSION, 3 credits

Introduction to group forms, techniques, participation, and chairmanship in informal and formal discussions of contemporary issues.

Sp 104 INTRODUCTION TO COMMUNICATION THEORY, 3 credits

Nature, origin, purposes, and functions of verbal and nonverbal communication.

Sp 105 SURVEY OF RADIO, TELEVISION, AND FILM, 3 credits

Introduction to communication in radio, television, and film; effects of mass media on the individual; role of mass media in news, documentaries, commercial, and entertainment broadcasting.

Sp 106 INTRODUCTION TO PARLIAMENTARY PROCEDURE, 1 credit

The basic philosophy and rules of parliamentary procedure, with emphasis on participation in problem solving.

Sp 115 INTRODUCTION TO GENERAL SEMANTICS, 3 credits

Study of the relationship of language and thought to improve sensory and symbolic perception in the making of reliable reports, inferences, and judgments.

Sp 150 PUBLIC DISCUSSION, 2 credits

Forms and techniques of public discussion of current issues. Participation in symposium-forums, panel-forums, roundtable-forums, and open forums.

Sp 200 ADVANCED VOICE AND ARTICULATION, 2 credits

Exercise to perfect vocal adaptability for professions requiring superior speech proficiency.

Prerequisite: Sp 100 or Competency.

Sp 205 ADVANCED VOICE AND ARTICULATION, 3 credits

A continuation of public speaking, with emphasis on developing meaningful style in extempore and manuscript speeches. Introduction to types of speeches and occasions not previously dealt with.

Prerequisite: Sp 101 or Competency.

Sp 210 GROUP DISCUSSION, 3 credits

Using a rationale sequence to derive group approved solutions to group and public problems. Techniques of involvement, creativity, conflict resolution, morale building, and decision making.

Prerequisite: Sp 101, 103 or Competency.

Sp 211, 212, 213 DISCUSSION WORKSHOP, 1 credit

Practical experience in inter-collegiate and public discussion.

Sp 220 PERSUASION, 3 credits

Methods of changing attitudes and behaviors through speech communication; analysis of individuals, audiences, occasions, and subjects for persuasive appeals. Study of logical and psychological arrangements and the ethics of persuading and being persuaded. Preparation of persuasive speeches.

Prerequisite: Sp 101, 103 or Competency.

Sp 230 ARGUMENTATION AND DEBATE, 3 credits

Logical advocacy: briefing and supporting logically-adequate cases advocating propositions of policy; negative positions; exposing fallacious evidence and reasoning; refutation and rebuttal. Applications to intercollegiate and mass media topics.

Prerequisite: Sp 101, 103 or Competency.

Sp 231, 232, 233 FORENSIC WORKSHOP, 1 credit

Practical experience in inter-collegiate debate and competitive speaking.

Sp 240 INTRODUCTION TO RADIO AND TELEVISION, 3 credits

Fundamentals of radio and television production, including the use of equipment. Maintenance logs and records and scheduling of programs and commercials. Directing, planning, and evaluating programs.

Sp 241, 242, 243 RADIO AND TELEVISION WORKSHOP, 1 credit

Practice in using equipment; projects in radio and television.

Sp 246 RADIO AND TELEVISION ANNOUNCING, 2 credits

Theories and practice of gathering, evaluating, writing, and delivering newscasts, sports, commercials, interviews, editorials, and documentaries for radio and television audiences.

Prerequisite: Sp 240 or Competency.

Sp 250 ADVANCED ORAL INTERPRETATION, 3 credits

Detailed analysis and evaluation of literary forms. Preparation and presentation of suitable programs.

Prerequisite: Sp 102.

Sp 251, 252, 253 ORAL INTERPRETATION WORKSHOP, 1 credit

Practical experience in the oral reading of various types of literature for presentation on and off campus.

Sp 255 STORY TELLING FOR CHILDREN, 3 credits

Training in the selection preparation, and vocal delivery of fables, myths, and other stories for children.

Sp 258 CHORAL SPEAKING, 3 credits

Selecting, analyzing, and organizing literature for group interpretation; casting, directing, and staging choral reading and readers' theatre productions.

Sp 260 FREEDOM OF SPEECH, 3 credits

History of free speech in the world, with special attention to its development in the United States; legal decisions in contemporary attacks upon and attempts to expand the principle of freedom of speech.

Sp 270 EVALUATIVE LISTENING, 3 credits

Discovering, reporting, and evaluating the intent, content, format, and delivery of oral messages, with emphasis on speaker and listener responsibilities.

Sp 300 PARLIAMENTARY PROCEDURE, 3 credits

Current parliamentary practices; training as a member, secretary, chairman, and parliamentarian in formal discussion of motions to resolve group and public controversies; differences among large and small representative and peer groups.

Sp 310 INTERPRETATION OF CONTEMPORARY LITERATURE, 2 credits

Analysis and oral presentation of literature from 1950 to the present. Emphasis on current social issues.

Prerequisite: Sp 250 or Competency.

Sp 311 INTERPRETATION OF RELIGIOUS LITERATURE, 2 credits

Analysis and oral presentation of writings from the major religions of the world.

Prerequisite: Sp 250 or Competency.

Sp 312 INTERPRETATION OF PROSE, 2 credits

Analysis and oral presentation of prose literature.

Prerequisite: Sp 250 or Competency.

Sp 313 INTERPRETATION OF POETRY, 2 credits

Analysis and oral presentation of poetry.

Prerequisite: Sp 250 or Competency.

Sp 314 INTERPRETATION OF DRAMA, 2 credits

Analysis and oral presentation of drama.

Prerequisite: Sp 250 or Competency.

Sp 315 LANGUAGE AND BEHAVIOR, 3 credits

Developing language habits that improve sensory and symbolic perception, inference-making, evaluation, and the resolving of conflicts.

Prerequisite: Sp 115 or Competency.

Sp 320 HISTORY OF AMERICAN PUBLIC ADDRESS, 3 credits

Study of selected United States speakers and speeches of major significance in political, religious, social, and intellectual histories of the world from 1600-1960.

Sp 322 CONTEMPORARY AMERICAN PUBLIC ADDRESS, 2 credits

Study of selected United States speakers and speeches of major significance in national issues since 1960.

Sp 325 SPECIAL PROBLEMS IN SPEECH COMMUNICATION, 1-3 credits

Individual study and reporting of topics of interest to the student but not available to him in scheduled courses.

Sp 330 RADIO AND TELEVISION WRITING, 3 credits

The writing of news, commentary, documentary, educational, and commercial scripts for radio and television; preparation of original and adapted dramatic scripts for radio and television.

Prerequisite: Sp 240 or Competency.

Sp 400 ADVANCED DISCUSSION, 3 credits

Techniques of forming, operating, analyzing, and reforming large and small representative and peer groups in formal and informal discussions.

Prerequisite: Sp 210, 300, 315 or Competency.

Sp 415 DIRECTING FORENSIC PROGRAMS, 3 credits

Coaching oral reading, oratory, extempore speaking, discussion, and debate; establishing and maintaining forensic programs; organizing and managing forensic tournaments. Intended for in-service teachers without forensic preparation.

Sp 420 CONTEMPORARY WORLD ADDRESS, 2 credits

A study of the rhetoric of contemporary world leaders on current issues.

Sp 440 PRODUCING AND DIRECTING FOR RADIO AND TELEVISION, 3 credits

Theory and practice of producing and directing radio and television programs.

Prerequisite: Sp 240 or Competency.

Sp 445 RADIO AND TELEVISION IN A FREE SOCIETY, 2 credits

A study of the rights and obligations of the mass media producer, purveyor, and audience.

Prerequisite: Sp 240 or Competency.

Sp 460 SPEECH CRITICISM, 3 credits

A study of historical, experimental, and other methodologies in speech criticism. Analysis of significant speeches and speakers.

Prerequisite: Major.

Sp 480 RESEARCH METHODOLOGY, 2 credits

A survey of research methodology for students planning graduate work in speech communication.

Prerequisite: Major.

Sp 490 HONORS COURSE IN SPEECH AND THEATRE I, 3 credits

Individual research and reporting of topics not included in courses, planned as a three term project but subject to termination at the end of any term if the quality of either the research or the reporting is unsatisfactory.

Prerequisite: High academic standing and approval of the instructor, Head of the Department and Dean of Instruction.

Three class hours each week.

Sp 491 HONORS COURSE IN SPEECH AND THEATRE II, 3 credits

Individual research and reporting of topics not included in courses, planned as a three term project but subject to termination at the end of any term if the quality of either the research or the reporting is unsatisfactory.

Prerequisite: High academic standing and approval of the instructor, Head of the Department and Dean of Instruction.

Three class hours each week.

Sp 492 HONORS COURSE IN SPEECH AND THEATRE III, 3 credits

Individual research and reporting of topics not included in courses, planned as a three term project but subject to termination at the end of any term if the

quality of either the research or the reporting is unsatisfactory.

Prerequisite: High academic standing and approval of the instructor, Head of the Department and Dean of Instruction.

Three class hours each week.

Sp 495 SEMINAR IN SPEECH AND THEATRE, 1 credit

Group research and reporting of topics not included in courses.

Prerequisite: Approval of the instructor and of the Head of the Department.

One class hour each week.

SPEECH PATHOLOGY AND AUDIOLOGY DEPARTMENT

SPA 100 PHONETICS, 3 credits

A study of the science of phonetics as it applies to the communicative process. Emphasis is placed on the articulation process in a communication system. The student is required to learn and use the International Phonetic Alphabet.

Three class hours each week.

SPA 101 HEARING PROBLEMS, 3 credits

The appreciation of the many problems of children and adults with hearing losses in order to acquaint the student with the improvement and adjustment of the child or adult to his hearing problem.

Three class hours each week.

SPA 102 LANGUAGE AND SPEECH DEVELOPMENT, 3 credits

A study of the normal development of speech and language, including the origins of speech, stages of speech and language development, and factors influencing the acquisition of speech and language.

Three class hours each week.

SPA 103 ANATOMY AND PHYSIOLOGY OF THE EAR AND
VOCAL MECHANISM, 3 credits

A study of the anatomy and physiology of the hearing and speech mechanisms dealing with their functions and capabilities in their performance necessary for speech and hearing.

Three class hours each week.

SPA 202 SURVEY OF SPEECH PATHOLOGY, 3 credits

A foundation course in speech pathology, considering incidence, etiology, and symptomatology of speech disorders, and stressing the physical, psychological, and social conditions related to these speech problems.

Three class hours each week.

SPA 204 PRACTICE IN MEASUREMENT OF HEARING, 3 credits

Familiarization with the basic equipment and procedures used in the assessment of hearing. Opportunity for practice in the use of this equipment is provided.

Three class hours each week plus laboratory.

SPA 206 AUDITORY TRAINING AND SPEECH READING, 3 credits

Students study the different systems of teaching Speech Reading. Lessons in Auditory Training and Speech Reading are planned and presented for all age groups manifesting different levels of hearing impairment.

Three class hours each week.

SPA 208 PSYCHOLOGY OF SPEECH AND HEARING, 3 credits

Familiarization with the psychological factors involved in speech and hearing. Special emphasis is given to the perception of speech, frequency of occurrence of symbols, and the role of learning.

Three class hours each week.

SPA 302 INTRODUCTION TO CLINICAL PROCEDURES, 3 credits

A review of speech disorders, testing, remedial principles. Opportunity for the accumulation of materials for therapy, and for observation of clinical practicum is provided.

Three class hours each week.

SPA 304 ADMINISTRATION OF PUBLIC SCHOOL PROGRAMS, 3 credits

Acquaintance of students with survey techniques, scheduling, travel, records, interviews, materials, and personnel involved in the administration of public school program in speech and hearing.

Three class hours each week.

SPA 306 CLINICAL METHODS AND TECHNIQUES, 3 credits

A study of the application of various therapeutic methods and techniques, with some emphasis on diagnostic tools used by the speech clinicians.

Three class hours each week.

SPA 308 ADVANCED CLINICAL PRACTICUM, 3 credits

Clinical practicum. Each student is responsible for his own cases, including diagnosis, therapy, records, counseling, etc., with planned supervision. Clinical practice is accomplished in the College Speech Clinic, Noss Laboratory School, and Outpatient Clinic for children and adults.

Laboratory hours as assigned each week.

SPA 400 STUDENT TEACHING, 12 credits

Observation and participation in a public school speech and hearing therapy program. The student spends one full trimester of sixteen weeks under supervision of a certified public school clinician, with periodic visits by the college supervisor.

SPA 402 PROFESSIONAL PRACTICUM AND SCHOOL LAW, 2 credits

General techniques for the students area of specialization. Pennsylvania school laws relevant to the work of the public school clinician. Discussion of problems encountered by the clinicians during student teaching.

Two class hours each week.

SPA 404 HONORS COURSE IN SPEECH AND HEARING I, 1-3 credits

SPA 406 HONORS COURSE IN SPEECH AND HEARING II, 1-3 credits

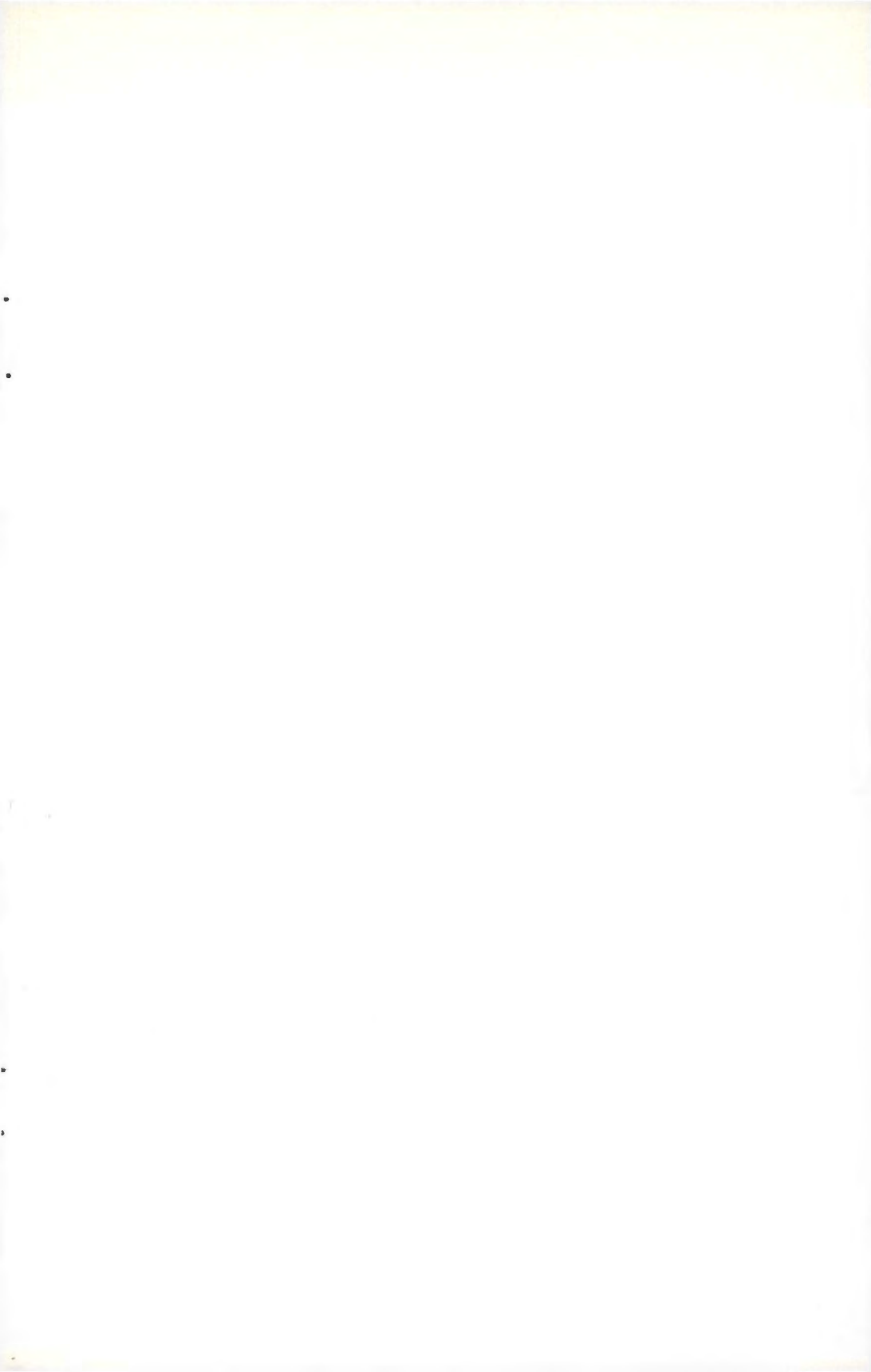
THEATRE DEPARTMENT

Th 098 HIGH SCHOOL THEATRE WORKSHOP (Teachers), 3 credits

Th 099 HIGH SCHOOL THEATRE WORKSHOP (Students), 3 credits

Th 100 VOICE AND SPEECH, 3 credits

- Th 110 GAMES AND IMPROVISATIONS, 2 credits
- Th 120 TECHNICAL PRODUCTION, 3 credits
- Th 200 VOICE AND INTERPRETATION, 3 credits
- Th 210 MOVEMENT AND VOICE, 2 credits
- Th 220 FUNDAMENTALS OF ACTING, 3 credits
- Th 221 PERIOD MOVEMENT AND DANCE, 3 credits
- Th 230 FUNDAMENTALS OF DIRECTING, 3 credits
- Th 240 CREATIVE DRAMATICS, 3 credits
- Th 250 PLAYWRITING, 3 credits
- Th 260 FILM THEORY CRITICISM, 2 credits
- Th 300 STAGE DESIGN AND LIGHTING, 3 credits
- Th 310 COSTUME DESIGN AND CONSTRUCTION, 3 credits
- Th 320 MAKE UP, 1 credit
- Th 330 THEATRE HISTORY I, 3 credits
- Th 331 THEATRE HISTORY II, 3 credits
- Th 332 SHAKESPEARE THEATRE, 3 credits
- Th 333 WORLD DRAMA, 3 credits
- Th 334 MODERN DRAMA, 3 credits
- Th 340 CHILDRENS THEATRE, 3 credits
- Th 341 PUPPETRY, 3 credits
- Th 350 PRODUCTION, REHEARSAL AND PERFORMANCE, 3 credits
(Junior/Senior year may be repeated for credit)
- Th 360 THEATRE WORKSHOP, 3 credits
- Th 361 THEATRE WORKSHOP, 3 credits
- Th 362 THEATRE WORKSHOP, 3 credits
- Th 400 DRAMA THEORY CRITICISM, 3 credits
- Th 410 READERS THEATRE, 3 credits
- Th 420-429 SPECIAL PROBLEMS IN THEATRE, 3 credits





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Systems Analyst for Education and Research	Robert J. Rockinson
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Biological Science	Sydney C. Bausor
Educational Foundations	Angelo J. Orlandi
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English	John P. Watkins
Geography	James T. Anthony
Health and Physical Education	Eugene J. Hester
Industrial Arts	John R. Swearingen
Mathematics	August J. Bethem
Modern Language	John O. Marsh
Music	William L. Dovenspike
Philosophy	Vincent F. Lackner
Physical Science	J. Robert Craig
Psychology	Howard R. White
Public School Nursing	Shirley A. Little
Secondary Education	Arthur L. Ball
Social Science	Phil R. Jack
Special Education	Robert F. Dickie
Speech Pathology and Audiology	John Bitonti
Speech	Carl L. Wilson
Theatre	Roger Emelson

STUDENT AFFAIRS AND SERVICES

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Dean of Women	Nancy J. Tait
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Assistant Deans of Women	Isabella King, Maetroy A. Walker
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Assistant Director of Financial Aid	William F. Behrendt
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Business Manager of Student Activities	John Rhoads
Food Service Manager (Student Union)	Willard Woods
Book Store Manager (Student Union)	John E. Vance

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Purchasing Agent	Thomas W. Johnson
Budget Analyst	Paul Baker
Accounting Technician	John J. DelGrosso
Personnel Affairs	J. Robert Wilson

AFFILIATED SCHOOLS OF MEDICAL TECHNOLOGY

Allegheny General Hospital	R. C. Grauer, M.D. M. L. Moore, MT
Altoona Hospital	Wm. J. Kirsch, M.D. Miss Patricia Walls, MT
Conemaugh Valley Memorial Hospital	S. A. Goldblatt, M.D. Mrs. Jean Boyer, MT
Mercy Hospital	M. M. Bracken, M.D. Miss Eileen Steele, MT
St. Vincent Hospital	R. T. Renz, M.D. Mrs. Elsie Nick, MT
Washington Hospital	E. L. Abernathy, M.D. Miss Cheryl Asburg, MT
Western Pennsylvania Hospital	E. R. Erickson, M.D. Miss Virginia Craig, MT

EMERITI FACULTY

Mr. Frederick Atkins	(1946-1966)
Dr. Asa Anderson	(1956-1969)
Miss Ella E. Bernstorf	(1930-1945)
Dr. O. R. Bontrager	(1936-1962)
Mr. J. Herschel Bowlen	(1946-1969)
Miss Henrietta Carroll	(1926-1957)
Dr. Arthur M. Coon	(1960-1966)
Mrs. Cora Coover	(1929-1933) (1954-1966)
Dr. Shriver L. Coover	(1930-1966)
Mr. Merle O. Covell	(1956-1971)
Dr. Ned (Edward) Culler	(1961-1968)
Dr. Mary R. DeCarlo	(1954-1968)
Mr. Angus H. Douple	(1946-1970)
Mr. Calvin Fleming	(1948-1968)
Mrs. William C. Grimes	(1928-1935) (1946-1956)
Mrs. Lela T. Hamilton	(1952-1968)
Mr. George E. Harding	(1927-1958)
Dr. George Hart	(1938-1968)
Dr. Arthur G. Henry	(1958-1968)
Miss Louise A. Hildreth	(1926-1962)
Mr. Aaron J. Hoover	(1936-1967)
Dr. Jack F. Hoyes	(1946-1971)
Mr. Frank Lenox	(1947-1963)
Dr. John F. Lewis	(1945-1966)

Mrs. Ada K. Marsh	(1945-1965)
Mr. Kryl W. Richards	(1961-1970)
Miss Eleanor Rowe	(1959-1971)
Miss Emma Sacco	(1928-1957)
Mrs. Dorothy K. Salisbury	(1929-1941)
Mr. Anthony Stavaski	(1935-1965)
Dr. K. Fife Sterrett	(1955-1964)
Dr. Harold W. Traister	(1947-1957)
Mr. Paul N. Walker	(1930-1965)
Dr. Malverne R. Wolfe	(1947-1969)

FACULTY

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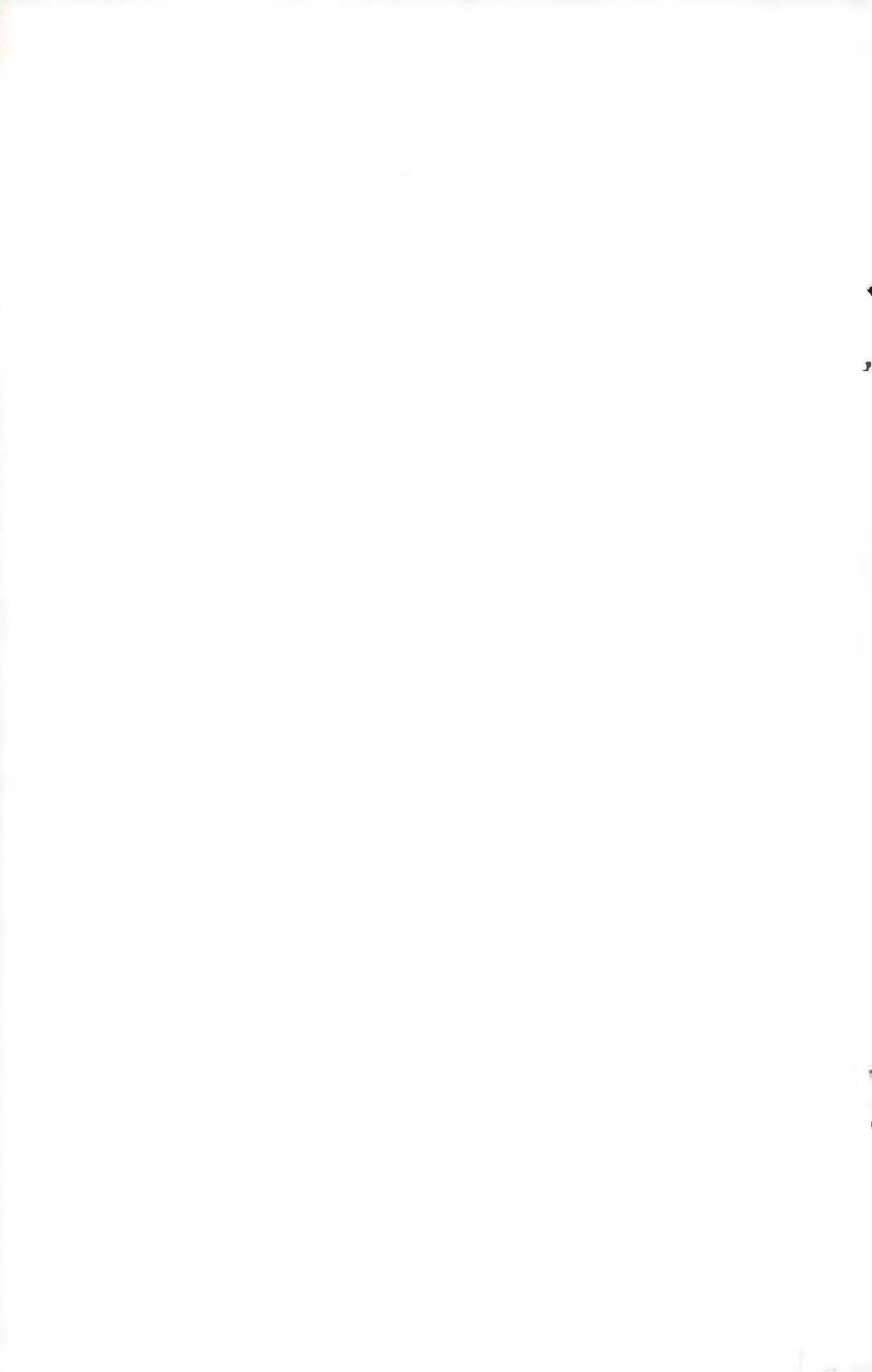
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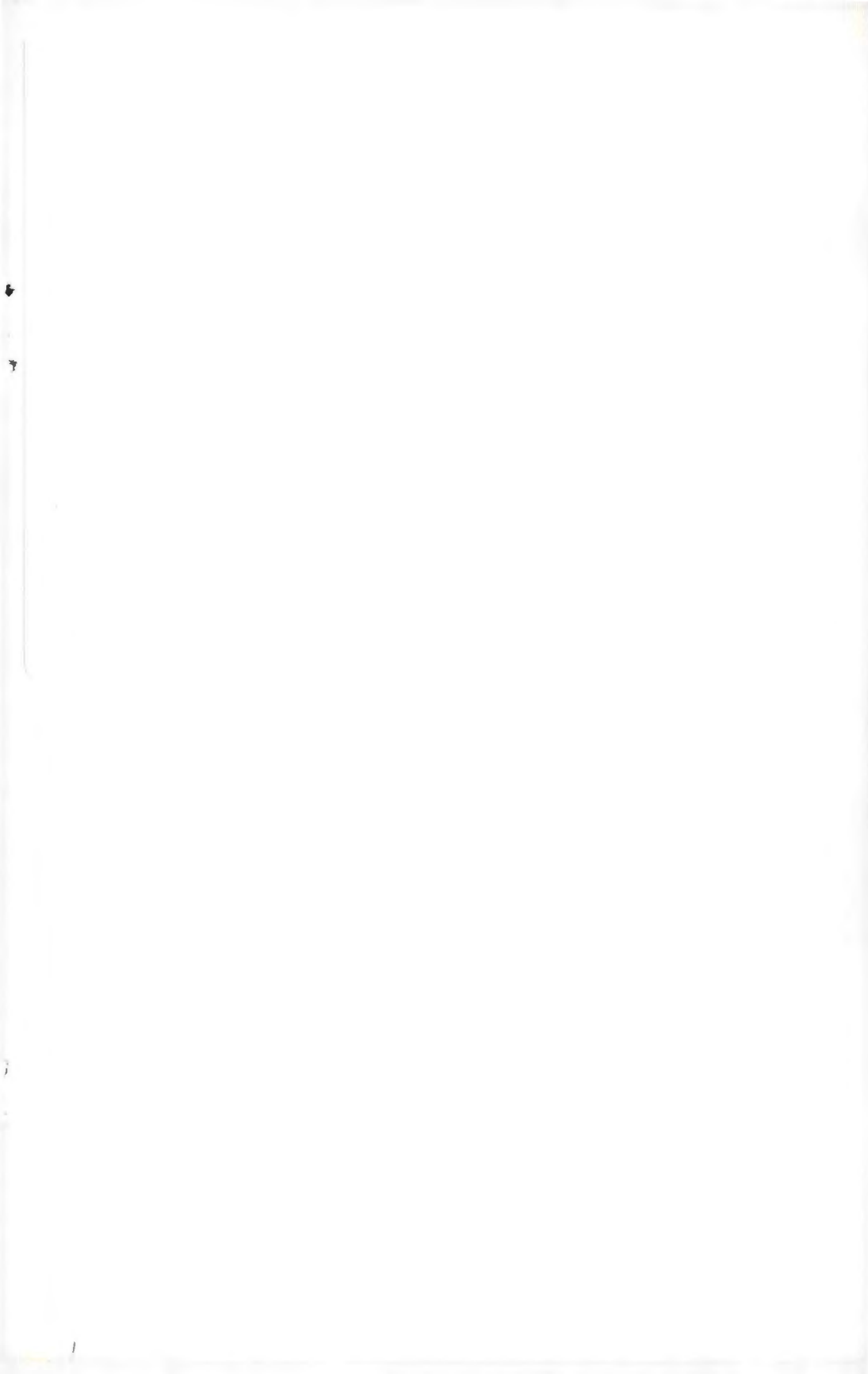
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