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& H.E. Kemper

Mary Hahn

1963-1965
BACCALAUREATE
DEGREE
PROGRAMS



CATALOGUE ISSUE
VOLUME 68 NUMBER 1



HAROLD E. KEMPER
Registrar and Director Of Admissions
California State College
California, Pennsylvania

AUG 16 1965

MAR 1 - 1966



CALIFORNIA STATE COLLEGE
California, Pennsylvania

Calendar 1963-1964

FALL TRIMESTER

Registration	Monday, September 30, 1963
Registration and Classes	Tuesday, October 1, 1963
Thanksgiving Recess Begins	Thursday, November 28, 1963
Thanksgiving Recess Ends 8:00 A. M.	
.....	Monday, December 2, 1963
Christmas Recess Begins	Saturday, December 21, 1963
Christmas Recess Ends 8:00 A. M.	Thursday, January 2, 1964
Winter Commencement	Saturday, January 25, 1964
Trimester Ends	Wednesday, January 29, 1964

SPRING TRIMESTER

Registration	Thursday, February 6, 1964
Registration and Classes	Friday, February 7, 1964
Spring-Easter Recess Begins	Thursday, March 26, 1964
Spring-Easter Recess Ends 8:00 A. M.	Monday, March 30, 1964
Spring Commencement	Saturday, May 23, 1964
Trimester Ends	Friday, May 29, 1964

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CATALOGUE ISSUE
VOLUME 68 NUMBER 1



CALIFORNIA STATE COLLEGE

California, Pennsylvania

THIS COLLEGE IS A MEMBER
OF THE
AMERICAN ASSOCIATION OF COLLEGES
AND IS FULLY ACCREDITED BY
THE MIDDLE STATE ASSOCIATION OF COLLEGES
AND SECONDARY SCHOOLS
AND
THE NATIONAL COUNCIL
FOR THE ACCREDITATION OF TEACHER EDUCATION

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TOMORROW IS NOW: "Have we been honest enough to make clear to our young people that we could not, if we would, provide the specific education that would equip them for the coming world, whose face no one knows? Have we told them bluntly that the best we can do is give them skills, to train the mind so that it becomes a flexible tool, to provide techniques for learning and for finding information, that will work to solve new problems?"

Quoted from —

MRS. ELEANOR ROOSEVELT

I. California Today

THE COLLEGE

OBJECTIVES

THE CAMPUS

The College

The California State College is a state supported institution established and maintained to help provide the schools of Pennsylvania with well trained, competent teachers, as well as to provide a liberal education for those not planning to teach. The program for teachers provides the student with a background in general education that is characteristic of educated men and women everywhere, a thorough training in the selected area of specialization and well designed courses in professional education. In addition, the college offers a variety of co-curricular activities of a social-cultural-academic nature designed to provide the student with the opportunity to develop his potentialities as an individual.

To these ends the Commonwealth of Pennsylvania has provided the buildings, the professional and the non-professional staff through many years of legislative support. The several fees paid by students represent only a portion of the cost of operating the college. Public support is the primary source of the college's funds.

As a result of its financial interest, the Commonwealth has established control of the state colleges through the Department of Public Instruction. Since there are fourteen such institutions the Department and the Board of College Presidents coordinate certain activities common to all state controlled schools. In addition, each school has a Board of Trustees which assists the President in administration. Other supervision and control comes from such state agencies as the State Board of Education, the Auditor General, the Department of Property and Supplies and the General State Authority. Each state college has the support of many vital agencies whose resources may be utilized at any time.

The curricula at California are established in broad outline by the Department of Public Instruction by means of its several councils and study groups. The special curricula are assigned to each college with California being assigned Industrial Arts, Atypi-

cal Education, Elementary, Secondary Education and Liberal Arts. Students may elect to specialize in any of these areas or their subdivisions. Other state colleges offer additional specializations.

In order that additional study opportunities might be made available the college sponsors Summer Tours which make available low cost travel-study trips for interested persons.

Another constantly expanding feature of the state college is its in-service program for teachers in the service area. Under the leadership of its several departments, the college sponsors evening programs for college students and experienced teachers wherein exchanges of experiences result in a more effective college program and a stimulated public school program.

The faculty at California represents a geographic cross-section of the United States, a long list of colleges and universities, and many years of graduate training. In addition to instruction and extra-curricular activities, many members of the staff are engaged in writing and research in their field of interest.

Additional information on the faculty, administrative procedures, curriculum and student life are to be found in the appropriate division of the *California Bulletin*.

The California State College has had a history of continuous growth in stature, size and influence since its early days as an academy. Founded by the public spirited citizens of the borough in 1852 it became a normal school under a state charter and in 1914 was acquired by the Commonwealth of Pennsylvania and thus became a state owned institution.

In 1928, the State Council of Education granted to the college the right to offer a four-year curriculum in elementary and secondary education. In 1929, the school became the State Teachers College and has graduated students with the degree of Bachelor of Science in Education since that time. In 1959, the State Legislature voted to delete the word Teachers from the school's title and, as a result, all of the fourteen state teachers colleges are now state colleges. California is now known as California State College.

The present prospects for future growth are exceptional. The college enrollment in 1962-63 was 2740 and a special program for teachers-in-service attracted more than 220 part-time students.

A program of graduate education, initiated in 1961, leads to the degree of Master of Education and has approximately 180 students currently enrolled. In addition, a series of workshops and conferences provide in-service training and professional stimulation for the college service area consisting of Washington, Fayette, Greene and Somerset Counties.

A Liberal Arts curriculum was approved and classes started in September 1962.

The college is located at California, Pennsylvania; a community of 7,500 persons located on the Monongahela River, 35 miles south of Pittsburgh; 16 miles from Uniontown; 25 miles from Washington, Pennsylvania; and 25 miles from Waynesburg. The college can be most easily reached over U. S. Route 40 which comes within four miles of California at Malden or over Pennsylvania Route 88. From the eastern part of the state Interstate Route 70-S connecting with the Pennsylvania Turnpike at New Stanton offers easy access to Route 88 at Speers (near Charleroi).

The community is within easy reach of the lower Monongahela steel and coal producing region and is served by several bus lines. A network of secondary roads provide transportation for a large commuting population.

Objectives of the College

California recognizes that an educated person must have a background of general knowledge, a mastery of his area of specialization, and adequate professional training. The California program of teacher education is designed to provide this training through its competent faculty and a revised curricular and co-curricular program.

To secure these goals the faculty and administrative staff, after long and free discussion, have adopted the following resolution:

The primary purpose for maintaining California State College, is to educate people for the teaching profession. To accomplish this goal we seek:

To provide the opportunity for a general education in those areas necessary to help students become responsible citizens and capable leaders in a democratic society.

To develop their intellectual, social, physical, cultural, spiritual, and aesthetic potentialities.

To prepare students for teaching by requiring a mastery of professional knowledge and skills essential to all teaching and special proficiency in their areas of specialization.

To lead the student to develop a deep and abiding commitment to the concepts, methods, and procedures of a democratic society.

To help the student become a creative person capable of making critical judgments based upon knowledge and reason.

A secondary purpose of the college and faculty is to encourage the teaching profession to gain strength, prestige, and

standards through research, faculty professional activities and continued evaluation.

To summarize: In educating a student at California State College, our goal is to help in the development of a person who will be generally educated, professionally oriented, creative, critical, and loyal.

Students come to California to become teachers and in addition to the standards established by the Admissions Committee, should possess a love of learning and a spirit of inquiry that will enable them to formulate questions, seek the solutions to such questions and join with enthusiasm as others seek to achieve similar goals.

TEACHER EDUCATION CURRICULA

The program for the training of teachers at California is not greatly different from any good program of higher education. It incorporates the aims of a broad liberal education, the techniques of professional education and the academic training in depth that is required for success in any field of endeavor.

Instruction at California is planned to help each student to acquire the ability to communicate with others, to understand himself and his relationship to others, to appreciate the meaning of his historic past, to relate himself to the scientific world in which he lives and to develop aesthetically. The general education program is meant to be a quality program which will open the way to an interest in things intellectual which will permit the student to continue to learn from study and experience long after graduation.

Professional education courses are meant to be the means whereby the prospective teacher, through a combination of lecture, discussion, and experience develops the techniques for transmitting the concepts and information he acquires to the student he later teaches. Since individual differences are so great and since learning takes place under a variety of handicaps and/or motivations, the good teacher is one who knows something of the above and adjusts to them to the mutual advantage of student and pupil.

The academic disciplines or other areas of specialization provide California students with education in depth. It is the ambition of each department to provide training that will serve as a firm foundation for teaching, future study, or additional independent achievement. The completion of a college education does not provide the student with all of the answers but only with the insight by which he continues the search.

Briefly, work at California consists of three inter-related groups of courses: the basic or general education courses, the professional or "education" courses, and the specialized courses. Together they help to equip students with the breadth of knowledge, the power of understanding, and the analytical ability to become able members of the profession and worthy citizens.

LIBERAL ARTS AND THE COLLEGE

Living in the 20th Century calls for toleration, understanding, imagination, empathy, breadth of comprehension, self-discipline — the traditional attributes of the liberally educated man. A cultural program designed to foster these qualities will prepare the student both for enriched personal experience and world citizenship. The liberal arts program is designed to develop in students the capacity to understand, to make sound judgments, to communicate effectively, to grow aesthetically and to prepare for intelligent and effective participation in the family, community, national and international order.

Accomplishment of these aims is sought by helping the student to:

- (1) foster a continuing intellectual curiosity.
- (2) develop an ability to think accurately on the basis of evidence.
- (3) strengthen the skills for effective communication.
- (4) appreciate other cultures through competence in their languages.
- (5) increase the awareness of beauty through opportunities for achievement in one or more of the creative arts.

- (6) develop a satisfactory code of personal behavior.
- (7) improve and maintain mental and physical health.
- (8) understand man's relationship to the total environment, both physical and cultural — to establish a concept of man's place in the universe and to encourage his emergence as an enlightened social being.
- (9) apply these objectives to a field of specialization through depth of scholarship as well as to the broad fields of human knowledge.

GRADUATE STUDIES

California State College offers work leading to the Master of Education degree with specialization in Elementary Education and Industrial Arts Education.

The program is available to qualified teachers-in-service and other graduate students who meet the standards approved by the college and the State Council of Education. Graduate work is offered during evenings and on Saturdays during each regular session. Graduate work is also offered during the summer sessions.

Graduate work at California is especially designed for the classroom teacher and includes classroom, laboratory, clinical and research experience that will add breadth and depth to the preparation of the teacher. The program for each person admitted to the graduate school will be planned in cooperation with the advisor and the graduate council and will be based upon the previous training and experience of the student. The graduate degree is meant to be a meaningful program for the classroom teacher and will be custom made for each individual candidate.

Additional information including a listing of all the requirements will be found in the Bulletin of the Graduate School.

The Campus, Buildings

Nineteen buildings are arranged in a quadrangle on a campus of 40 acres. The entire campus has been laid out by a landscape architect, with hedges, shade trees, flower plots, and shrubbery. Many uncommon plants and trees are included in the collection, which besides adding beauty to the campus, offers a valuable laboratory for students in the biological sciences. Large scale improvements and additions to the campus plantings have been made recently.

Main Hall, the oldest building on the campus, was first used in 1870. The administrative offices, and a number of classrooms are located in this building. The Audio Visual Center is located in this building.

North Hall, built in 1874, serves as a women's dormitory. The Colonial Room and College Infirmary are on the first floor, as well as the offices housing Guidance, Curriculum, Student Teaching, Graduate School and Placement. The ground floor houses the rooms for the commuting women.

South Hall, built in 1876, has been completely remodeled into classrooms and offices. The President's residence occupies the front portion of this building.

Dixon Hall, built in 1907, in addition to serving as a women's dormitory includes the Georgian Dining Room. The ground floor houses the Day Men's Room.

Science Hall, old, which was built in 1892 and remodeled in 1938, is now used for classrooms.

The *Noss Laboratory School*, built in 1930, is a center for student teaching, including observation and demonstration work. A special Education annex has recently been added.

The *Industrial Arts Building*, opened for use in 1939, is on the east campus. This building is one of the best planned and

most complete of its kind in the country. It provides laboratories, classrooms, offices, storage rooms, and shop facilities for printing, woodwork, painting, machine shop, sheet metal, forging, welding, auto mechanics, electricity, and ceramics.

Herron Hall, facing Third Street, is the college gymnasium. The first floor includes a classroom, a play room, and locker rooms for men and women; on the second floor are a large gymnasium and four classrooms. The central portion was built in 1930; the classroom wings were added in 1932; and the east wing in 1939. It contains one of the best swimming pools in Western Pennsylvania. The glazed tile pool is illuminated indirectly by disk-shaped chandeliers, as well as by underwater lights. The tank, with a sloping tiled bottom and permanent black swimming lanes, is 75 feet long and 25 feet wide.

Vulcan Hall, immediately behind the main building was built in 1892 as a gymnasium. The upper floor of Vulcan Hall now houses the Student Lounge. The decorations and equipment of modern design were planned and executed largely by the Industrial Arts Department. The room is unique for its use of bright color in the furnishings and decorations. A large mural depicting student life on the campus was designed and painted by a former student. The student-owned Snack Bar occupies a part of the ground floor.

Johnson Hall, located on Hickory Street, near the athletic field, the gymnasium, and the Industrial Arts Building, houses 125 men. It includes an apartment for the Dean of Men, beautiful lounges, recreation and service rooms. The building is fireproof and modern in every respect; the furnishings throughout are entirely new. It was first occupied, September, 1952.

The *Robert McCurdy Steele Auditorium*, a building named in honor of a former president, is located along Third Street on the eastern edge of the campus and has auditorium facilities for 900 persons. The building was dedicated in October, 1953. There is adequate parking space adjacent to the building.

College Book Store, occupies a structure in the center of the campus near the Snack Bar. Text Books and students supplies are available in this newly renovated building.

The new *J. Albert Reed Library* houses 50,000 volumes in conjunction with study lounge facilities for recreational read-

ing, seminar space, exhibit areas, and a classroom for the teaching of library techniques. An adequate annual budget maintains microfilms and microcard collections; a spoken-word 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. Five professional librarians interpret the collection to the campus and account for substantial increases in holdings each year, particularly in the field of Slavic studies. Through service and through facilities, the library seeks to anticipate and to satisfy the demands of higher enrollment and of expanded curriculums.

New Science, a new and modern Science Building completed in 1961 and now serves the needs of the college. Well-planned chemistry, physics, biological science and elementary school science laboratories serves as the basis for an expanding science program.

Binns Hall, a modern, attractive dormitory for women, opened in the fall of 1963, is located on the northern edge of the campus.

McCloskey Hall, a modern, convenient dormitory for men is adjacent to Johnson Hall and the recreational area.

New Building. The projected building program is indicated on the campus map.

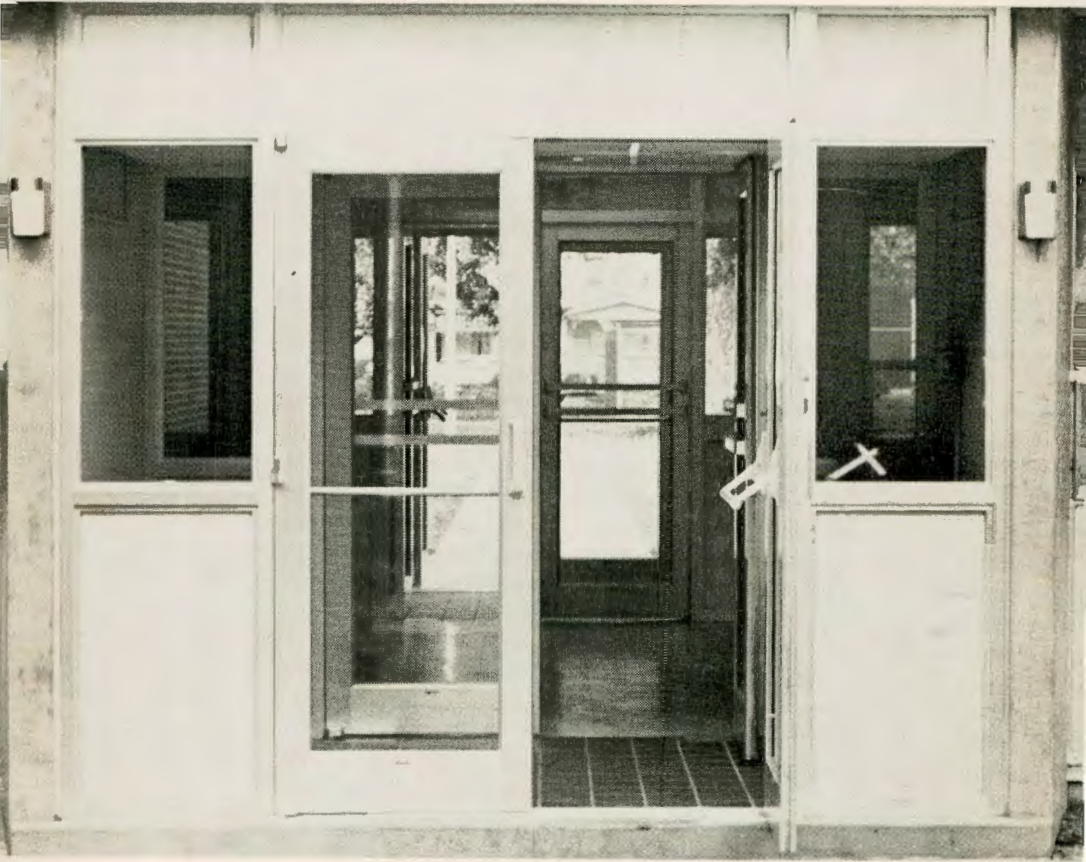
DOORWAYS
TO
EDUCATION
The Campus

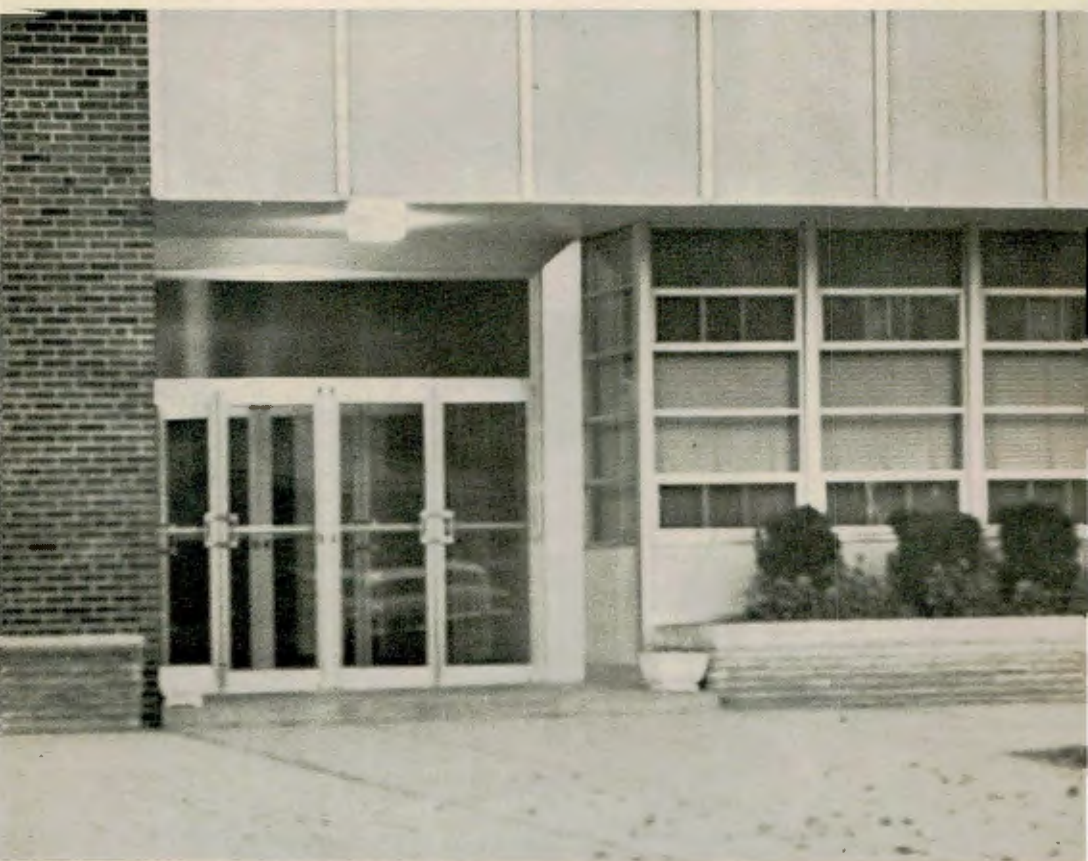


<i>page i</i>	J. Albert Reed Library
<i>page ii</i>	McCloskey Hall — a new dormitory for men
<i>page iii</i>	Binns Hall — a new dormitory for women
<i>page iv</i>	Science Hall
<i>page v</i>	Industrial Arts
<i>page vi</i>	Robert McCurdy Steele Auditorium
<i>page vii</i>	Johnson Hall — residence hall for men
<i>page viii</i>	Herron Hall — physical education
<i>page ix</i>	Theodore B. Noss Laboratory School
<i>page x</i>	Dixon Hall — Dining hall and women's residence
<i>page xi</i>	Old Main — a campus landmark since 1865
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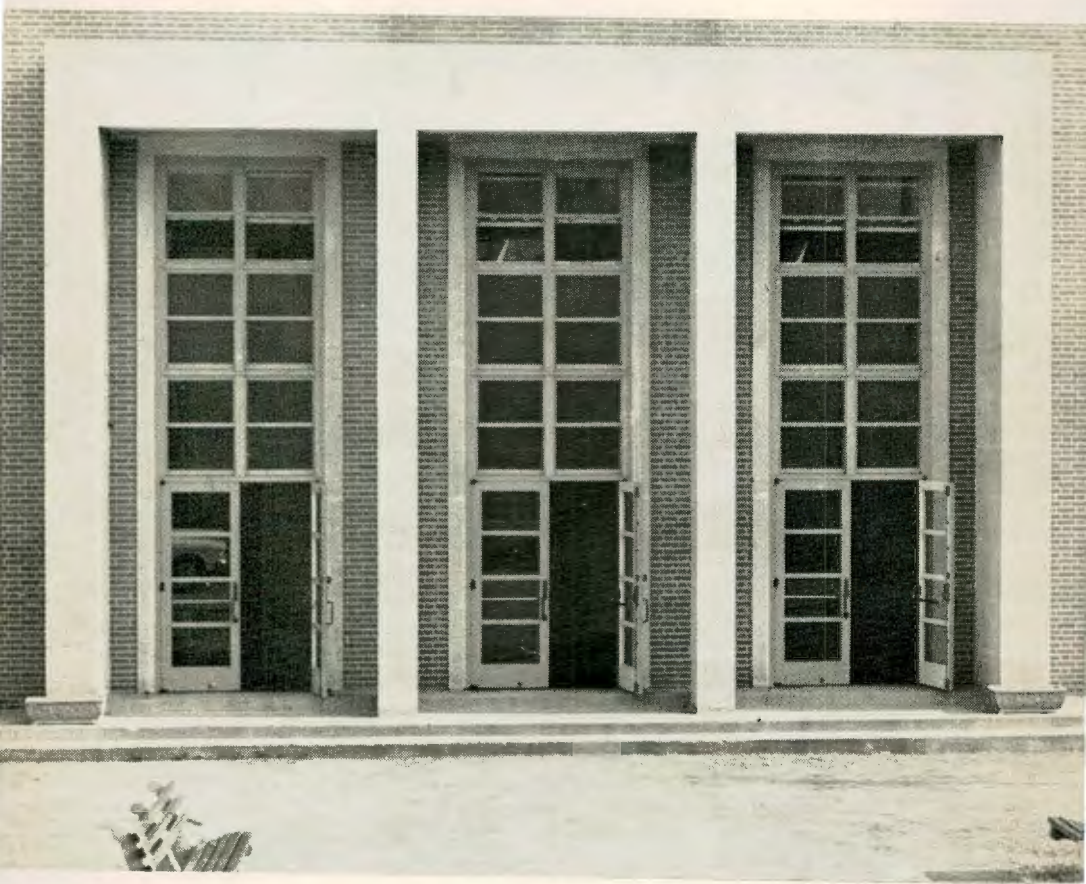












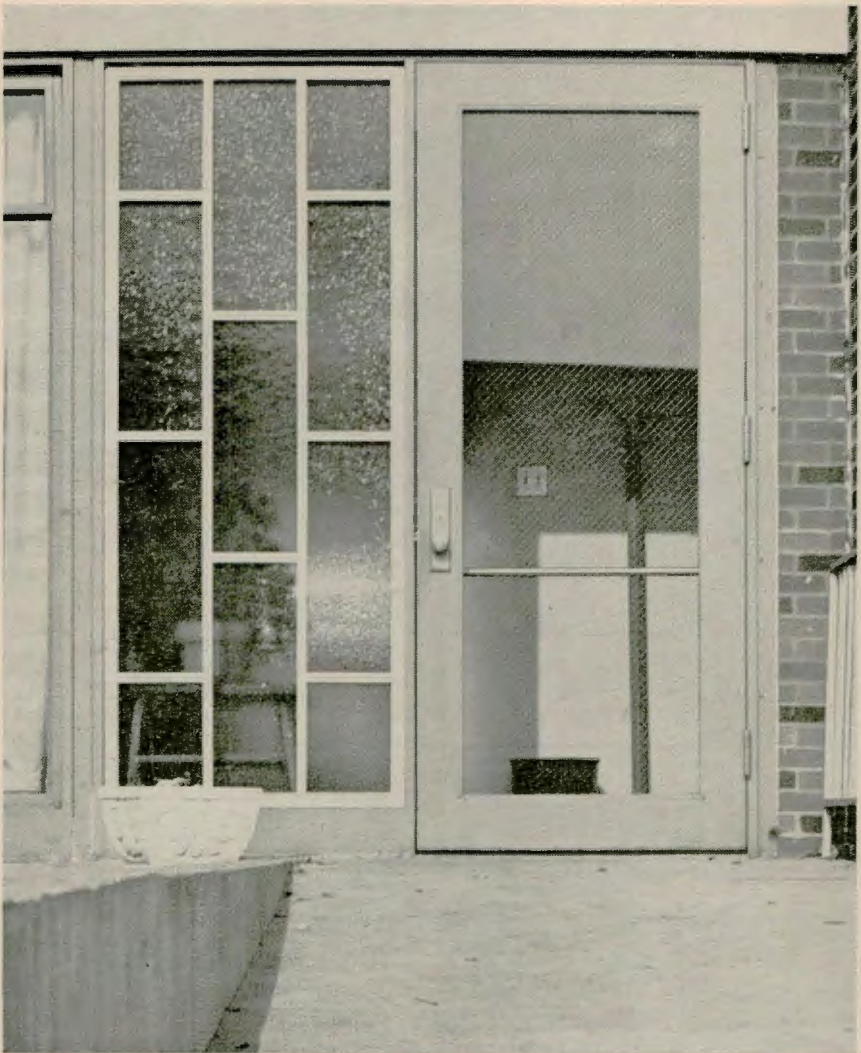














COAL CENTER - 1

CALIFORNIA

HISTORICALLY FAMOUS AS
MEETING PLACE OF SETTLERS
AND INDIANS IN 1767

FOUNDED

1769

II. The California Student

HOUSING

COMMUTER HEADQUARTERS

HEALTH SERVICES

STUDENT ACTIVITIES

SOCIAL LIFE

COMMUNITY CHURCHES

Housing

GENERAL HOUSING POLICY

College policy is designed to provide safe, comfortable housing for students in an atmosphere conducive to serious study, personal growth, and congenial student relationships under competent adult supervision.

HOUSING FACILITIES

Dormitories for Men

Johnson Hall (1952) provides comfortable living quarters for 123 men. A completely modern dormitory, McCloskey Hall, housing 200 men will open in October, 1963.

Dormitories for Women

North, Dixon, and Binns Halls, located on campus, provide safe and comfortable quarters for about 400 women. North and Dixon Halls have recently been redecorated and re-furnished. Binns Hall, a fully equipped modern dormitory, will open in October, 1963.

Fleck Hotel, privately owned and recently re-conditioned, and the New Green Street private dormitory are located about three blocks from campus. These units house about 150 women.

DORMITORY ASSIGNMENTS AND SUPERVISION

All vacancies in college operated or supervised dormitories must be filled before non-commuting students are given permission to live in the community.

Assignments to dormitories are made by the Personnel Deans; supervision is provided by members of the Student Personnel Staff.

Beginning June, 1963, *all* resident women (including student teachers) will be housed in college supervised dormitories, or supervised sorority houses. Dormitories directly controlled by the college will be filled first. After these dormitories are filled, women will be assigned to privately owned college supervised dormitories. Assignments will be made according to the date the student was accepted by the college.

All entering resident freshman men *must* accept assignment to college operated and supervised dormitories and to the college dining room as a condition of admission. Beginning October, 1963, all second semester resident freshman men *must* accept the same type of assignment.

Sophomore resident men will be assigned to college dormitories so long as space is available. Junior and Senior resident men may apply for dormitory housing and will be assigned as space permits.

ACCOMMODATIONS IN THE COMMUNITY

Private homes, apartments, and fraternity houses in the community accommodate several hundred male upperclassmen. Men who live in the community are required to find their own housing. Students and their parents should enter into housing agreements with the householder. Agreements should be in writing, and be signed by the householder, the student and his parents. The college cannot be a party to community housing agreements and will not become involved in disputes arising from them. However, the college reserves the right to take appropriate action in cases of serious violation of law or college regulations, or if living conditions imperil student health or safety. Rentals for rooms in town should not exceed the official dormitory rate for similar accommodations. Rates for single rooms or for units with cooking facilities will be slightly higher.

A community Housing Directory is available in the office of the Dean of Men. Students please note that directory listings does not indicate or imply college approval.

METHOD OF PAYMENT OF HOUSING FEES

Dormitory and non-dormitory resident students.

Students who live in Dixon, North, Johnson, Binns or McCloskey Halls will add the amount of their Housing Fee (\$272.00 per trimester) to the amount of their Enrollment Fee and write *one* check for the total payable to the *Commonwealth of Pennsylvania*.

Students who live in the Fleck or Green Street dormitories will pay their room rent (\$128.00 per trimester *directly to the owner of the dormitory*). The amount of their boarding fee (\$144.00 per trimester) is to be added to the amount of the Enrollment Fee and written in one check to the *Commonwealth of Pennsylvania*.

Students living in homes in town and taking their meals in the college dining room will pay their room rent directly to their landlord. The amount of their boarding fee (\$144.00 per trimester) is to be added to the Enrollment Fee and paid in one check to the *Commonwealth of Pennsylvania*.

DINING ROOM POLICY

For Dormitory Students

Residents of all college operated or supervised dormitories are required to board in the college dining room.

For Non-Dormitory Students

Students living in town may request assignments to the Dining Room. Such assignments can be terminated only at the conclusion of a quarter. Students, in any category, who take their meals in the Dining Room are subject to all dining room regulations.

Non-dormitory students who withdraw from the dining room at any time except the end of a trimester must call at the office of the Dean of Men or Women on or before Wednesday of the week of withdrawal to receive official withdrawal forms. Unless this procedure is followed, dining room charges will continue and must be paid by the student.

CANCELLATIONS

Students who apply for and are assigned housing in dormitories and enter college but do not honor their housing commitments, will thereafter be ineligible to apply to any housing facilities controlled by the college.

CONDITIONS OF WITHDRAWAL FROM HOUSING FACILITIES

When a student accepts a housing assignment in the dormitory, he enters into a contract for one trimester. Withdrawals from the dormitory during a trimester are permitted only for exceptionally urgent reasons, accident, critical family circumstances are considered exceptionally urgent reasons. (Requests to commute, live in town or in a fraternity house are not considered urgent reasons.) Credit for the unused portion of the housing fee will be given only in exceptional cases as listed above, or in case the withdrawing student can be replaced immediately. Requests for credit or refunds must be addressed in writing to the President of the College to be submitted to the Board of Trustees for approval. *Credit will not be given or refunds made in any other cases.*

CLOSING OF DORMITORIES

Students are not permitted to remain in dormitories when classes are not in session.

HOUSEKEEPING

Each resident is responsible for keeping his own room clean and neat. All residents are expected to cooperate in keeping stairs, halls, lobbies, lounges, and the areas surrounding dormitories free of trash and litter.

STANDARDS OF CONDUCT

A student may be expelled from, or refused admission to college dormitories if his conduct in the dormitory or on campus is deemed unsatisfactory. Off-campus residents are expected to maintain a standard of behavior that will be a credit to them and to the college.

Complete information about the rules and regulations that govern dormitory students may be obtained from the Dean of Men or the Dean of Women. The Vulcan, the student handbook which is issued annually and given to each student upon registration, contains detailed information concerning activities and organizations.

DAMAGE

Residents jointly are responsible for the condition and the care of their rooms, equipment and furnishings. Charges for damage beyond usual wear and tear will be assessed against occupants jointly, unless personal negligence can be proved. Charges for damages to a corridor or other public area will be assessed against all residents of that floor or area. All damage charges must be paid before offenders receive grades, credits, or clearance to register for the next trimester.

SAFETY

Residents may have radios in their rooms. Other appliances must be used exclusively in the areas provided for them. Accumulations of waste paper or other litter, inflammable liquids, the keeping of firearms, smoking in posted areas, keeping of pets, are prohibited as fire, health and safety hazards. Rowdy behavior is prohibited as a major cause of personal injury or damage to property.

COMMUTER HEADQUARTERS

A Snack Bar and limited lounging and recreation space for commuters, are provided in the Vulcan Hall. Limited space for study and some lockers are available for women in the commuter's room in North Hall; for men in Dixon Hall.

Health Services

Purposes of the Health Service

To conduct periodic physical examinations, to enforce health regulations, to provide emergency infirmary treatment for ill or injured students.

GENERAL PROCEDURES

Students who become ill or injured on campus will be taken immediately 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 upon their return to receive permission to re-enter classes and dormitories.

GENERAL SERVICE

Free medical service offered in some colleges is financed by collecting a Health Fee from each student each term. California State College does not collect a Health Service Fee but 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 services is provided without charge for students who reside in all campus dormitories, in Fleck Hotel, and the Green Street dormitory. Free service is limited to three days, after which a charge of \$1.00 per day is made. Physicians fees, fees for special nursing and costs of prescription drugs must be paid by the student.

INFIRMARY SERVICE TO COMMUTERS AND TOWN DWELLERS

Commuting students, students who live in fraternity or sorority houses or in homes in the community, may receive first aid or emergency treatment in the college infirmary. If patients are unable to leave the infirmary, they will be assessed \$3.00 per day including meals. Physicians fees, fees and expenses of a special nurse, and the costs 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 — should plan to return home as soon as possible.

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

Unless parents are sure that their children are fully covered by the health, accident, and physicians service insurance carried by the family, they should subscribe to the policy available in the Student Activities Office. This policy will cover expenses for most routine accidents and illnesses, allay your anxiety, and simplify payment of doctor's fees.

CHRONIC DISEASES

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

SPEECH DEFECTS

The speech status of entering students will be noted on their admission forms as *clear* or *deficient*.

Entering students with speech deficiencies will be reported to the Dean of Instruction for assignment to Speech Clinic for remedial work. The Speech Clinic will make periodic reports concerning the student's progress to the office of the Dean of Instruction.

Student Activities

A well-rounded program of student activities, supervised by Student Personnel offices and administered by a Director of Student Activities, provides numerous opportunities for valuable co-curricular experiences. In addition to intra-mural and inter-collegiate, athletics, the activity program includes student governmental bodies, a variety of faculty-sponsored subject-related, special interest, social, and professional organizations, and several important student-faculty committees. Students are encouraged to participate actively in the co-curricular areas which meet their special interests and needs.

Social fraternities and sororities, operating under faculty advisors and within administrative policy, offer students experience in independent group living and provide additional opportunities to develop traits of leadership and practice in accepting and discharging responsibilities.

All regularly enrolled full-time students are members of the Student Activity Association, Incorporated — a non-profit corporation which manages all co-curricular affairs.

SOCIAL LIFE

Through receptions, parties, teas, dances, and other social events held frequently during the college year, every possible effort is made to create a wholesome social atmosphere among the students. The program is designed to stress the importance of a person's being prepared to meet the social amenities.

Through the Student Union Building Committee comprising both student and administrative personnel of the college, there is now in the process of planning a Student Union Building which will serve as a social, educational and cultural center of the college. Progress to date indicates that this building will become a reality in the near future as a part of the rapid expansion program of the college.

COMMUNITY CHURCHES

There are churches of the following denominations in California: Baptist, Christian, Methodist, Nazarene, Presbyterian, Roman Catholic, and Russian Orthodox. A Jewish Synagogue is also located in the Borough. Other religious denominations have churches in nearby communities. Students are welcome in these churches, some of which provide activities of special interest to students of their faith. Students are encouraged but not required to participate in religious activities of their own choosing.

III. Entrance to California

ADMISSION PROCEDURES

EXPENSES

FINANCIAL AID AND EMPLOYMENT

Admission Procedures

Entrance requirements are established for the purpose of determining, insofar as possible, those persons who are most likely to succeed in college. By doing this, California State College is maintaining its obligation to those students who expect to graduate from a school whose standards are worthy of respect. Proper admission standards also help indicate to the prospective student his chances for college success.

Admissions standards are constantly being studied by the Admissions Committee composed of members of the faculty and administrative staff and are being raised to satisfy the exacting demands upon teacher education.

Education is an important and exacting job that makes it necessary for the teacher to possess qualities and abilities of a special type. The teacher must be academically sound, must be physically able, and must possess character and personality traits that will enable him to represent the standards deemed desirable by our society. In keeping with these needs, the admissions program at California State College is summarized as follows:

1. General scholarship as evidenced by graduation from an approved secondary school or equivalent preparation as determined by the Credentials Evaluation Division of the Pennsylvania Department of Public Instruction.

2. Aptitude and ability to do college work as measured by a reliable test, such as the American Council on Education Psychological Examination, the School and College Ability Test, or College Boards. Students who score in the lower percentiles will not be admitted.

3. Satisfactory character and personality traits as well as proper attitudes and interests as determined by the high school principal, guidance director, or other school official acquainted with the student.

4. Health and physical condition as evidenced by a health examination by the student's family physician reported on the adopted form and approved by the College physician. No student who has, in the opinion of the college, disabilities which would impair his service as a teacher will be admitted.

5. Recommendation of two or more college staff members following a personal interview of the applicant.

6. For admission to special curricula the college may require the candidate to take an appropriate aptitude test in the special field in order to obtain further evidence of ability to succeed in the student's chosen field.

Requests for the proper forms for admission should be addressed to the Director of Admissions, California State College, California, Pennsylvania. The following information applies to student categories as follows:

NEW APPLICANTS

1. File the following forms with the Director of Admissions, California State College, California, Pennsylvania:

(a) Application and Personnel Record (blue form)
— BY THE APPLICANT. Your signature is required on this form.

(b) Medical Record (yellow form) — BY THE PHYSICIAN.

(c) Record of your secondary school work (white form) — BY THE HIGH SCHOOL PRINCIPAL. Your high school record must include a recommendation and your class standing. If you are still attending High School, have your high school principal complete the form up to the present date.

2. It will also be necessary to send a deposit of \$10.00. This deposit must be sent along with the blue application form. This is a guarantee of the intention of the student to enter college for the term of trimester designated. It is deposited with the Revenue Department to the credit of the student's contingent fee. Check or Money Order for this amount must be drawn to the Commonwealth of Pennsylvania.

3. Arrange to take the Scholastic Aptitude Test Section of the College Boards. Have the scores sent to the Director of Admissions.

TRANSFERS FROM ANOTHER COLLEGE

1. File the application forms with the Director of Admissions, California State College, California, Pennsylvania, according to the above directions.

2. Send the advance \$10.00 deposit to the Business Manager, according to the above directions.

3. Submit an official transcript of the work taken at all other colleges attended, together with a statement of honorable dismissal. This dismissal must be academically clear as well as being clear insofar as character is concerned. This information must be sent directly from the other college to the Director of Admissions, California State College, California, Pennsylvania.

4. Send your college board scores to the Director of Admissions.

REVISION

The testing and admissions program shall be reviewed each year by the Admission Committee. Proposed changes will be submitted to the Administrative Council and faculty for approval.

APPLICATION OF THE ADMISSION REQUIREMENTS

1. *General Scholarship.* The applicant must have been graduated from a four-year high school of accredited standing or an institution judged by the Secondary Education Evaluation Division of the Department of Public Instruction, Harrisburg, Pennsylvania, to be the equivalent.

All applicants must make a satisfactory score on the admission examination.

2. *Command of English* and other evidence of intellectual fitness. Students who demonstrate a lack of competency to

carry college work in English Fundamentals or other subjects may be required to take remedial courses without credit.

3. *Character and Personality.* The candidate must be recommended by the high school principal or guidance counselor of his secondary school for trustworthiness, initiative, industry, cleanliness and social adaptability.

4. *Health.* The applicant must possess a clean bill of health, together with evidence of emotional stability, of absence of physical defects which would interfere with his successful performance of the duties of teaching, and of absence of a predisposition toward ill health. He must present a certificate of examination furnished by the College and signed by a physician legally qualified to practice medicine in the Commonwealth of Pennsylvania. This form will be checked by the examining physician at the College.

The student may be required to undergo re-examination.

The applicant may be rejected for:

(a) Incurable defects or diseases of the heart, lungs, kidneys, digestive system, nervous system, skin, organs of the special senses, and the thyroid gland, and for epilepsy or nervous instability.

(b) Defective vision of marked degree.

(c) Permanently impaired hearing.

(d) Marked speech defects.

(e) Unsightly deformities.

(f) Marked obesity.

Students with remedial defects may be accepted on condition that immediate treatment be undertaken for the removal of these defects.

ADMISSION OF OUT-OF-STATE AND FOREIGN STUDENTS

Out-of-state and foreign students may be admitted to the College when their admission and instruction does not interfere with the admission and instruction of students resident in the Commonwealth. In the cases 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.

TEACHERS IN SERVICE

Teachers in service need file only a single admission form for approval for part-time work.

POST-GRADUATES

Applicants who are graduates from other colleges and desire to attend California State College full time for certification purposes must file the three basic forms and a transcript from the other colleges attended. No admission test is needed; however, a personal interview with the faculty is required.

SUMMER SCHOOL

Summer school admission will be approved for:

1. Regularly enrolled full and part-time students in good standing.
2. Teachers in service who file the appropriate admission form.
3. Temporary transfer students from other colleges who have approval of their Dean of Instruction to pursue courses at California State College.
4. Entering freshmen who have been officially approved by the Admission Committee.

PART-TIME COLLEGE STUDY

The California State College has been approved to offer a Part-time College Study program for the academically gifted and able Seniors (12th grade) and Juniors (11th grade). Secondary school students carrying full academic programs will be eligible under the conditions outlined:

Selection of High School Participants

The selection of the secondary student will require the recommendation of the High School Principal based upon the following characteristics:

- A. A superior achievement based upon the high school record to date.

B. A high degree of motivation and interest of the student.

C. An above average mental ability as evidenced by psychological tests administered by a certified Public School Psychologist or psychological Examiner. An I. Q. of 120 is considered minimal.

D. Parental consent.

Students enrolled in the Senior (12th grade) or Junior (11th grade) and carrying a full academic load would be eligible for recommendation.

Procedure for Applying for Admission

Special application forms for these courses will be prepared by the college and may be secured from your high school principal.

Credits

Credits earned are regular college credits and may be transferred to other colleges subject to the usual requirements of grades. The student will be subject to all regular academic regulations of this college.

Fees

A contingent fee of \$12.50 per credit hour will be collected on Registration Day. The Summer Session will require an additional activity fee of \$.50 each week of attendance. A minimum of 15 secondary school students will be necessary for each class. A limited number of college students may be admitted to each class.

ADVANCED PLACEMENT

High schools that have the proper facilities may find it possible to offer their superior students work at a level higher than the normal curriculum and equivalent to freshman course work at college. The college considers this an admissible approach to meeting the intellectual needs of the student and is prepared to grant advanced placement credit —i.e., college credit — to students who have taken such advanced work in high school, provided that they demonstrate through success in formal examinations their knowledge in the subject concerned. The most convenient method of examination is offered through the Advanced Placement Program of the College Entrance Examination Board. Students granted advanced placement thus will be afforded the opportunity to accelerate or enrich their undergraduate programs of study.

Expenses

FEES, DEPOSITS, AND REPAYMENTS

The uniform schedule of fees, deposits and repayments established for the State Colleges is subject to change when authorized by the Boards of Trustees of the State Colleges and approved by the Superintendent of Public Instruction.

ENROLLMENT FEE

This fee covers registration, keeping of the students records and the library, student welfare, health, services, (other than extra nurses and quarantine) and laboratory fees.

The Enrollment Fee must be paid in full on registration day.

ROOM AND BOARD FEES

Full-time students . . . \$272 per Trimester (Room \$128; Board \$144)

Part-time students \$17.00 per week (Room \$8; Board \$9)

This fee covers room and board and limited laundry. No reduction in the rates will be made for laundry done at home or for the absence of a student who goes home for several days at one time.

Transient lodging fee is \$1.00 per night per person.

Transient meals can be purchased from the College Catering system.

Fees for Room and Board or Board only, may be paid quarterly. The first payment of \$136.00 for Room and Board or

\$72.00 for Board only must be paid on registration day. The balance will be due on or before the end of the first eight weeks of the trimester.

ACTIVITY FEE

Full-time Students \$20.00 per Trimester

This fee, under the control of the Student Activity Association is approved by the Board of Trustees, covers membership in the Association, admission to lectures, entertainments and athletic contests, subscription to the college newspaper and certain other activities as defined by the Student Congress. Part-time students, including those taking extension courses, may secure the benefits of the activity program by paying the activity fee. Check should be made payable to the Student Activities Fund. This fee is due on the date of registration.

Checks or money orders must be written in the exact amount of your payment.

Make checks or money orders payable as follows:

Enrollment Fee, Room and Board or Board only:

To Commonwealth of Pennsylvania

Activity Fee: *To Student Activities Fund*

LATE REGISTRATION FEE

Each student who enrolls after the date officially set for registration, will be charged an additional enrollment fee of \$1.00 per day until he is in regular attendance, provided that the total amount of the late fee shall not exceed \$5.00.

FEEES FOR OUT-OF-STATE STUDENTS

Full-time students whose legal residence is outside of the Commonwealth of Pennsylvania shall be charged at the rate of \$20.00 each trimester credit hour.

If an out-of-state student is enrolled in a special curriculum, he shall pay the special curriculum fee in addition to the

regular \$20.00, per trimester credit hour as stated in the preceding paragraph.

The basic fee for Part-time or Summer Session out-of-state student, is \$20.00 per trimester credit hour with a minimum basic fee of \$60.00.

DAMAGE FEE

Students shall be responsible for damage, breakage, or loss, and the return of college property.

TRANSCRIPT FEE

The first official transcript of record is issued without cost. A fee of \$1.00 is charged for each subsequent transcript.

INFIRMARY FEE

A boarding student who is ill is entitled to three days of infirmary service without charge. After that time the charge is \$1.00 per day.

Commuting students admitted to the Infirmary are charged \$3.00 per day from the time of admission. This covers board and nursing service.

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

DEGREE FEE

A fee of \$5.00 must be paid by each candidate for a degree. No student is considered to have met the requirements for graduation until this fee has been paid. This fee is payable upon notification from the Registrar, that the student is cleared for graduation.

DELINQUENT ACCOUNTS

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

A late fee of \$1.00 per day will be charged provided that the total amount of the late fee shall not exceed \$5.00.

REFUNDS

Refunds will not be made to a student who has been dismissed temporarily or indefinitely suspended, or who has voluntarily withdrawn from the college. Repayment of any part of the advance registration deposit will not be made for any cause whatsoever.

Refund will be made for personal illness when this is certified by an attending physician or for other reasons approved by the Board of Trustees, to the amount of the housing and enrollment fees paid by the student for the part of the trimester which he does not spend in the college.

Letters requesting refunds should be addressed to the President of the college.

To withdraw from classes, Dormitory or the Dining Room, the student **MUST** first contact the proper officials of the college.

The officials to be contacted are as follows:

(A) Classes — Director of Admissions

(B) Dormitory or Dining Room — Dean of Women
or Dean of Men

Any other method of withdrawal cannot be approved and charges for Room and Board will remain intact.

PAYMENT OF BILLS

Enrollment fees, room and board and special fees must be paid at the 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 you are to pay, is preferred.

The Student Activity Fee must be paid on registration day at the Office of the Accountant for The Student Activities Fund. Upon payment, an official Activities Receipt will be given to the student. Payment by check, bank draft, Express or Post Office money order made payable to the Student Activities Fund in the exact amount of the fee you are to pay, is preferred.

Book Store business is conducted on a cash basis. Payment by check, bank draft, Express or Post Office money order made payable to the College Book Store, is preferred.

MATRICULATION CARDS

Upon completing registration, students are given matriculation cards which entitle them to admission to the classes for which they have registered. These cards must be carried at all times and presented when requested.

COST OF BOOKS

The estimated cost of textbooks is \$50.00 to \$65.00 a trimester for students in the Elementary and Secondary Curriculums. Students in the Industrial Arts curriculum may expect to spend \$90.00 for the trimester in which they take Introductory Mechanical Drawing, and \$65.00 each succeeding trimester. Students may purchase books, materials and other supplies through the College Book Store on a cash basis.

*SUMMARY OF FULL TIME TRIMESTER FEES FOR DORMITORY STUDENTS

ELEMENTARY OR SECONDARY	ATYPICAL EDUCATION
Enrollment Fee\$125.00	Enrollment Fee\$135.00
Room and Board 272.00	Room and Board 272.00
Activity Fee 20.00	Activity Fee 20.00
INDUSTRIAL ARTS	ARTS AND SCIENCES
Enrollment Fee\$143.00	Enrollment Fee\$150.00
Room and Board 272.00	Room and Board 272.00
Activity Fee 20.00	Activity Fee 20.00

FOR COMMUTING STUDENTS

ELEMENTARY OR SECONDARY	ATYPICAL EDUCATION
Enrollment Fee\$125.00	Enrollment Fee\$135.00
Activity Fee 20.00	Activity Fee 20.00
INDUSTRIAL ARTS	ARTS AND SCIENCE
Enrollment Fee\$143.00	Enrollment Fee\$150.00
Activity Fee 20.00	Activity Fee 20.00

*Fees are subject to change at any time.

**FOR COMMUTING OR TOWN
STUDENTS
DINING ROOM ONLY**

ELEMENTARY OR SECONDARY

Enrollment Fee	\$125.00
Dining Room Only ...	144.00
Activity Fee	20.00

ATYPICAL EDUCATION

Enrollment Fee	\$135.00
Dining Room Only ...	144.00
Activity Fee	20.00

INDUSTRIAL ARTS

Enrollment Fee	\$143.00
Dining Room Only ...	144.00
Activity Fee	20.00

ARTS AND SCIENCES

Enrollment Fee	\$150.00
Dining Room Only ...	144.00
Activity Fee	20.00

**SUMMARY OF PART-TIME
STUDENT CURRICULUM FEE**

Elementary and Secondary — \$12.50 per trimester credit hour.

Atypical Education — \$12.50 per trimester credit hour plus \$5.00 per session.

Industrial Arts — \$12.50 per trimester credit hour plus \$1.00 per week.

Arts and Science — \$15.00 per trimester credit hour.

The minimum charge for a Part-time student is \$37.50 plus special fees.

Financial Aid and Employment

STUDENT LOAN AND FINANCIAL ASSISTANCE

The low cost to the student of an education at California State College is made possible only because the Commonwealth of Pennsylvania supports the education of its teachers. The Commonwealth in fact subsidizes every student because the actual total cost per student for a quality educational program ranks with the average for similar colleges. The student pays only about one-third the cost.

While students are encouraged to have sufficient resources upon admission to complete the first year there are limited funds available to help those able persons who find the cost too great. The college participates with National Defense Student Loan program. In addition many persons vitally interested in teacher education have contributed to the college a Loan Fund program which makes possible either short term or long term loans to needy students.

All loans are made to cover educational expenses only.

NATIONAL DEFENSE STUDENT LOAN PROGRAM

The National Defense Student Loan Program was authorized by the National Defense Education Act of 1958. This program makes loans available to students under certain conditions, with specific scholarship provisions for student borrowers who later enter public elementary and secondary teaching.

The college has the major responsibility for administering the provisions of the Act. Applications to participate in the program must be submitted to the President's Office. Eligibility to participate in the program is based on the following qualifications:

1. A student must be in full time attendance at the college (full time attendance is construed as a minimum of 12 trimester hours of credit).

2. Academic proficiency of a 3.0 or B quality point average or superior elective in one of the areas of mathematics, science or modern foreign language.

3. Needy students as evidenced by the certification by responsible persons.

4. Information on this loan may be obtained thru the Office of the College President. Inquiries should be made well in advance of the registration date.

STATE SCHOLARSHIPS

Holders of State Scholarships may attend California State College and use the Scholarship award toward meeting their expenses. The Senatorial Scholarships do not apply to state colleges.

STUDENT LOAN FUNDS

A small loan fund was established by the Class of 1927 for the purpose of giving financial assistance to worthy students. From time to time various groups of individuals have contributed money until the fund amounts at present to approximately \$20,000.

Donors of amounts of \$1,000 or more are as follows:

Lee Smith — Estate

Miss Clara Smith

P. W. Morgan — Estate

Donors of \$100 or more are as follows:

Class of 1926

Class of 1927

Fayette Co. S. S. — 1927

Class of 1928

Class of 1929

Monocal — 1930

Class of 1932

Monocal — 1934

Class of 1934

Class of 1935

Class of 1936

Class of 1938

J. B. Smith Alumni Chapter

Mary Graham Noss Fund

California Coterie Club

Class of 1941

Class of 1944

Dauna Lyn Bowlen

George Kunkleman

Alumni Association — 1960

Ira Laughlin Teggart — Estate

Naomi E. Birch — Estate

P. J. Mollenauer

H. R. Humphries

These funds are held in trust by a Board of Directors made up of two alumni and three faculty members. The following officers are: Mr. William Grimes, Chairman; Mrs. Irene Stevens Edwards, Dr. Michael Duda, Mr. Paul N. Walker, Dr. George Roadman, and Mr. Aaron J. Hoover, secretary-treasurer. All contributions should be sent to one of these persons. Arrangements for a loan should be made with the secretary-treasurer.

The committee, in granting loans, takes into consideration scholarship, personal worthiness, and professional attitude.

IV. Programs of Study

A. BACHELOR OF SCIENCE IN EDUCATION

1. ATYPICAL EDUCATION
 - a. Mentally Retarded
 - b. Speech and Hearing
2. ELEMENTARY EDUCATION
3. INDUSTRIAL ARTS EDUCATION
4. SECONDARY EDUCATION
5. PUBLIC SCHOOL NURSING
6. DENTAL HYGIENIST

B. BACHELOR OF ARTS

1. HUMANITIES
2. SOCIAL SCIENCE
3. NATURAL SCIENCE

C. PROGRAMS FOR TEACHERS' CERTIFICATION

1. HIGHWAY SAFETY
2. ELEMENTARY TEACHER LIBRARIAN

A. Bachelor of Science In Education

California offers men and women preparing for the profession of teaching the following curricula leading to the degree of Bachelor of Science in Education:

Atypical Education

A four-year course* which trains teachers to work with the mentally retarded or with the speech and hearing handicapped.

Elementary Education

A four-year course* which offers the opportunity for teaching in the elementary grades.

Industrial Arts

A four-year course* including wood, metal, graphic arts, machine, ceramics, plastics, electricity and crafts, designed to prepare teachers who are qualified to teach Industrial Arts in the Junior and Senior High School.

Secondary Education

A four-year course* which requires the election of a single area of specialization. California offers specialization in those academic subjects regularly taught in the Junior and Senior High School.

Public School Nurse and Dental Hygienist

These two-year programs designed to supplement previous training in the respective fields allow the student to earn the credits necessary to complete all the requirements for the baccalaureate degree, and make these persons eligible for full certification to work in the public schools.

* Approximately 65% of all California students take advantage of a complete summer school program to accelerate. By careful planning and with the assistance of the curriculum directors, students may complete the four-year program in three or three and one-half years.

Certification

All graduates from the undergraduate Teacher Education curricula meet the requirements for the issuance of the College Provisional Certificate. This certificate enables its holder to teach the subjects listed thereon for three years in the Commonwealth of Pennsylvania. Requirements for making provisional certificates permanent have been established by the State Council of Education. Under the Reciprocity Compact, Elementary certificates valid for Pennsylvania are also valid in those states which are signatories to the Compact.

THE GENERAL CURRICULUM PATTERN OF THE TEACHER EDUCATION PROGRAM

The several Teacher Education curriculums of the college have been developed jointly by the Curriculum Committee and the Faculty. The curricula have received the approval of the Administrative Council, the Faculty, the Board of State College Presidents, and the Superintendent of Public Instruction. The approved curriculum pattern includes the following:

A. GENERAL EDUCATION

(Courses required of all students in all curriculums)

<i>Humanities</i>	19 credits
Language and Literature	
Communication	
Developmental Reading	
Literature	
Arts	
Introduction to Art	
Introduction to Music	
Philosophy	
<i>Social Studies</i>	16 credits
World Culture	
Survey of History of United States and Pennsylvania	
American Government	
<i>Science</i>	16 credits
Fundamentals of Mathematics	
Man and His Biological World	
Man and His Physical World	
World Geography	
<i>Human Development and Growth</i>	11 credits
General Psychology	
Child Development (Elementary and Atypical)	
OR	
Psychology of Adolescence (Secondary and Industrial Arts)	
Health	
Physical Education	

B. PROFESSIONAL EDUCATION

These courses are specifically designed to prepare for the teaching profession. The culminating experience is the student teaching which extends for the entire trimester under the guidance of master teachers. Specific professional courses will differ with the different curricula.

C. SPECIALIZATION

The student will elect one of the curricula offered at the College in which he will specialize in his field of particular interest. General Education courses are not counted in the area of specialization toward graduation requirements.

Atypical Curriculum

- a. Teaching the Mentally Retarded and in the Elementary Grades
- b. Teaching Speech and Hearing

Elementary Curriculum

Teaching in the Elementary school including selections of an academic major from the following:

1. *Single Subject*
 - English
 - Geography
 - Mathematics
 - Modern Language
 - French
 - German
 - Spanish
2. *Broad Fields*
 - English-Speech
 - Science
 - Social Studies
3. *Area of Interest in Lieu of an Academic Major*
 - Industrial Arts for Elementary Teachers
 - Language Arts
 - Art
 - Music

Courses are offered in Library to eligible elementary teachers to extend their Elementary Certificates to Teacher-Librarian.

Industrial Arts Curriculum

Teaching Industrial Arts in the Junior and/or Senior high school.

Secondary Curriculum

Teaching the following academic subjects in the Junior and/or Senior high school.

AREAS OF SPECIALIZATION

Comprehensive Specialization

English-Speech
History and Government
Modern Language
Comprehensive Science
Field of Science
Physics and Math
Physical Science
Social Studies
Speech-English

Subject Specialization

Biological Science
Chemistry
Earth Science
English
French
Geography
German

History
Mathematics
Physics
Russian
Spanish
Speech

D. FREE ELECTIVES

The students may elect as free electives any course offered at the College for which he satisfies the prerequisites. The number of free elective hours will vary with the curriculum and area of specialization.

THE ATYPICAL CURRICULUM

A — TEACHING THE MENTALLY RETARDED AND ELEMENTARY GRADES		
General Education	62	credits
Professional Education	22	credits
Professional Orientation	3	
Audio-Visual Education	2	
Educational Psychology	3	
Student Teaching (Elementary and Atypical)	12	
Professional Practicum and School Law	2	
Specialization	45	credits
Basic Courses for Elementary Teaching	21	credits
Music for Elementary Grades	2	
Health and Physical Education for Elementary Grades	2	
Teaching of Reading	3	
Arithmetic Content and Method	3	
Teaching the Language Arts	3	
Geography of United States and Pennsylvania	3	
Teaching the Content Subjects	3	
Art for Elementary Grades	2	
Teaching Retarded Children	24	credits
Curriculum Planning, Material and Equipment for Retarded Children	3	
Psychology of Exceptional Children	3	
Mental Hygiene	3	
Arts and Crafts for Atypical Children	3	
Advanced Arts and Crafts	3	
Special Class Methods	3	
Diagnostic Testing and Remedial Teaching OR		
Diagnostic and Remedial Reading	3	
Guidance with Emphasis on Interviewing and Parent Education	3	
Minimum Credits Required for Graduation	129	credits

SUGGESTED PROGRAM OF STUDIES FOR TEACHING OF THE MENTALLY RETARDED AND ELEMENTARY

For administrative reasons the sequence of courses is subject to change.

FIRST TRIMESTER — 16 Crs.		SECOND TRIMESTER — 16 Crs.	
Communication I or	5	Communication II or	5
English I &	(3) —	English II &	(3) —
Speech I	(2)	Speech II	(2)
Introduction to Art	2	Man and His Physical World	5
Man and His Biological World	5	Introduction to Music	2
Developmental Reading	2	Fundamentals of Math.	3
Health	2	Physical Education I	1
Freshman Orientation	0		
THIRD TRIMESTER — 17 Crs.		FOURTH TRIMESTER — 16 Crs.	
World Literature I	2	World Literature II	2
World Culture I	3	World Culture II	3
World Geography I	3	Music for Elementary Grades	2
Professional Orientation	3	Geography of United States and Pennsylvania	3
Physical Education II	1	Audio-Visual Education	2
General Psychology	3	Child Development	3
Health and Physical Education for Elementary Grades	2	Physical Ed. III	1
FIFTH TRIMESTER — 17 Crs.		SIXTH TRIMESTER — 18 Crs.	
Arts & Crafts	3	Special Class Methods	3
Psychology of the Exceptional Child	3	History of US & Pa. Survey	3
Art for Elementary Grades	2	Arithmetic Content and Method	3
Teaching of Language Arts	3	Advanced Arts and Crafts	3
Diagnostic Testing & Remedial Teaching or		Teaching of Reading	3
Diag. & Rem. Reading	3	Guidance with Emphasis on Interviewing	3
Educational Psychology	3		
SEVENTH TRIMESTER — 15 Crs.		EIGHTH TRIMESTER — 14 Crs.	
American Government	3	Student Teaching	12
Curriculum Planning	3	Professional Practicum and School Law	2
Philosophy	3		
Teaching the Content Subject	3		
Mental Hygiene	3		

THE ATYPICAL CURRICULUM

B — TEACHER OF SPEECH AND HEARING

General Education	62	
Professional Education	28	credits
Professional Orientation	3	
Audio-Visual Education	2	
Educational Psychology	3	
Psychology of Exceptional Children	3	
Student Teaching	12	
Professional Practicum and School Law	2	
Methods and Techniques in Speech Correction	3	
Specialization Courses	38	credits
I. Courses Basic to all Atypical Education	3	credits
Mental Hygiene	3	
II. Specialization Courses in Speech and/or Hearing Pathology	6	credits
A. Basic Areas	3	
Anatomy and Physiology of the Ear and Vocal Mechanism	3	
Phonetics	3	
B. Speech and/or Hearing Pathology	20	credits
Speech Pathology	3	
Hearing Problems	3	
Auditory Training and Speech Reading	3	
Language and Speech Development	3	
Speech Problems	3	
Practice in Measurement of Hearing	2	
Teaching of Reading	3	
III. Clinical Practice (at least 200 clock hours)	6	credits
Elementary Speech Clinic	3	
Advanced Speech Clinic	3	
IV. Elective Courses	3	credits
Basic Public Speaking	3	
Psychology of Speech and Hearing	3	
Clinical Practice in Auditory Training and Speech Reading	3	
Stuttering	3	
Advanced Phonetics	3	
Voice and Diction	3	
Minimum Credits Required for Graduation	128	credits

SUGGESTED PROGRAM OF STUDIES FOR TEACHING SPEECH AND HEARING

For administrative reasons the sequence of courses is subject to change.

<p>FIRST TRIMESTER — 16 Crs.</p> <p>Phonetics</p> <p>Communications I</p> <p>World Geography</p> <p>Man and His Biological World</p> <p>Freshman Orientation</p> <p>THIRD TRIMESTER — 17 Crs.</p> <p>General Psychology</p> <p>Fundamentals of Mathematics</p> <p>Hearing Problems</p> <p>Language and Speech Development ..</p> <p>History of United States and Pennsylvania Survey</p> <p>Introduction to Art</p> <p>FIFTH TRIMESTER — 17 Crs.</p> <p>Methods and Techniques in Speech Correction</p> <p>World Culture II</p> <p>World Literature II</p> <p>Child Development</p> <p>Mental Hygiene</p> <p>Practice in Measurement and Adjustment of Hearing Prosthesis ..</p> <p>Physical Education III</p> <p>SEVENTH TRIMESTER — 15 Crs.</p> <p>Psychology of the Exceptional Child..</p> <p>Speech Problems</p> <p>American Government</p> <p>Educational Psychology</p> <p>Philosophy</p> <p>*Elective Credits</p> <p>†If the student does not meet the required minimum standards.</p>	<p>SECOND TRIMESTER — 16 Crs.</p> <p>Speech Pathology</p> <p>Communications II</p> <p>Man and His Physical World</p> <p>Health</p> <p>Physical Education I</p> <p>FOURTH TRIMESTER — 15 Crs.</p> <p>Auditory Training and Speech Reading</p> <p>Elementary Clinical Practice</p> <p>World Culture I</p> <p>World Literature I</p> <p>*Stuttering</p> <p>Physical Education II</p> <p>SIXTH TRIMESTER — 16 Crs.</p> <p>Advanced Clinical Practice</p> <p>Teaching of Reading</p> <p>Professional Orientation</p> <p>Anatomy and Physiology of the Ear and Vocal Mechanisms</p> <p>Introduction to Music</p> <p>†Developmental Reading</p> <p>EIGHTH TRIMESTER — 14 Crs.</p> <p>Student Teaching</p> <p>Professional Practicum and School Law</p>
	<p>Minimum credits required for graduation</p>

THE ELEMENTARY CURRICULUM

I. General Education	60	credits
II. Professional Education	22	credits
Student Teaching	12	
Professional Practicum and School Law	2	
Educational Psychology	3	
Professional Orientation	3	
Audio-Visual Education	2	
III. Elementary Specialization	30	credits
A. Content subjects required in addition to General Education	12	credits
Geography of U.S. and Pa.	3	
Art for Elementary Grades	2	
Music for Elementary Grades	2	
Laboratory Science for Teachers	3	
Children's Literature I	2	
These courses may be counted toward the major in the appropriate field.		
B. Methods courses required in Elementary Education	18	credits
These courses are methods and do not count toward the major specialization but may be counted in Areas of Interest.		
Teaching of Reading	3	
Arithmetic Content and Method	3	
Teaching of Language Arts	3	
Teaching of Content Subjects	3	
Teaching of Art in Elementary Grades	2	
Teaching of Music in Elementary Grades	2	
Health and Physical Education for the Elementary Grades	2	
IV. Academic Majors in Elementary Curriculum	18	credits
(Each student will elect a major area at first registration)		
A. <i>Single Subject</i>		
1. English		
2. Geography		
3. Mathematics		
4. Modern Language		
a. French		
b. German		
c. Spanish		
B. <i>Broad Fields</i>		
1. English-Speech		
2. Science		
3. Social Studies		
C. <i>Area of Interest in Lieu of an Academic Major</i>		
1. Industrial Arts for Elementary Teachers		
2. Language Arts		
3. Art		
4. Music		
Total Credits required for graduation from Elementary Curriculum	130	credits

SUGGESTED PROGRAM FOR THE ELEMENTARY CURRICULUM

For administrative reasons the sequence of courses is subject to change.

FIRST TRIMESTER — 16 Crs. Communication I	5	SECOND TRIMESTER — 17 Crs. Communication II	5
English I &	(3)	English II &	(3)
Speech I	(2)	Speech II	(2)
Introduction to Art	2	Man and His Physical World	5
Man and His Biological World	2	Professional Orientation	3
Introduction to Music	2	Physical Education I	1
Health	2	First Course in Major	—
Freshman Orientation	0		
THIRD TRIMESTER — 17 Crs.		FOURTH TRIMESTER — 17 Crs.	
World Culture I	3	World Culture II	3
World Literature I	2	World Literature II	2
World Geography	3	Music for Elementary Grades	2
*Fundamentals of Math	3	Geography of United States and Pennsylvania	3
General Psychology	3	Educational Psychology	3
Second Course in Major	—	Physical Education II	1
		Third Course in Major	—

FIFTH TRIMESTER — 17 Crs.

**Hist. of US and Pa. Survey	3
Art for Elementary Grades	2
Teaching of Language Arts	3
Teaching of Reading	3
Teaching Music in Elem. Grades	2
Physical Education III	1
Fourth Course in Major	—

SIXTH TRIMESTER — 16 Crs.

Arithmetic Content and Method	3
Lab. Science for Elem. Grades	3
Child Development	3
Teaching Art in Elem. Grades	2
Audio-Visual Education	2
Fifth Course in Major	—

SEVENTH TRIMESTER — 16 Crs.

American Government	3
Philosophy	3
Teaching the Content Subject	3
Children's Literature	2
Health and Physical Education for Elementary Grades	2
Sixth Course in Major	—

EIGHTH TRIMESTER — 14 Crs.

Student Teaching	12
Professional Practicum and School Law	2

*Not to be taken by students with a mathematics major.

**Students with a social studies major take History of United States and Pennsylvania I instead of History of United States and Pennsylvania Survey.

SUMMARY OF REQUIREMENTS FOR A MAJOR IN ELEMENTARY EDUCATION

ENGLISH

The student will elect 18 credits from the courses listed under English in the college catalog.

GEOGRAPHY

<i>Required Courses</i>	
Economic Geography	3 credits
<i>Elective Courses</i>	
I. One Regional Course from:	
A. Geography of Europe	3 credits
B. Geography of Asia	3 credits
C. Geography of Africa-Australia	3 credits
D. Geography of U.S.S.R.	3 credits
E. Geography of Pennsylvania	3 credits
F. Geography of Latin America	3 credits
II. One course in the Physical aspects of Geography	
A. Geology	3 credits
B. Meteorology	3 credits
C. Climatology	3 credits
D. Physical Geography	3 credits
E. Oceanography	3 credits
F. Astronomy	3 credits
III. One course in the Cultural aspects of Geography	
A. Conservation of Natural Resources	3 credits
B. Commercial and Industrial Geography	3 credits
C. World Problems (Political Geography)	3 credits
D. Geographical Influences in American History	3 credits
E. Summer Field Trips	3 credits
IV. One course in Geographic Techniques (this is NOT methods of teaching)	
A. Cartography	3 credits
B. Seminar in Geography	3 credits
C. Field Methods in Geography	3 credits
Elective Geography Course	3 credits

MATHEMATICS

<i>Required</i>		<i>Credit hours</i>
College Algebra	3	
College Trigonometry	3	
*Analytic Geometry	3	
Differential Calculus	3	
Integral Calculus	3	
Geometry I	3	
Math Insights will be taken in lieu of Fundamentals of Mathematics and counted as general education.		

*If College Board scores indicate outstanding ability (625) the student may elect to start with analytic geometry and complete credits in mathematics electives beyond those courses listed above.

MODERN LANGUAGE

The student will elect to specialize in one language selected from French, German or Spanish.

Total credits required for Elementary Specialization 18 credits

(Students without an adequate background of two-years of Languages in High School will be required to complete the elementary courses which will not be counted in the area of specialization.)

FRENCH

<i>Required Courses</i>	Credits	hours
Intermediate French I	3	
Intermediate French II	3	
French Culture and Civilization I	3	
French Culture and Civilization II	3	

(Students in French will be expected to pass a proficiency examination in the French Language since all further courses will be offered in French.)

French Literature I	3
French Literature II	3

GERMAN

<i>Required Courses</i>	Credits	hours
Intermediate German I	3	
Intermediate German II	3	
German Culture and Civilization I	3	

Students in German will be expected to pass a proficiency examination in the German Language since all further courses will be offered only in German.

German Culture and Civilization II	3
German Literature I	3
German Literature II	3

SPANISH

<i>Required Courses</i>	Credits	hours
Intermediate Spanish	3	
Advanced Spanish I	3	
Advanced Spanish II	3	

Students in Spanish will be expected to pass a proficiency test in Spanish Language before continuing since all further courses are offered in Spanish.

History of Spain and Hispanic America	3
Culture and Civilization of Spain and Hispanic America	3
Literature of Spain	3

COMPREHENSIVE FIELDS

ENGLISH-SPEECH

I. Speech Courses	Credits	hours
Phonetics	3	
Oral Interpretation	3	
Voice and Diction (Upon proper advisement any speech course may be taken)	3	
II. English Courses		
Philology and Grammar	3	
Advanced Composition OR		
Creative Writing	3	
An elective course — either field	3	

SCIENCE FOR ELEMENTARY TEACHERS

	Credits	hours
Meteorology	3	
Physical Geology	3	
Descriptive Astronomy	3	
Field Botany	3	
Field Zoology	3	
*Laboratory Science for Elementary Teachers	3	

Students electing this area should schedule Man and His Biological World and Man and His Physical World during first and second semesters.

*Because Laboratory Science for Elementary Grades is included in required content subjects and in the science major, the student with a major in science will have three (3) free elective credits.

SOCIAL STUDIES

Required Courses	9	credits
History of United States and Pennsylvania I will replace Survey of United States and Pennsylvania History and will be counted in general education.		
History of United States and Pennsylvania II	3	
Principles of Economics	3	
Principles of Sociology	3	
Elective Courses	9	credits
Group I — Elect one (1) course from the following:		
United Nations	3	
State and Local Government	3	
Comparative Government	3	
International Relations	3	
World Politics	3	
Group II — Elect one (1) course from the following:		
History of Far East	3	
History of Near East	3	
History of Latin America	3	
Group III — Elect three credits from the following:		
History	3	
Economics	3	
Political Science	3	
Sociology	3	
	18	credits

AREAS OF INTEREST

All areas require 18 credits to complete

INDUSTRIAL ARTS FOR ELEMENTARY TEACHERS

Required:	Credits	hours
Blackboard Sketching	2	
& Blueprint Reading	2	
Creative Design	2	
The Use of Common Hand Tools	4	
Elective:		
Ceramics	4	
Leather Work	4	
Plastics	4	
Graphic Arts for Elementary Teachers	4	
Photography	4	
The Airbrush and Model Construction	2	
All elementary industrial arts courses are to meet 1½ clock hours per credit. This does not apply to the selection of regular industrial arts courses.		

LANGUAGE ARTS

Required	15	credits
Advanced Language Arts	3	
Advanced Teaching of Reading	3	
Philology and Grammar	3	
Children's Literature II	3	
Creative Writing	3	
Electives		
Teaching of Speech in the Elementary School	3	
General Semantics	3	
Oral Interpretation	3	
Total credits in field	18	

ART FOR ELEMENTARY MAJORS

Art for Elementary Grades	2
Teaching of Art in the Elementary Grades	2
Crafts for Elementary Grades	3
Art Education Workshop	3
Drawing and Painting	3
Creative Art Activities	3
Research in Art Education	2
	18

MUSIC FOR ELEMENTARY MAJORS

Music for the Elementary Grades	2
Basic Theory I	3
Basic Theory II	3
(These courses include Fundamentals of Harmony, Solfeggio and Ear Training)	
Fundamentals of Conducting	2
Classroom Piano	2
Music in the Integrated Program	3
Music Literature	3
(Vocal and instrumental inclusive)	
Total	18

THE INDUSTRIAL ARTS CURRICULUM

General Education	60	credits
Professional Education	25	credits
Student Teaching	12	
Professional Practicum and School Law	2	
Educational Psychology	3	
Professional Orientation	3	
Audio-Visual Education	2	
Principles and Practices of Industrials Arts	3	
Specialization	46	credits
Shop		
Fundamentals of Wood Shop	4	
Fundamentals of Graphic Arts	4	
Fundamentals of Sheet Metal	4	
Fundamentals of Machine Shop	4	
Fundamentals of Electricity	4	
Advanced Wood Shop	4	
Shop Electives	8	
	32	
Drawing and Design		
Introductory Mechanical Drawing	2	
Graphic Arts Design	2	
Sheet Metal Design	2	
Machine Shop Design	2	
Electric Theory and Design	2	
Drawing Elective	2	
Elective in Industrial Arts	2	
	14	
Minimum credits required for graduation	131	credits

SUGGESTED PROGRAM FOR THE INDUSTRIAL ARTS CURRICULUM

For administrative reasons the sequence of courses is subject to change.

FIRST TRIMESTER — 17 Crs.		SECOND TRIMESTER — 17 Crs.	
Fundamentals of Woodworking	4	Fundamentals of Graphic Arts	4
Introductory Mechanical Drawing	2	Graphic Arts Design	2
Communication I	5	Communication II	5
Developmental Reading	2	Physical Science (Physics I)	4
Mathematics	3	Health	2
Physical Education I	1		
Freshman Orientation	0		
THIRD TRIMESTER — 17 Crs.		FOURTH TRIMESTER — 16 Crs.	
Fundamentals of Sheetmetal	4	Fundamentals of Machine Shop	4
Sheetmetal Drafting	2	Machine Drawing and Design	2
World Culture I	3	World Culture II	3
World Literature I	2	World Literature II	2
Man and His Biological World	5	Introduction to Music	2
Physical Education II	1	General Psychology	3
FIFTH TRIMESTER — 17 Crs.		SIXTH TRIMESTER — 17 Crs.	
Fundamentals of Electricity	4	Advanced Woodworking	4
Electric Drafting and Theory	2	World Geography	3
Professional Orientation	3	History of United States and Pennsylvania	3
Educational Psychology	3	Principles and Practices of Industrial Arts	3
Introduction to Philosophy	3	Audio-Visual Education	3
Art (Industrial Arts Design)	2	Drawing and Design (elective)	2
SEVENTH TRIMESTER — 16 Crs.		EIGHTH TRIMESTER — 14 Crs.	
Shop (elective)	4	Student Teaching	12
Shop (elective)	4	Professional Practicum and School Law	2
Curriculum Making	2		
American Government	3		
Psychology of Adolescence	3		

THE SECONDARY CURRICULUM

General Education	62	credits
Professional Education	29	credits
Educational Psychology	3	
Professional Orientation	3	
Audio-Visual Education	2	
Problems of Secondary Education	3	
Teaching of Field of Specialization	4	
Professional Practicum and School Law	2	
Student Teaching	12	
Comprehensive Specialization		
English - Speech	39	
History and Government	36	
Modern Language	36	
Comprehensive Science	44	
Field of Science	38	
Physics and Mathematics	36	
Physical Science	36	
Social Studies	36	
Speech - English	39	
Subject Specialization		
Biology	36	
Chemistry	38	
Earth Science	26	
English	36	
French	24	
Geography	24	
German	24	
History	30	
Mathematics	30	
Physics	38	
Russian	24	
Spanish	24	
Speech	36	

SUGGESTED PROGRAM OF COURSES FOR THE SECONDARY CURRICULUM

For administrative reasons the sequence of courses is subject to change.

<p>FIRST TRIMESTER — 17 Crs.</p> <p> Communication I</p>	5	<p>SECOND TRIMESTER — 17 Crs.</p> <p> Communication II</p>	5
Man and His Biological World	5	Man and His Physical World	5
Developmental Reading	2	Physical Education I	1
Health	2	Professional Orientation	3
Elective	3	Elective	3
Freshman Orientation	0		
<p>THIRD TRIMESTER — 17 Crs.</p> <p> World Culture I</p>	3	<p>FOURTH TRIMESTER — 15 Crs.</p> <p> World Culture II</p>	3
World Literature I	2	World Literature II	2
Introduction to Art	2	General Psychology	3
Fundamentals of Mathematics	3	Physical Education III	1
Physical Education II	1	Elective	6
Elective	6		
<p>FIFTH TRIMESTER — 18 Crs.</p> <p> Survey of United States and Pennsylvania History</p>	3	<p>SIXTH TRIMESTER — 16 Crs.</p> <p> Introduction to Music</p>	2
Educational Psychology	3	Problems of Secondary Education	3
World Geography	3	Psychology of Adolescence	3
Elective	9	Audio-Visual Education	2
		Elective	6
<p>SEVENTH TRIMESTER — 18 Crs.</p> <p> American Government</p>	3	<p>EIGHTH TRIMESTER — 14 Crs.</p> <p> Student Teaching</p>	12
Introduction to Philosophy	3	Professional Practicum and School Law	2
Teaching of Major Subjects	3		
Elective	9		

CURRICULUM REQUIREMENTS FOR AREAS OF COMPREHENSIVE SPECIALIZATION

ENGLISH-SPEECH
HISTORY AND GOVERNMENT
MODERN LANGUAGE
COMPREHENSIVE SCIENCE
FIELD OF SCIENCE

PHYSICS AND MATH
PHYSICAL SCIENCE
SOCIAL STUDIES
SPEECH-ENGLISH

COMPREHENSIVE ENGLISH-SPEECH (Emphasis on English)

Total credits required for field	39	credits
English credits	24	credits
American Literature	3	
English Literature	3	
English Philology and Grammar	3	
Advanced Composition or Creative Writing	3	
Shakespeare	3	
Electives in English	9	
Speech credits	15	credits
Phonetics	3	
Oral Interpretation	3	
Basic Public Speaking	3	
Technical Play Production	3	
Debate and Parliamentary Procedure	3	

HISTORY AND GOVERNMENT

Required Courses	36	credits
History		
History of Europe from 1815 to Present	3	
Contemporary American History	3	
History of United States and Pennsylvania	3	
Twentieth Century World History	3	
Diplomatic History of United States	3	
Constitutional History of United States	3	
Government		
Comparative Government	3	
State and Local Government	3	
American Political Parties	3	
The United Nations: Org. and Function	3	
International Relations from 1919 to Present	3	
World Politics	3	

MODERN LANGUAGE

Students electing any one of the modern languages will be scheduled for the Intermediate courses (103, 104) only if they have completed two years of language study in high school or can otherwise demonstrate competency. Students without a secondary background in modern language will schedule beginning language for two trimesters (101, 102), but these will not count in the area of specialization.

Students electing Modern Language will select two languages — 24 credits required in the first language and 12 credits required in the second language.

COMPREHENSIVE SCIENCE

Total credits required for field	41 +	credits
Required Courses	41 +	credits
Botany I	4	
Botany II	4	
Zoology I	4	
Zoology II	4	
General Chemistry I	4	
General Chemistry II	4	
Physics I	4	
Physics II	4	
Astronomy (Descriptive)	3	
Geology (Physical)	3	
Mathematics	3	
and Electives in Chemistry and Physics to satisfy the Comprehensive Science Certification requirement.		

Biotic principles and physical principles will replace the comparable general education courses.

FIELD OF SCIENCE

Total credits required for field	38	credits
Required Courses	38	credits
Botany I	4	
Botany II	4	
Zoology I	4	
Zoology II	4	
General Chemistry I	4	
General Chemistry II	4	
Physics I	4	
Physics II	4	
Astronomy (Descriptive)	3	
Geology (Physical)	3	

Biotic principles and physical principles will replace the comparable general education courses.

PHYSICS AND MATHEMATICS

Total credits required for field	36	credits
Required Courses	26	credits
Physics		
Physics I	4	
Physics II	4	
Mathematics		
College Algebra	3	
College Trigonometry	3	
Analytical Geometry	3	
Calculus I	3	
Calculus II	3	
Geometry I	3	

Elective Courses	10	credits
Astronomy	3	
Modern Physics	4	
Mechanics	4	
Electricity and Magnetism	4	
Heat and Sound	4	
Optics	4	
Physical Measurements I	2	
Physical Measurements II	2	
Special Problems in Physics I	2	
Special Problems in Physics II	2	
Advanced Mechanics	4	
Electronics	4	
Advanced Electricity and Mechanics	4	
Physical principles and Math Insights replace the comparable general education courses.		

PHYSICAL SCIENCE

Total credits required for field	36	credits
Required Courses	22	credits
Inorganic Chemistry I	4	
Inorganic Chemistry II	4	
Physics I	4	
Physics II	4	
Astronomy (Descriptive)	3	
Meteorology	3	
Elective Courses	14	credits

GROUP I — (not less than 6 credits from this group)

Organic Chemistry I	4
Organic Chemistry II	4
Analytical Chemistry I	3
Analytical Chemistry II	3

GROUP II — (not less than 8 credits from this group)

Modern Physics	4
Mechanics	4
Magnetism and Electricity	4
Heat and Sound	4
Optics	4
Physical Measurements I	2
Physical Measurements II	2
Special Problems in Physics I	2
Special Problems in Physics II	2
Physical principles will replace Man and His Physical World.	

SOCIAL STUDIES

Total required for field 36 credits

REQUIRED COURSES are marked with ‡

GROUP I — (12 credits to be selected from this group)

‡History of Europe to 1815	3
‡History of Europe since 1815	3
History of the Ancient World	3
History of Medieval Europe	3
Renaissance and Reformation	3
Contemporary European History	3
History of England	3
History of Latin America	3
History of the Far East	3
History of the Middle East	3
History of Russia	3
Twentieth Century World History	3

GROUP II — (6 credits to be selected from this group)

‡History of the United States and Pennsylvania I — Taken in lieu of Survey of U. S. & Pa. and counted as General Education	3
‡History of United States and Pennsylvania II	3
Contemporary United States History	3
Diplomatic United States History	3
American Constitutional History	3
History of Pennsylvania	3
Social History of United States	3

GROUP III — (6 credits to be selected from this group)

State and local government	3
Comparative government	3
International Relations	3
United Nations	3
Political Parties	3
World Politics	3

GROUP IV — (6 credits to be selected from this group)

‡Principles of Sociology	3
Contemporary Social Problems	3
The Family	3
Anthropology	3

GROUP V — (6 credits to be selected from this group)

‡Principles of Economics I	3
Principles of Economics II	3
Money and Banking	3
Industrial Relations	3
Public Finance	3
History of Economic Thought	3

‡Required courses in the respective groups.

COMPREHENSIVE SPEECH-ENGLISH (Emphasis on Speech)

Required Courses 39 credits

Speech Courses 24 credits

Phonetics OR
Voice and Diction 3
(The completion of either of these courses is considered essential before scheduling further courses.)

Fundamentals of Speech	3
Forms of Public Address	3
Argumentation and Debate	3
Stage Direction OR Technical play production	3
Oral Interpretation	3
Electives in Speech	6

English Courses 15 credits

American Literature	3
English Literature	3
Shakespeare	3
English Philology and Grammar	3
Advanced Composition OR Creative Writing	3

CURRICULUM REQUIREMENTS FOR AREAS OF SINGLE SUBJECT SPECIALIZATION

BIOLOGICAL SCIENCE
CHEMISTRY
EARTH SCIENCE
ENGLISH
FRENCH
GEOGRAPHY
GERMAN

HISTORY
MATHEMATICS
PHYSICS
SPANISH
RUSSIAN
SPEECH

BIOLOGICAL SCIENCE		
Total credits required for field	36	credits
Required Courses	24	credits
Botany I	4	
Botany II	4	
Zoology I	4	
Zoology II	4	
General Chemistry I	4	
General Chemistry II	4	
Elective Courses	12	credits
(At least one course must be selected from each group)		
GROUP I — Laboratory Courses		
Vertebrate Anatomy	3	
Physiology	3	
Genetics	3	
Microbiology	3	
Organic Evolution	3	
GROUP II — Field Courses		
Ecology	3	
Ornithology	3	
Entomology	3	
Field Zoology	3	
Field Botany	3	
Conservation of Biological Resources	3	
Biotic principles will replace Man and His Biological World.		
CHEMISTRY		
Total credits required for field	38	credits
Required Courses	25	credits
General Chemistry I	4	
General Chemistry II	4	
Analytical Chemistry I	4	
Analytical Chemistry II	4	
Chemistry Seminar	1	
Physics I	4	
Physics II	4	
Physical Principles	4	
Elective Courses	13	credits
Organic Chemistry I	4	
Organic Chemistry II	4	
Physical Chemistry I	4	
Physical Chemistry II	4	
Laboratory Techniques in Chemistry	3	
Industrial Chemistry	3	
Colloid Chemistry	3	
Organic Preparations	3	
Agricultural Chemistry	3	
Biological Chemistry I	3	
Biological Chemistry II	3	
Radiochemistry	3	
Nuclear Chemistry	3	
Literature of Chemistry	1	
Special Topics in Chemistry	Variable	
Chemistry for High School Teachers	3	
Instrumental Analysis I	3	
Instrumental Analysis II	3	
Food Analysis	3	
Physical principles will replace Man and His Physical World		

EARTH SCIENCE

Total credits required for field	26	credits
Required Courses	23	credits
Astronomy (Descriptive)	3	
Physical Geology	4	
Historical Geology	4	
Meteorology	3	
Physical Geography	3	
Oceanography	3	
Seminar in Earth Sciences	3	
Elective Courses	3	credits
At least 3 credits from the following:		
Climatology	3	
Physiography	3	
Conservation of Resources	3	
Field Methods	3	
Special Problems in Earth Science	1, 2, or 3	
Honors course	3, 6 or 9	

The general education courses (Man and His Biological World, Man and His Physical World, and World Geography) would be taken in the freshman year as part of the earth science program and as prerequisite to all other earth science courses with the exception of Astronomy which could also be taken in the freshman year.

Teaching of Geography and Earth Sciences in Secondary Schools is required as part of the work in professional education.

By careful selection of electives the Earth Science Major may have a "Field" in Geography also.

ENGLISH

Total credits required for field	36	credits
Required	24	credits
American Literature I and II	6	
English Literature I and II	6	
Advanced Composition or Creative Writing	3	
English Philology and Grammar	3	
Literary Criticism	3	
Shakespeare	3	
Electives	12	credits
Pre-Shakespeare	3	
Romantic Movement	3	
Elizabethan Literature	3	
American Poetry	3	
Seventeenth Century Literature	3	
Eighteenth Century Literature	3	
Victorian Literature	3	
Modern Drama	3	
The Novel to 1879	3	
Contemporary Novel	3	
Essay	3	
Short Story	3	
Literature of Biography	3	
Advanced Composition or Creative Writing	3	

In addition the English Department recommends courses in speech and foreign languages as desirable additions to the competency of teachers of English.

"Reading" will be written on the secondary certificate valid for English when an applicant has completed a minimum of six trimester hours of developmental and remedial reading.

FRENCH

Total Credits required for field	24	credits
Elementary French I	3	
Elementary French II	3	
(Students without an adequate background of two years of high school French will be required to complete Elementary French I & II. These courses will not be counted in the area of specialization.)		
Required Courses:		
Intermediate French I	3	
Intermediate French II	3	
(Students in French will be expected to pass a proficiency examination in the French language.)		
French Culture and Civilization I	3	
French Culture and Civilization II	3	
French Conversation and Composition	3	
Electives:		
Readings in Contemporary French Literature	3	
History of France	3	
Field Work in French Studies I	3	
Field Work in French Studies II	3	

GEOGRAPHY

Total credits required for field	24 or 25	credits
Required Courses	15 or 16	credits
Economic Geography	3	
Geography of U. S. and Pennsylvania	3	
Meteorology OR	3	
Physical Geology	(4)	
Cartography	3	
Seminar	3	
Elective Courses	9 or 10	credits
GROUP I — Regional Courses (3 credits to be selected from this group)		
Geography of Pennsylvania	3	
Geography of United States and Canada	3	
Geography of Latin America	3	
Geography of Europe	3	
Geography of Asia	3	
Geography of the Far East	3	
Geography of Africa	3	
Geography of the Soviet Union	3	
Geography of the Pacific Basin	3	
Summer Field Trip	1 to 6	
Honors in Geography	3	
GROUP II — Cultural Courses (3 credits to be selected from this group)		
World Problems in Geography	3	
Conservation of Natural Resources	3	
Geographic Influences in American History	3	
Trade and Transportation	3	
Commercial and Industrial Geography	3	
Commercial Air Transportation	3	
Urban Geography	1, 2, or 3	
Special Problems	1, 2, or 3	
GROUP III — Physical Courses (3 credits to be selected from this group)		
Astronomy (Descriptive)	3	
Geology (Physical)	4	
Geology (Historical)	4	
Physiography	3	
Meteorology	3	
Climatology	3	
Oceanography	3	
Field Methods in Geography	3	
Physical Geography	3	

Geography majors are strongly urged to take courses in Social, Biological and Physical Sciences as the chairmen and staffs of the departments consider desirable.

The study of a foreign language is desirable for all geography majors.

GERMAN

Total credits required for field	24	
Elementary German I	3	
Elementary German II	3	
(Students without an adequate background of two years of high school German will be required to complete Elementary German I & II. These courses will not count in the area of specialization.)		
Required Courses:		
Intermediate German I	3	
Intermediate German II	3	
(Students in German will be expected to pass a proficiency examination in the German language.)		
German Culture and Civilization I	3	
German Culture and Civilization II	3	
Composition and Conversation	3	
Electives:		
German Literature I	3	
German Literature II	3	
Readings in Contemporary German I	3	
Readings in Contemporary German II	3	
History of Germany	3	
Field Work in German Studies	3	

HISTORY

Total credits required for field	30	credits
Required Courses	24	credits
GROUP I (12 credits to be selected from this group)		
Ancient World	3	
Medieval Europe	3	
History of Europe to 1815	3	
History of Europe since 1815	3	
Renaissance and Reformation	3	
Contemporary Europe	3	
History of England	3	

GROUP II (6 credits to be selected from this group)	
United States and Pennsylvania II	3
Contemporary United States	3
Diplomatic History of the United States	3
American Constitutional History	3
History of Pennsylvania	3
Social and Industrial History of United States	3
History of the American Worker	3
GROUP III (6 credits to be selected from this group)	
History of Latin America	3
History of the Far East	3
History of the Middle East	3
Twentieth Century World History	3
History of Russia	3
Elective Courses	6 credits

MATHEMATICS

Total credits required for field	30	credits
Required Courses		
College Algebra	3	
College Trigonometry	3	
Analytical Geometry	3	
Calculus I	3	
Calculus II	3	
Geometry I	3	
Geometry II	3	
Elective Courses		
Calculus III	3	
Differential Equations	3	
Theory of Equations	3	
Abstract Algebra	3	
Statistics	3	
Field Work in Mathematics	3	
Math Insights replace Fundamentals of Math.		
Elective Courses	9	credits

The Department of Mathematics recommends that freshman students intending to major in mathematics schedule Analytic Geometry in the first Trimester. This permission will be limited to those students having sufficient preparation in high school mathematics as determined by their high school record and/or the achievement on the math section of the placement examination. Students starting with Analytic Geometry will be able to schedule six hours of additional electives to take the place of College Algebra and Trigonometry. Math Insights replaces Fundamentals of Math in the general education courses.

PHYSICS

Total credits required for field	38	credits
Required Courses		
Physics I	4	
Physics II	4	
Physical Principles will replace Man and His Physical World.		
College Algebra	3	
Integral Calculus	3	
Analytical Geometry	3	
Differential Calculus	3	
College Trigonometry	3	
Elective Courses	15	credits
These courses may follow Physics I		
Mechanics	4	
Electricity and Magnetism	4	
Physical Measurements	2	
Special Problems in Physics I	2	
These courses may follow Physics II		
Heat and Sound	4	
Optics	4	
Modern Physics	4	
Physical Measurements II	2	
Special Problems in Physics II	2	
Electronics	4	
Terminal		

RUSSIAN

Credits required for field	24	credits
Elementary Russian I	3	
Elementary Russian II	3	
(Students without an adequate background of two years of high school Russian will be required to complete Elementary Russian I and II. These courses will not be counted toward the area of specialization.)		
Intermediate Russian I	3	
Intermediate Russian II	3	
Russian Culture and Civilization	3	
(Students in Russian will be expected to pass a proficiency examination in Russian language before continuing since all further courses are offered only in Russian.)		
Russian Culture and Civilization I	3	
Russian Literature I	3	
Russian Literature II	3	
Readings in Contemporary French Literature	3	
Russian History	3	

SPANISH

Total Credits required for field	24	credits
Elementary Spanish I	3	
Elementary Spanish II	3	
(Students without an adequate background of two years of high school Spanish will be required to complete Elementary Spanish I and II. These Courses will not be counted toward the area of specialization.)		
Required Courses:		
Intermediate Spanish I	3	
Intermediate Spanish II	3	
(Students in Spanish will be expected to pass a proficiency examination in the Spanish language.)		
Spanish Culture and Civilization I	3	
Hispanic American Culture and Civilization II	3	
Spanish Conversation and Composition	3	
Electives:		
Literature of Spain	3	
Literature of Hispanic America	3	
Readings in Hispanic American Literature	3	
Field Work I & II	3	

GENERAL SPEECH

Total credits required for field	36	credits
Required Courses	26	credits
*Phonetics OR		
*Voice and Diction	3	
(The completion of either of these courses is considered essential before scheduling any elective course. They may be taken concurrently.)		
*Fundamentals of Speech	3	
Forms of Public Address	3	
Argumentation and Debate	3	
Oral Interpretation	3	
Stage Direction	3	
Technical Play Production	3	
Discussion and Conference Techniques	3	
Theories of Rhetoric	2	
Elective Courses	10	credits
Phonetics	3	
Voice and Diction	3	
Advanced Phonetics	3	
Parliamentary Procedure A	1	
Parliamentary Procedure B	1	
Parliamentary Procedure C	1	
Educational Television and Radio	3	
History of the Theatre	3	
Acting	3	
Choral Speaking	3	
Children's Theatre	3	
Teaching of Speech in Elementary School	3	
Speech Correction Elective	2 or 3	
(Anatomy of Speech and Hearing Mech. OR Elementary Clinical Practice)		
Required Professional Courses (not counted in area of specialization)		
Teaching of Speech in Secondary School	3	

* - Open to students in all curricula without prerequisites.

DEGREE PROGRAM FOR DENTAL HYGIENISTS

The degree of Bachelor of Science in Education will be conferred upon dental hygienists meeting the following requirements:

1. The possession of a valid license to practice dental hygiene in the Commonwealth of Pennsylvania issued by the State Dental Council and Examining Board and the Department of Public Instruction.
"The Professional education requirements for dental hygiene is the satisfactory completion of an approved dental hygienist course of instruction of two years of not less than thirty-two weeks and not less than thirty hours each week or its equivalent in and graduation from a dental hygiene school approved by the State Dental Council and Examining Board."
2. The satisfactory completion in addition thereto of 64 semester hours of professional and general education courses distributed as follows:

A. Education	Semester Hours
(1) Professional Orientation	3
(2) General Psychology	3
(3) Educational Psychology	3
(4) Audio-Visual Education	2
Total	11
 B. General Education	
(1) Communication I	5
or English Comp I	(3)
and Speech I	(2)
Communication II	5
or English Comp II	(3)
and Speech II	(2)
(2) Fine Arts	4
a. Intro to Art	(2)
b. Intro to Music	(2)
(3) Geography	6
a. World Geography	(3)
b. Geography of U. S. and Pa.	(3)
(4) World Culture I	5
or Hist of Civ I	(3)
and Lit I	(2)
World Culture II	5
or Hist of Civ II	(3)
and Lit II	(2)
(5) Social Studies	11
a. American Government	3
b. Economics	3
c. History of U.S. and Pa.	3
d. Sociology	2
Total	41
C. Electives	12
Grand Total	64

In each previous category, credit will be given for equivalent courses pursued in the two-year dental hygiene curriculum. In such cases students must increase their electives by the number of semester hours so credited.

In the case of dental hygienists who had less than two years of specialized training on the basis of which they were licensed to practice dental hygiene, proportional credit will be given. Such persons must pursue additional general education courses in college to make up the deficiency.

Electives may be chosen with the approval of the Dean of Instruction from any field or curriculum offered at the college in which the student is enrolled.

The curriculum will be effective as of January 23, 1951.

DEGREE PROGRAM FOR PUBLIC SCHOOL NURSING

The program for Public School Nursing was revised by the Board of Directors on August 2, 1960. The following requirements are effective for those nurses who began the degree program after September 1, 1961.

1. All registered nurses in Pennsylvania who were graduated and registered since September 1952, be required to complete 60 credits of approved education at the state college distributed as follows:

Courses related to Public School Nursing	15	credits
Courses in Social Studies	9	credits
Courses in English and Literature	7	credits
Courses in Education	12	credits
Electives in General Education	17	credits
Total	60	credits

2. Any nurse graduated and registered previous to 1952 should have her credits evaluated in order to determine if any additional work is necessary for a degree.

All persons desiring to enroll in the Public School Nursing Program should be interviewed by the Dean of Instruction. The Director of Secondary Curriculum will assist with the scheduling of classes.

B. Bachelor of Arts Degree

The Bachelor of Arts degree is awarded to those persons completing the requirements of the liberal arts curriculum.

THE CURRICULUM

I. GENERAL STUDIES

Sixty semester hours in general education must be completed by all liberal arts students as follows:

- A. Communicative Arts 18 hours
 - English Composition 6 hours
 - Foreign Language 6 hours
(beyond elementary language)
 - Fundamentals of Speech 3 hours
 - Logic or Mathematics 3 hours
- B. Scientific Method 8 hours
 - Laboratory Science — A one-year sequence in any one of the following:
 - General Chemistry I and II
 - General College Physics I and II
 - General Biology I and II or Zoology I and II or Botany I and II
 - Geology (Physical and Historical)
- C. Man's Understanding of Himself 21 hours
 - Social Science
(6 hours of World Culture) 12 hours
 - General Psychology 3 hours
 - World Geography 6 hours
 - Four semester hours of physical education and/or health will be required as a graduation requirement.
- D. Appreciation 10 hours
 - Literature
 - a. one-year sequence 6 hours
 - Art 2 hours
 - Music 2 hours
- E. Meaning of Life 3 hours
 - Philosophy 3 hours

II. AREAS OF CONCENTRATION

One of the following — The degree of Bachelor of Arts in the Humanities, Bachelor of Arts in Social Sciences, or Bachelor of Arts in Natural Sciences will be sought by the student.

For any one of the degrees the student will schedule 50 semester hours in his area of concentration, of which 20 hours may be in his field of specialization.

A. THE HUMANITIES

In addition to the General Studies required by all students in liberal arts, each candidate for a degree in Humanities will take 50 semester hours as follows:

English and Literature	12 hours
Foreign Language	6 hours
Speech Arts	6 hours
Philosophy	3 hours
Fine Arts	3 hours
Total	30 hours

The Fields of Specialization in Humanities are as follows:

1. FRENCH

- a. **REQUIRED COURSES** (all courses 3 hours)
 - Intermediate French I and II (taken as General Studies)
 - French Culture and Civilization I and II (taken in Humanities Concentration)
 - French Literature I (Survey of the Middle Ages to 1800)
 - French Literature II (The Nineteenth and Twentieth Centuries)
 - Total
- b. **ELECTIVES: 12 to 18 hours from this group** (all courses 3 hours)
 - Readings in Contemporary French Literature
 - Literary, Cultural and Political History of France
 - The French Novel
 - French Lyric Poetry
 - Field Work in French Studies I and II
 - Total

2. GERMAN

- a. **REQUIRED COURSES** (all courses 3 hours)
 - Intermediate German I and II
 - German Culture and Civilization I and II
 - German Composition and Conversation
 - Total
- b. **ELECTIVES: 15 to 21 hours — from this group.** (All courses are 3 hours.)
 - Advanced German Composition and Conversation
 - German Literature of the Period of Realism
 - German Literature of the Classical Period
 - German Literature of the Romantic Period
 - German Lyric Poetry
 - The German Novelle
 - Goethe's *Faust*
 - Contemporary German Literature
 - Contemporary German Literature, Reading the Latest Newspapers and Journals
 - German Nineteenth Century Drama
 - History of Germany
 - Field Work in German Studies I and II
 - Total

3. SPANISH

- a. **REQUIRED COURSES** (all courses 3 hours)
 - Intermediate Spanish
 - Advanced Spanish I and II
 - Culture and Civilization of Spain and Hispanic America
 - Literature of Spain
 - Literature of Hispanic America
 - Total

- b. **ELECTIVES** — (12 to 18 hours from this group)
 - History of Spain and Hispanic America
 - Reading in Hispanic American Literature
 - Spanish Novel
 - Hispanic American Novel
 - Spanish Drama
 - Elective Reading in Hispanic American Literature
 - Total 12 to 18 hours

4. ENGLISH

- a. **REQUIRED COURSES**
 (12 hours taken as part of General Studies or Humanities Concentration)
 - American Literature I and II 6 hours
 - English Literature I and II 6 hours
 - English Philology and Grammar 3 hours
 - Advanced Composition or Creative Writing 3 hours
 - Total 6 hours

- b. **ELECTIVES: 12 to 15 hours from this group** (all courses 3 semester hours unless indicated otherwise)
 - Pre-Shakespearean Literature
 - Seventeenth Century Literature
 - Eighteenth Century Literature
 - Romantic Movement
 - Victorian Literature
 - The Novel to 1870
 - Contemporary Novel
 - Short Story
 - Creative Writing
 - Contemporary Poetry
 - Modern Drama
 - The Essay
 - Literature of Biography
 - Literary Criticism
 - Shakespeare
 - Journalism
 - Honors Course in English (may be repeated)
 - Seminar in English (1)
 - Total 12 to 15 hours

5. SPEECH

- a. **REQUIRED COURSES**
 (9 hours taken as part of General Studies or Humanities Concentration)
 (All 3 hour courses)
 - Phonetics OR Voice and Diction
 - Fundamentals of Speech
 - Forms of Public Address
 - Argumentation and Debate
 - Oral Interpretation
 - Technical Play Production
 - Total 9 hours

- b. **ELECTIVES (12 hours)**
 (All courses 3 semester hours except Parliamentary Procedure which is 1 to 3, Theories of Rhetoric which is 2, and Seminar which is 1 hour)

If the students' interests are in the theater, nine hours of electives should be from the theater group; if the interests are in public address, nine hours should be from that group.

<i>Theater</i>	<i>Public Address</i>
Choral Speaking	Parliamentary Procedure
Acting	Advanced Phonetics
Stage Direction	Discussion and Conference
History of the Theater	Techniques
	Education Television and
	Radio
	Theories of Rhetoric
Honors Course in Speech	Honors Course in Speech
Seminar in Speech	Seminar in Speech
	Total 11 or 12 hours

B. THE NATURAL SCIENCES AND MATHEMATICS

In addition to the General Studies required by all students in liberal arts, each candidate for a degree in Natural Sciences and Mathematics will take 50 semester hours as follows:

General Biology I and II or Botany I and II or Zoology I and II	8 hours
General Chemistry I and II	8 hours
College Physics I and II	8 hours
Geology (Physical and Historical)	8 hours
Calculus I and II	6 hours
Total	30 hours

1. BIOLOGY

a. REQUIRED COURSES

Botany I and II or Zoology I and II	8 hours
Seminar in Biology	2 hours
Total	10 hours

b. ELECTIVES

12 to 15 semester hours will be selected from the following courses:

Vertebrate Anatomy	Field Botany
Microbiology	Organic Evolution
Physiology	Ornithology
Genetics	Entomology
Systematic Botany	Conservation of
Ecology	Biological Resources
Embryology	Plant Physiology
Field Biology	

All electives are 3 hour courses.

The student may elect to place emphasis upon Animal Biology, Plant Biology, or Field Biology.

The sub-curricula for each are:

Emphasis upon *Animal Biology*

Required courses as above. Electives, 12 to 15 hours, to be chosen from:

Vertebrate Anatomy	Genetics
Embryology	Field Zoology
Physiology, Animal	Entomology

Emphasis upon *Plant Biology*

Required courses as above. Electives, 12 to 15 hours to be chosen from:

Plant Physiology	Genetics
Systematic Botany	Field Botany
Microbiology	Ecology

Emphasis upon *Field Biology*

Required courses as above. Electives to be chosen from:

Ecology	Field Zoology
Entomology	Systematic Botany
Field Botany	Plant Physiology

(Two to five hours of FREE ELECTIVES included herein.)

2. CHEMISTRY

a. REQUIRED COURSES

Analytical Chemistry I and II	8 hours
Chemistry Seminar	1 hour
Total	9 hours

b. ELECTIVES

Organic Chemistry I	(4)
Organic Chemistry II	(4)
Organic Preparations	(3)
Biochemistry I	(3)
Biochemistry II	(3)
Physical Chemistry I	(4)
Physical Chemistry II	(4)
Instrumental Analysis I	(3)
Instrumental Analysis II	(3)
Laboratory Techniques in Chemistry	(3)
Industrial Chemistry	(3)
Colloid Chemistry	(3)
Food Analysis	(3)
Agricultural Chemistry	(3)
Radio Chemistry	(3)
Nuclear Chemistry	(3)
Literature of Chemistry	(1)
Special Problems in Chemistry	(1)(2)
Total	11 hours

3. PHYSICS

a. REQUIRED COURSES

College Physics I and II
Calculus I and II
(Completed — see above)

b. ELECTIVES: 20 semester hours from this group.

Astronomy	(3)
Mechanics	(4)
Magnetism and Electricity	(4)
Heat, Wave Motion and Sound	(4)
Optics	(4)
Modern Physics	(4)
Physical Measurements I and II	(4)
(2 each)	
Advanced Mechanics	(3)
Advanced Electricity and Magnetism	(3)
Electronics	(4)
Seminar in Physics	(1)
Total	20 hours

4. MATHEMATICS (all courses 3 hours except Seminar which is 1 hour)

a. REQUIRED COURSES

Calculus III	Differential Equations
Geometry II	Advanced Calculus I
Abstract Algebra	Advanced Calculus II
Total	18 hours

- b. **ELECTIVES:** One course from this group.

Fieldwork in Mathematics	Mathematics of Finance
Theory of Equations	Honors Course in Mathematics
Statistics	(May be repeated)
Mathematical Insights	Seminar in Mathematics
Total	3 hours

C. THE SOCIAL SCIENCES

In addition to the General Studies required by all students in liberal arts, each candidate for a degree in the Social Sciences will take 50 semester hours as follows:

1. **HISTORY** (all courses 3 hours)
 - a. **REQUIRED COURSES**
 - History of Europe to 1815
 - History of Europe since 1815
 - Total
 - b. **ELECTIVES:** 12 to 15 hours from the group.
 - History of U.S. & Pa. I
 - History of U.S. & Pa. II
 - History of Pennsylvania
 - Contemporary History of U.S.
 - History of Ancient World
 - History of Medieval Europe
 - Renaissance and Reformation
 - Diplomatic History of United States
 - American Constitutional History
 - Social and Industrial History of United States
 - History of England
 - History of Latin America
 - History of Far East
 - History of Middle East
 - History of Russia
 - Contemporary World History
 - History of American Labor
 - History of Contemporary Europe
 - Total
2. **POLITICAL SCIENCE:** (all courses 3 hours)
 - a. **REQUIRED COURSES**
 - American Government
 - State and Local Government
 - Total
 - b. **ELECTIVES**
 - International Relations
 - United Nations
 - Political Parties
 - World Politics
 - Comparative Government
 - History of Political Thought
 - American Constitutional Law
 - Total
3. **GEOGRAPHY**
 - a. **REQUIRED COURSES**
 - Economic Geography
 - A regional course
 - Research in this region
 - (Special Problems in Geography)
 - A Physical course
 - A Cultural course
 - Cartography
 - Seminar in Geography
 - Total

- b. **ELECTIVES:** One course selected from each group as part of 20 hours in A above (total 9 or 10 hours).

<p><i>Regional Geography</i> Geography United States and Pennsylvania United States and Canada Latin America Europe Asia The Far East Africa The Pacific Basin The Soviet Union Summer Field Trip</p> <p><i>Cultural Courses</i> World Problems in Geography Conservation of Natural Resources</p> <p>Special Problems in Geography (in ANY group)</p>	<p>Geographic Influences in American History Trade and Transportation Commercial and Industrial Geography Commercial Air Transportation Urban Geography</p> <p><i>Physical Courses</i> Astronomy (Descriptive) Physical Geology Historical Geology Meteorology Climatology Physical Geography Physiography Oceanography Cartography Field Methods in Geography</p>
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III. ELECTIVES

Each student must take a minimum of 18 semester hours of free electives. Not more than 6 of these may be in the student's area of concentration. Minimum semester hours for graduation128

IV. OPPORTUNITIES FOR INDEPENDENT STUDY

Within the various fields of specialization the student may, with the help of his advisor, elect those courses which most directly serve his needs. The various academic departments offer Honors Programs which enable the student to pursue individual study over a period of as long as three trimesters. These Honors Programs give opportunity for exploration both in breadth and depth of the student's interests.

ADMISSION

Students are considered for admission to the Liberal Arts curriculum on the basis of:

1. General scholarship, as evidenced by graduation from an approved secondary school, or equivalent preparation, as determined by the Credentials Evaluation Division of the Department of Public Instruction.
2. Submission of scores of the Scholastic Aptitude test of the College Entrance Examination Board.
3. Satisfactory character and personality traits plus interests and attitudes conducive to successful college work as reported by secondary school officials.
4. Good health and physical condition as reported by a physician on the medical examination form of the college.
5. Inclusion of the following secondary school work is recommended:

Academic Mathematics	2 years
English	3 years
Foreign Language	2 years
Science	2 years
Social Studies	2 years
Electives	5 years

Admission with Advanced Standing

6. All previous listed requirements must be met.
7. The student must request of the college(s) previously attended that a transcript of work completed and a statement of honorable dismissal be mailed to the Director of Admissions.
8. Transferred credit will be accepted on the following bases:
 - a. Final grade earned must be "C" or better.
 - b. Transferring college must be accredited by the regional crediting association.

Information on Admission

Applicants should write to the Director of Admissions for the necessary admissions and registration papers and should follow the procedures directed by that office.

ADVISEMENT

Each student electing the liberal arts curriculum is given advisement by the Director of the Liberal Arts Program concerning his individual needs in his area of concentration and field of specialization. Advisors in the various fields of specialization give further help to students in planning of their programs. Additional information may be obtained by writing to the Director of the Liberal Arts Program.

C. Programs for Teacher Certification

Highway Safety and Driver Education

Effective September 1, 1951, a student who holds or will hold a valid certificate to teach will be issued an additional temporary standard certificate to teach Highway Safety Education if the student has completed twelve semester hours in courses in Driver Education and Training. The temporary standard certificate so issued will become permanent after two years of successful experience in the field and the completion of three trimester hours in General Safety Education.

The American Automobile Association has approved the Highway Safety Education courses offered at this college.

Library Science (Elementary) Endorsement

The holder of a certificate valid for elementary education may have an endorsement of library science upon the completion of twelve (12) semester hours in this field of study. A library science endorsement is valid only in those grades designated for the elementary schools.

V. Course Offerings

Course Offerings

The required and elective courses available at California are listed under the several departmental headings. Each course, when offered during the regular trimester, is taught for 16 weeks. The number of clock hours of instruction each week for the trimester hours of credit is indicated. The clock hours listed are minimal; individual courses, because of special needs or exceptional facilities, occasionally exceed these established standards in the interest of better teacher education.

Not all of the courses listed in this section are given in any one trimester or even in any one year. Courses may be withdrawn without notice. A schedule of classes listing the days, hours and instructor for each course is available in the office of the Curriculum Directors, prior to registration. Students are encouraged to carefully plan their programs several years ahead so they may graduate as planned.

The course numbering system used at California is as follows:

- 1 to 99 Remedial Courses — No college credit
- 100 to 199 First year undergraduate courses
- 200 to 299 Second year undergraduate courses
- 300 to 399 Third year undergraduate courses
- 400 to 499 Fourth year undergraduate courses
- 500 to 599 Graduate division courses in General Education
- 600 to 699 Graduate division courses in Professional Education
- 700 to 799 Graduate division courses in Areas of Specialization
- 800 to 899 Graduate division courses in Research

Descriptions of the graduate courses will be found in the Graduate Bulletin.

FINE ARTS DEPARTMENT

Mr. Angus Douple, *Department Head*; Mr. Collelli, Mr. Dovenspike, Mr. Kotouch, Mrs. Wood.

ART

Art 201 INTRODUCTION TO ART, 2 cr.

A course dealing with art as a vital part of contemporary living. Art of other ages will be given some consideration as a basis for interpreting the present. Students will be encouraged to experiment with materials in order to understand the creative process. Through a variety of experiences an attempt will be made to help students develop an awareness of and a sensitiveness to all forms of art.

Three class hours each week.

Art 205 CREATIVE ART ACTIVITIES, 3 cr.

This is a drawing and painting course (no previous art training is necessary). Instruction in pictorial representation in various art media, particularly crayon, water color and oil painting. Opportunity for specialization.

Four class hours each week.

Art 455 CONTEMPORARY ART IN AMERICA, 2 cr.

A study of the development of Contemporary painting, architecture and sculpture in the United States, with emphasis on 20th Century developments.

Three class hours each week.

MUSIC

Mus 180 CO-CURRICULAR ACTIVITIES — BAND, 1 cr.

Mus 181 CO-CURRICULAR ACTIVITIES — CHORUS, 1 cr.

Mus 182 CO-CURRICULAR ACTIVITIES — GLEE CLUB, 1 cr.

Mus 201 INTRODUCTION TO MUSIC, 2 cr.

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.)

Three class hours each week.

Mus 280 CO-CURRICULAR ACTIVITIES — BAND, 1 cr.

Mus 281 CO-CURRICULAR ACTIVITIES — CHORUS, 1 cr.

Mus 282 CO-CURRICULAR ACTIVITIES — GLEE CLUB, 1 cr.

Mus 380 CO-CURRICULAR ACTIVITIES — BAND, 1 cr.

Mus 381 CO-CURRICULAR ACTIVITIES — CHORUS, 1 cr.

Mus 382 CO-CURRICULAR ACTIVITIES — GLEE CLUB, 1 cr.

Mus 430 OPERA SURVEY, 3cr.

This course will provide its students with (1) the origin and history of opera, (2) National contributions to the art, (3) the listening and analysis of numerous representative operas, (4) the relationship of plots to history and events.

Three class hours each week.

ATYPICAL EDUCATION

Dr. Henry, *Chairman*; Mr. Bowlen, Mr. Bitonti, Mr. Fabian, Mrs. Hughes, Dr. Moree.

ATYPICAL-MENTALLY RETARDED

Aty-MR 301 CURRICULUM PLANNING, MATERIAL AND EQUIPMENT, 3 cr.
Problems in the selection and placement of children in Atypical class programs. Type and costs of equipment needed. Meeting parents and community problems. Education of teachers, parents, school board and community of values in Atypical programs. Selecting Atypical class teachers and planning for improvement in service.

Two class hours each week.

Aty-MR 302 ARTS AND CRAFTS FOR ATYPICAL CLASSES, 3 cr.
Devices, techniques, and methods for making interesting, useful, and attractive articles are considered for use with children in Atypical classes. Projects in simple handloom weaving, rake knitting, textile toys, basketry, and wood are emphasized.

Three class hours each week.

Aty-MR 303 ADVANCED ARTS AND CRAFTS, 3 cr.
Progressive steps in weaving techniques on two- and four-harness looms are taught. Opportunities for the beginning weaver to express himself creatively in color, design, and texture are offered. Consideration of sources and selection of equipment, accessories, and materials are given.

Three class hours each week.

Aty-MR 401 SPECIAL CLASS METHODS, 3 cr.
Major emphasis is given to basic procedures for planning and implementing an adequate educational program for mentally retarded children of different age and ability levels. The course provides a developmental approach with emphasis on specific techniques and methods for meeting the needs of these children.

Three class hours each week.

Aty-MR 402 GUIDANCE WITH EMPHASIS ON INTERVIEWING AND PARENT EDUCATION, 3 cr.

It is important to help parents accept the handicap of their child whether it be mental retardation, physical impairment, a speech defect or any other condition. This course attempts to help parents recognize and adjust to the realities of their child's condition.

Three class hours each week.

Aty-MR 410 DIAGNOSTIC TESTING AND REMEDIAL TEACHING, 3 cr.
Study of achievement tests useful for diagnostic purposes. Teaching procedures adjusted to particular needs or weaknesses. To include all school curriculum, elementary and secondary.

Three class hours each week.

Aty-MR 449 STUDENT TEACHING IN CLASSES FOR MENTALLY RETARDED CHILDREN, 6 cr.

Observation and participation in all teaching and activities related to the performance of a teacher's work in the class for mentally retarded children.

The student spends full time in actual classroom teaching for one-half trimester of sixteen weeks.

Aty-MR 490 HONORS COURSE IN MENTALLY RETARDED EDUCATION, 3 cr.

Aty-MR 491 HONORS COURSE IN MENTALLY RETARDED EDUCATION, 3 cr.

Aty-MR 492 HONORS COURSE IN MENTALLY RETARDED EDUCATION, 3 cr.

Aty-MR 495 SEMINAR IN MENTALLY RETARDED EDUCATION, 1 cr.

ATYPICAL-SPEECH AND HEARING

Aty-SH 101 HEARING PROBLEMS, 3 cr.

The appreciation of the many problems of children and adults with hearing losses in order to acquaint interested persons as to how to improve and to better adjust the child or adult to his hearing problem.

Three class hours each week.

Aty-SH 102 SPEECH PATHOLOGY, 3 cr.

A foundation course for speech correction, including a study of the anatomy and physiology of the speech mechanism and some consideration of the causes, symptoms, nature, and management of speech disorders.

Three class hours each week.

Aty-SH 103 LANGUAGE AND SPEECH DEVELOPMENT, 3 cr.

A survey of methods, procedures and equipment in order to deal more intelligently as to what we do and what we can do for children and communities.

Three class hours each week.

Aty-SH 204 AUDITORY TRAINING AND SPEECH READING, 3 cr.

Students study and compose the different systems of teaching Speech Reading. Lessons in Auditory Training are planned for the different age and hearing difficulty groups.

Three class hours each week.

Aty-SH 205 PSYCHOLOGY OF SPEECH AND HEARING, 3 cr.

An explanation of the psychological factors involved in the study of speech and hearing. Special emphasis is given to listening.

Three class hours each week.

Aty-SH 206 PHYSIOLOGY AND ANATOMY OF SPEECH AND HEARING, 3 cr.

A study of the anatomy and the physiology of the ear and the speech mechanism dealing with their functions and capabilities in their performance necessary for speech and hearing.

Three class hours each week.

Aty-SH 207 PRACTICE IN MEASUREMENT AND ADJUSTMENT FOR HEARING PROSTHESIS, 2 cr.

A study is made of the many types of tests involved in measurement. Practice is required in the use of the audiometer.

Two class hours per week. One laboratory hour.

Aty-SH 270 STUTTERING, 3 cr.

This course is designed to deal with the prevalent theories and therapies of stuttering. Students learn therapeutic techniques for both children and adults.

Prerequisite: Elementary Clinical Practice.

Three class hours each week.

Aty-SH 308 CLINICAL PRACTICE IN AUDITORY TRAINING AND SPEECH READING, 3 cr.

Students study and compose the different systems of teaching Speech Reading. Lessons in Auditory Training are planned for the different age and hearing difficulty groups.

Three class hours each week.

Aty-SH 309 SPEECH PROBLEMS, 3 cr.

Acquaintance of students with the various speech problems common to children in the elementary school. Emphasis is placed upon remedial techniques. The study of materials, methods, and techniques used by classroom teachers in improving the speech of all children.

Three class hours each week.

Aty-SH 313 ELEMENTARY SPEECH CLINIC, 3 cr.

Practice in clinical procedure; a review of speech disorders and methods of diagnosis and remedial treatment; opportunity for the accumulation of corrective materials and observation of the work of the speech clinician.

Six laboratory hours each week.

Aty-SH 314 ADVANCED SPEECH CLINIC, 3 cr.

Correctionist practice. Each student is responsible for his own cases, including diagnosis, analysis, therapy, reports, follow-up, and other problems, with planned supervision. Practice is carried on in the College Speech Clinic, Noss Laboratory school, and an out-patient clinic for children of school age.

Six laboratory hours each week.

Aty-SH 440 METHODS AND TECHNIQUES IN SPEECH CORRECTION, 3 cr.

Aty-SH 450 STUDENT TEACHING, 12 cr.

Observation and participation in all teaching and activities related to the performance of a teacher's work in the classroom. The student spends full time in actual classroom teaching one trimester of sixteen weeks.

Aty-SH 451 PROFESSIONAL PRACTICUM AND SCHOOL LAW, 2 cr.

Methods and practices of teaching. General techniques of teaching and techniques for the student's special field. Pennsylvania school laws relevant to the work of the classroom teacher. Problems encountered by the students in their student teaching.

Two class hours each week.

Aty-SH 490 HONORS COURSE IN SPEECH AND HEARING, 3 cr.

Aty-SH 491 HONORS COURSE IN SPEECH AND HEARING, 3 cr.

Aty-SH 492 HONORS COURSE IN SPEECH AND HEARING, 3 cr.

Aty-SH 495 SEMINAR IN SPEECH AND HEARING, 1 cr.

EDUCATION DEPARTMENT

Dr. Proud, *Department Head*; Mr. Aldstadt, Mrs. Alto, Miss Andersen, Miss Baliker, Mrs. Barry, Mr. Butler, Mr. Cairns, Mr. Condon, Mr. Covell, Dr. Crowley, Dr. Culler, Miss Dalaidi, Mrs. DeCarlo, Mr. Dochinez, Dr. Dunn, Dr. Fisher, Dr. Gamble, Miss Glod, Mrs. Hamilton, Mr. Herron, Mrs. Holman, Dr. Hoyes, Mrs. Hughes, Mr. Hughes, Dr. Jones, Mr. Kennedy, Miss King, Mr. Kulikowski, Mr. Levandos, Dr. Long, Mr. McDonald, Mrs. Marsh, Dr. Miller, Mr. Natali, Dr. Naylor, Miss O'Brien, Dr. Porter, Mr. Richards, Dr. Shutsy, Dr. Sterrett, Mr. Welsh, Mrs. Weaver, Mrs. Willett.

Ed 1 REMEDIAL READING, no credit

Ed 100 FRESHMAN ORIENTATION, no credit

Opportunity to help in problems of personal adjustment and for discussion of the nature, objectives, traditions and regulations of the college are provided. Basic materials for student's personnel files are prepared in orientation classes. Required for all entering freshmen.

Two hours each week for first six weeks.

Ed 101 PROFESSIONAL ORIENTATION, 3 cr.

An orientation and guidance course acquainting prospective teachers with the opportunities and requirements of the profession; the relationship of the school to society; the organization and administration of the American School system. Extensive directed observation of various schools and learning situations will be required. Acceptable as credit for Introduction to Teaching.
Three class hours each week.

Ed 102 DEVELOPMENTAL READING, 2 cr.

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 to adapt flexibility of reading rate and method to various kinds of material and to the different purposes in reading.

Two class hours each week.

Ed 301 AUDIO VISUAL EDUCATION, 2 cr.

The need for sensory techniques and materials in the learning process with attention to the psychological principles involved are given major consideration in this basic course. Activities include the production of inexpensive audio-visual aids, the limited use of selected aids, and an understanding of the best sources of teaching materials.

Three class hours each week.

Ed 302 AUDIO VISUAL WORKSHOP, 2 cr.

An opportunity for more intensive study in the Audio, Visual and Audio-Visual field with greater possibilities for the application of techniques involving sensory aids. Direct laboratory experiences involving machine competency and problem-solving situations are a major consideration. Motion picture film library experience is required. Special skills and abilities correlating this field provided areas for individual study.

Prerequisite: Audio-Visual Education or consent of the instructor.

Three class hours each week.

Ed 350 TEACHING READING IN CONTENT SUBJECTS, 2 cr.

The techniques of teaching reading in the content areas. The prospective teacher will gain knowledge concerning general reading practices and specific reading skills necessary in his area of specialization.

Two class hours each week.

Ed 401 MENTAL TESTS, 3 cr.

A basic course in the theory and application of psychological tests with emphasis on the interpretation and application of results for pupil guidance purposes. The course includes laboratory work in administering, scoring, and interpreting test results. Problems in establishing and operating a testing program for guidance in the public school are also considered.

Prerequisite: General Psychology

Three class hours each week.

Ed 455 STUDENT TEACHING WORKSHOP, 6 cr.

For teachers with three or more years' experience who are candidates for degrees and who have not completed the required number of trimester hours in student teaching. After consultation with the Dean of Instruction and the Director of Student Teaching, the student will be assigned to a course suitable to his needs without duplicating courses already accredited. A student who has changed curriculums may not use the course to satisfy the student teaching requirements; he must earn at least six semester hours in accredited student teaching at the appropriate level.

Ed 470 CLINICAL OBSERVATION AND PRACTICE IN EDUCATIONAL THERAPY, 6 cr.

The California State College, through an official affiliation with the Veterans Administration, prepares men and women as Manual Arts Therapists, Industrial Therapists, and Educational Therapists for employment under Civil Service Regulations in Veterans Administration Hospitals throughout the United States.

Students enrolled in the Industrial Arts Curriculum will qualify for positions in Manual Arts and/or Industrial Therapy by indicating such an interest prior to student teaching. Men and women in college curriculums other than industrial arts, may qualify as educational therapists. This preparation can be obtained without sacrificing certification in teaching.

In order to meet the requirements for employment in the Veterans Administration as Manual Arts Therapists, Industrial Therapists, or Educational Therapists, students must complete 240 clock hours of clinical laboratory experience in the Leech Farm Veterans Administration Hospital. This complete program may be taken at any one of the six-weeks student teaching assignments, or six-weeks summer program.

ELEMENTARY EDUCATION

Elem Ed 303 TEACHING OF READING, 3 cr.

The several aspects of problems in the teaching of reading in all elementary grades. Presentation in theory and practice, from careful examination of research and from observation, opportunity for the student to acquaint himself with a variety of modern reading materials and with approved techniques in their use. Problems of disability and their treatment.

Three class hours each week.

Elem Ed 304 CHILD DEVELOPMENT, 3 cr.

Acquisition of understanding and appreciation of the patterns of physical, mental, social, and emotional growth in the period of early childhood. Consideration of local, state, and national agencies concerned with the welfare and education of early childhood. Observation of learning situations in the family, school, and community environments.

Three class hours each week.

Elem Ed 305 ARITHMETIC - CONTENT AND METHOD, 3 cr.

The various processes and operations in the arithmetic of the elementary school are carefully analyzed to determine 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 teaching situations are provided. Stress is placed on understanding of concepts of modern trends in mathematics such as sets, inequalities, number line, numeral systems, modular arithmetic, field postulates, and results of research in arithmetic.

Prerequisite: Fundamentals of Mathematics

Three class hours each week.

Elem Ed 310 HEALTH AND PHYSICAL EDUCATION FOR ELEMENTARY GRADES, 2 cr.

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.

Three class hours each week.

**Elem Ed 316 EDUCATIONAL TESTS AND MEASUREMENTS FOR
ELEMENTARY SCHOOLS, 2 cr.**

A consideration of the simpler statistical measures, with particular stress on their application to classroom work, and of the principles underlying the construction of valid, reliable objective tests, with practice in the making of classroom tests in the various fields of subject matter.

Two class hours each week.

Elem Ed 321 MUSIC FOR THE ELEMENTARY GRADES, 2 cr.

Designed to prepare the elementary teacher in basic fundamentals and 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.

Two class hours each week.

Elem Ed 325 ART FOR ELEMENTARY GRADES, 2 cr.

The study of the philosophy, psychology and trends in art education as it relates to the primary grades. Creative experiences with elementary art materials, such as clay, paper, crayon, watercolor and craft problems as it relates to the total growth of children.

Two class hours each week.

Elem Ed 351 CHILDREN'S LITERATURE, 3 cr.

A survey of those poems and stories known as children's literature, with the selection of appropriate material for use in the elementary grades. To assist teachers in evaluating the reading which the child enjoys, criteria for every type of reading are presented.

Three class hours each week.

Elem Ed 353 DIAGNOSTIC AND REMEDIAL READING, 3 cr.

An examination of the techniques of diagnosing reading difficulties and of determining appropriate remedial treatment. Opportunity is given for observing and participating in procedures in the reading clinic.

Prerequisite: The Teaching of Reading.

Three class hours each week.

Elem Ed 355 TEACHING OF LANGUAGE ARTS, 3 cr.

Survey of the content of the curriculum in English in the elementary grades. Methods of teaching oral and written composition, principles of grammar, poetry and literature. The teaching of handwriting is part of this course.

Three class hours each week.

Elem Ed 358 EARLY CHILDHOOD EDUCATION, 3 cr.

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. Required for specialization in Early Childhood Education.

Three class hours each week.

Elem Ed 370 TEACHING MUSIC IN THE ELEMENTARY GRADES, 2 cr.

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: Music for the Elementary Grades.

Three class hours each week.

Elem Ed 375 TEACHING OF ART IN ELEMENTARY GRADES, 2 cr.
Development of problems suitable for the elementary grades. Every opportunity is given to experiment with materials techniques and processes creatively. Emphasis is placed upon the correlation of art with other subjects for the intermediate grades.

Elem Ed 406 TEACHING THE CONTENT SUBJECTS, 3 cr.
Provides the elementary teacher with a comprehensive course in methods common to such areas of instruction as geography, social studies, and science. The student will be afforded an opportunity to investigate a variety of topics related to good teaching procedures, hear them discussed, and observe them in practice.

Three class hours each week.

Elem Ed 409 DIAGNOSTIC AND REMEDIAL TEACHING, 3 cr.
Study of achievement tests useful for diagnostic purposes. Teaching procedures adjusted to particular needs or weaknesses. To include all school curriculum, elementary and secondary.

Three class hours each week.

Elem Ed 417 NEW METHODS IN SCIENCE FOR ELEMENTARY TEACHERS, 3 cr.

For supervisors and teachers interested in child growth through activities. Opportunities are provided for observation and participation, with emphasis on critical evaluation. The course is of special significance to teachers who, holding the normal school or the standard certificate, are working toward certification in elementary education.

Three class hours each week.

Elem Ed 421 INTEGRATED MUSIC PROGRAMS IN ELEMENTARY GRADES, 3 cr.

Covers all aspects of a progressive public school music program. Includes the study of techniques and procedures as well as projects and units. The area of child creativity is explored. Demonstrations are usually presented to college students also Noss school children (when in session).

Four class hours each week.

Elem Ed 430 TEACHING SPEECH IN ELEMENTARY SCHOOLS

Elem Ed 450 STUDENT TEACHING, 12 cr.

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

Prerequisite: A general quality point average of C or 2.0 and a 2.0 in student's area of specialization. The student spends full time in actual classroom teaching for a trimester of 16 weeks.

Elem Ed 451 PROFESSIONAL PRACTICUM AND SCHOOL LAW, 2 cr.

Methods 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.

Two class hours each week.

LIBRARY CERTIFICATION FOR ELEMENTARY TEACHERS

Lib 470 LITERATURE FOR CHILDREN, 3 cr.

Lib 471 ORGANIZATION OF LIBRARY MATERIALS, 3 cr.

Lib 472 REFERENCE MATERIALS, 3 cr.

Lib 473 LIBRARY AND CURRICULUM, 3 cr.

Lib 474 STORY TELLING AND READING GUIDANCE, 3 cr.

Lib 475 SCHOOL LIBRARY ADMINISTRATION, 3 cr.

INDUSTRIAL ARTS EDUCATION

IA Ed 355 CURRICULUM MAKING IN INDUSTRIAL ARTS, 2 cr.
Analysis of Industrial Arts objectives for curriculum content; emphasis by grade levels; criterion basis of content selection and appraisal; curriculum construction in selected areas.

Four class hours each week.

IA Ed 440 PRINCIPALS AND PRACTICES OF INDUSTRIAL ARTS, 3 cr.
A requirement for 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 cr.
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 major field. The student spends full time in actual classroom teaching for a trimester of 16 weeks.

IA Ed 451 PROFESSIONAL PRACTICE AND SCHOOL LAW, 2 cr.
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.

Two class hours each week.

SECONDARY EDUCATION

Sec Ed 301 PROBLEMS OF SECONDARY EDUCATION, 3 cr.
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 problem study using action research is a requirement of the course.

Prerequisite: Professional Orientation and Educational Psychology.

Three class hours each week.

Sec Ed 420 PRINCIPLES OF GUIDANCE, 3 cr.
The principal objective of this course is to develop an understanding of the principles of guidance with emphasis on basic concepts and procedures for guidance services in elementary and secondary schools. Tools and techniques of guidance services as well as the organization and administration of the guidance program are considered.

Three class hours each week.

Sec Ed 430 EDUCATIONAL TESTS AND MEASUREMENTS IN SECONDARY SCHOOLS, 3 cr.
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. Practice opportunities are offered for the construction of classroom tests in various subject-matter fields.

Three class hours each week.

Sec Ed 435 SCHOOL AND COMMUNITY, 3 cr.
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 cr.

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.

The techniques of teaching reading in the content area of English will be included. The prospective teacher will gain knowledge concerning general reading practices and specific reading skills necessary in his area of preparation.

Four class hours each week.

Sec Ed 441 TEACHING OF GEOGRAPHY AND EARTH SCIENCE IN SECONDARY SCHOOLS, 3 cr.

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.

The techniques of teaching reading in the content area of Geography will be included. The prospective teacher will gain knowledge concerning general reading practices and specific reading skills necessary in his area of preparation.

Prerequisite: 18 credits in geography and/or earth science.
Four class hours each week. Observations.

Sec Ed 442 TEACHING MATHEMATICS IN SECONDARY SCHOOLS, 3 cr.

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 is presented as well as sources of information. How to maintain a 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 lesson.

The techniques of teaching reading in the content area of Mathematics will be included. The prospective teacher will gain knowledge concerning general reading practices and specific reading skills necessary in his area of preparation.

Prerequisite: Mathematical Insights.
Four class hours each week.

Sec Ed 443 TEACHING MODERN LANGUAGE IN SECONDARY SCHOOLS, 3 cr.

Sec Ed 444 TEACHING OF SCIENCE IN SECONDARY SCHOOLS, 3 cr.

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.

The techniques of teaching reading in the content area of Science will be included. The prospective teacher will gain knowledge concerning general reading practices and specific reading skills necessary in his area of preparation.

Prerequisites: 12 hours of work in major field.
Four class hours each week.

Sec Ed 445 TEACHING OF SOCIAL STUDIES IN SECONDARY SCHOOLS, 3 cr.

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.

The techniques of teaching reading in the content area of Social Studies will be included. The prospective teacher will gain knowledge concerning general reading practices and specific reading skills necessary in his area of preparation.

Four class hours each week.

Sec Ed 446 TEACHING OF SPEECH IN SECONDARY SCHOOLS, 3 cr.

Problems in the selection of materials for courses of study, forensics, group discussions, assemblies, dramatics and correction and improvement programs on the secondary level. This study is planned to benefit students specializing in the teaching of oral English, speech and dramatics and those supervising extra-curricular activities in the speech field.

The techniques of teaching reading in the content area of Speech will be included. The prospective teacher will gain knowledge concerning general reading practices and specific reading skills necessary in his area of preparation.

Four class hours each week.

Sec Ed 450 STUDENT TEACHING, 12 cr.

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 2.0 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 cr.

Methods and practices of teaching. General techniques of teaching and techniques for the student's special fields. Pennsylvania school laws relevant to the work of the classroom teacher. Problems encountered by the students in their student teaching.

Two class hours each week.

Sec Ed 455 MODERN METHODS IN SECONDARY SCHOOLS, 3 cr.

An analysis of the functions of secondary education and of classroom problems, followed up by the presentation of techniques for the solution of such problems advocated by the more recent literature in the field.

Three class hours each week.

Sec Ed 460 READING IN THE SECONDARY SCHOOL, 3 cr.

Problems unique to the secondary teacher in the area of reading are included. Programs such as developmental reading, remedial reading, and reading in the content areas are considered. Students will develop a critique and oral report on some special area of interest in reading instruction.

Three class hours each week.

Sec Ed 461 DIAGNOSTIC AND REMEDIAL READING AT THE SECONDARY LEVEL, 3 cr.

Corrective techniques, methods, and materials to help pupils with reading difficulties. Emphasis upon diagnosis and remediation.

Three class hours each week.

Sec Ed 462 CLINICAL PRACTICE IN READING FOR SECONDARY SCHOOLS, 3 cr.

Opportunity to observe approved processes, and to practice under guidance the art of supervision. Special emphasis will be placed upon individualized instruction.

Six class hours each week.

Sec Ed 463 TEACHING OF READING IN THE SECONDARY ACADEMIC SUBJECTS, 2 cr.

ENGLISH DEPARTMENT

Dr. Coon, *Department Head*; Mr. Bloemker, Mr. Burnett, Mr. Cassidy, Mr. Gogoj, Mr. Grimes, Mr. Hughey, Mr. Limbacher, Mr. Maddock, Dr. Major, Mr. Martin, Mr. Newell, Miss Rakestraw, Mr. Rea, Mr. Rosenfeld, Dr. Reese, Mr. Watkins.

Eng 1 REMEDIAL ENGLISH, 0 cr.

For students whose preparation in English is inadequate.

Three class hours each week.

Eng 101 COMMUNICATION I, 5 cr.

A basic course, required of all students, in language, literature, and composition, both oral and written.

Five class hours each week.

Eng 102 COMMUNICATION II, 5 cr.

Continuation of Communication I, which is a prerequisite.

Five class hours each week.

Eng 105 ENGLISH COMPOSITION I, 3 cr.

That part of Communication I dealing with written communication (for students who have completed the other parts of that course elsewhere).

Three class hours each week.

Eng 106 ENGLISH COMPOSITION II, 3 cr.

That part of Communication II dealing with written communication (for students who have completed the other parts of that course elsewhere).

Three class hours each week.

Eng 110 CO-CURRICULAR ACTIVITIES — PUBLICATIONS

Eng 111 CO-CURRICULAR ACTIVITIES — PUBLICATIONS

Eng 112 CO-CURRICULAR ACTIVITIES — PUBLICATIONS

Eng 151 AMERICAN LITERATURE I, 3 cr.

An introductory survey, through 1865. May be taken before or after American Literature II, or independently of it.

Three class hours each week.

Eng 152 AMERICAN LITERATURE II, 3 cr.

An introductory survey, from 1865 to the present. May be taken before or after American Literature I, or independently of it.

Three class hours each week.

Eng 201 WORLD LITERATURE I, 2 cr.

Acquaints the student in some depth with a limited number of books that are at the same time masterpieces of literature and representative of the chief integral elements in world culture from the beginnings to 1400 A. D. Required of all students (English majors should take it in their Freshman year). Best taken concurrently with Social Studies 201: World Culture I, a complementary course also required of all students; may be taken either before or after English 202: World Literature II, or independently of it.

Two class hours each week.

Eng 202 WORLD LITERATURE II, 2 cr.

A continuation of World Literature I, from 1400 A. D. to the present. Required of all students (English majors should take it in their Freshman year). Best taken concurrently with Social Studies 202: World Culture II, a complementary course also required of all students; may be taken either before or after English 201: World Literature I, or independently of it.

Two class hours each week.

Eng 211 ENGLISH LITERATURE I, 3 cr.

An introductory survey, to 1798. May be taken before or after English Literature II, or independently of it.

Three class hours each week.

Eng 212 ENGLISH LITERATURE II, 3 cr.

An introductory survey, from 1798 to the present. May be taken before or after English Literature I, or independently of it.

Three class hours each week.

Eng 251 ENGLISH PHILOLOGY AND GRAMMAR, 3 cr.

The course attempts to give some knowledge of the history of English as a language and to acquaint the student with the use of the larger dictionaries. The main body of the course is concerned with a systematic study of grammar, with emphasis on its historical development and on its more functional aspects.

Three class hours each week.

Eng 252 ADVANCED COMPOSITION, 3 cr.

Advanced experience in writing is afforded through the preparation of reviews, digests, and critical reports, employing expository, descriptive and argumentative techniques.

Three class hours each week.

Eng 312 PRE-SHAKESPEAREAN LITERATURE, 3 cr.

The chief authors and literary works of England from the beginnings to the time of Shakespeare, with particular attention to Chaucer, Malory, and the development of drama.

Eng 323 SEVENTEENTH CENTURY LITERATURE, 3 cr.

Milton; metaphysical and other poets such as Donne, Marvell, Herbert; prose writers such as Browne, Walton, Pepys.

Three class hours each week.

Eng 329 EIGHTEENTH CENTURY LITERATURE, 3 cr.

A critical consideration of significant eighteenth-century writers with emphasis upon the struggle between tradition and revolt as reflected in the works of Pope, Johnson, Addison, Swift, Goldsmith, Burns, and other representative writers of the period.

Three class hours each week.

Eng 334 ELIZABETHAN LITERATURE, 3 cr.

A course in the prose, poetry, and drama (exclusive of Shakespeare) of the English Renaissance. Major writers include Spenser, Sidney, Marlowe, and Jonson.

Eng 335 THE ROMANTIC MOVEMENT, 3 cr.

A study of Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries, in the light of social background and biographical and critical doctrine.

Three class hours each week.

Eng 336 VICTORIAN LITERATURE, 3 cr.

Victorian culture is studied through its interpretations by poets and essayists of the period, with particular reference to the writings of Carlyle, Ruskin, Newman, Browning, Tennyson.

Three class hours each week.

Eng 341 THE NOVEL TO 1870, 3 cr.

The rise and development of the novel in English from its beginnings in the eighteenth century. A selected list of novels is assigned for analysis with a view to cultivating an appreciation of this dominant literary form.

Three class hours each week.

Eng 342 CONTEMPORARY NOVEL, 3 cr.

A study of modern and contemporary movements in fiction based on the critical reading and analysis of English and American novels published since 1870.

Three class hours each week.

Eng 351 THE SHORT STORY, 3 cr.

The development of the short story as a distinct and popular current literary form is traced through its history and technique. Recent tendencies are investigated and wide reading in current periodicals is encouraged.

Three class hours each week.

Eng 352 CREATIVE WRITING, 3 cr.

For students of marked ability in the creative processes of writing. The course aims to develop creative ability and improve the student's own style.

Three class hours each week.

Eng 362 CONTEMPORARY POETRY, 3 cr.

First of all a course in reading poetry, reading for pleasure and for understanding; finally a study of the origins of twentieth century poetry and its present day trends.

Three class hours each week.

Eng 372 MODERN DRAMA, 3 cr.

Study of the new dramatic literature of Europe and America and of its techniques, aims, and problems. Representative plays for reading and study from Ibsen and Shaw to T. S. Eliot and Arthur Miller. 12 to 15 plays.

Three class hours each week.

Eng 382 THE ESSAY, 3 cr.

Readings in American, British and Continental essayists along with the writing of an original essay.

Three class hours each week.

Eng 392 LITERATURE OF BIOGRAPHY, 3 cr.

Since biographical writings occupy a solid place among the monuments of literature and scholarship, the course will focus on biography as a literary form and as a discipline of literary and historical scholarship. Readings will be from the works of major biographers: Plutarch, Boswell, Carlyle, Macaulay, Josephson, Edel, and others.

Three class hours each week.

Eng 401 LITERARY CRITICISM, 3 cr.

A study of the history of literary criticism and an introduction to the practice of criticism. Best taken in seventh or eighth trimester.

Three class hours each week.

Eng 405 SHAKESPEARE, 3 cr.

Selected comedies, tragedies, and historical plays by Shakespeare, together with the social, historical, and literary background necessary for their full appreciation. Best taken in seventh or eighth trimester.

Three class hours each week.

Eng 490 HONORS COURSE IN ENGLISH, 3 cr.

Eng 491 HONORS COURSE IN ENGLISH, 3 cr.

Eng 492 HONORS COURSE IN ENGLISH, 3 cr.

Eng 495 SEMINAR IN ENGLISH, 1 cr.

GEOGRAPHY AND EARTH SCIENCE

Dr. Betz, *Department Head*; Mr. Brown, Mr. Kendall, Mr. Lind, Dr. Noble, Mr. Rampon.

Geo 100 WORLD GEOGRAPHY I, 3 cr.

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 land forms, climate, soils, vegetation, etc., are emphasized in relation to their influence on the economic and cultural activities of man.

Given every term.

Three class hours each week.

Geo 101 WORLD GEOGRAPHY II, 3 cr.

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.

Given all Fall and Spring Trimesters.
Prerequisite: World Geography I
Three class hours each week.

Geo 102 ECONOMIC GEOGRAPHY, 3 cr.

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.

Given Fall 1963, every other term thereafter.
Prerequisite: World Geography I
Three class hours each week.

Geo 151 PHYSICAL GEOLOGY, 4 cr.

A study of the materials, structures, surface features of the earth and processes which have produced them. Course work includes: study of rocks and minerals, topographic maps and models. Field trips are an integral part of the course.

Given Fall 1963, and every other term thereafter.
Prerequisite: Chemistry I or equivalent.
Three hours lecture and a two hour laboratory each week.

Geo 152 HISTORICAL GEOLOGY, 4 cr.

A study of the geologic history of the earth and the succession of the major groups of plants and animals as based on the geologic interpretation of rock formations and fossils. Field trips are an integral part of the course.

Given Spring 1964, and every other term thereafter.
Prerequisite: Physical Geology or permission of instructor.
Three hours lecture and a two hour laboratory each week.

Geo 157 DESCRIPTIVE ASTRONOMY, 3 cr.

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

Given every term as Physics 110 by the Science Department.
Three class hours each week.

Geo 202 COMMERICAL AND INDUSTRIAL GEOGRAPHY, 3 cr.

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.

Given Fall 1964, Spring 1966, Summer 1967.
Prerequisite: World Geography I
Three class hours each week.

Geo 203 TRADE AND TRANSPORTATION, 3 cr.

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

Not currently offered.
Prerequisites: World Geography I and Economic Geography.
Three class hours each week.

Geo 220 UNITED STATES AND PENNSYLVANIA, 3 cr.

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.

Given every term.
Prerequisite: World Geography I
Three class hours each week.

Geo 243 CONSERVATION OF NATURAL RESOURCES, 3 cr.

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

Given Summer 1964, Fall 1965, Spring 1967.

Prerequisite: World Geography I or permission of instructor.
Three class hours each week.

Geo 254 METEOROLOGY, 3 cr.

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.

Given Fall 1963, and every other term thereafter.

Prerequisite: World Geography I or permission of instructor.
Two hours lecture and a two hour laboratory each week.

Geo 255 CLIMATOLOGY, 3 cr.

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.

Given Spring 1964, Summer 1965 and Fall 1966.

Prerequisite: Meteorology or permission of instructor.
Three class hours each week.

Geo 261 PHYSIOGRAPHY, 3 cr.

The study of the history, origin, and characteristics of land forms produced by weathering, fluvial, glacial, wind, and wave erosion, or by a combination of these acting upon the major kinds of geologic materials and structures.

Not currently offered.

Prerequisite: Physical Geology or permission of instructor.
Two hours lecture and a two hour laboratory each week.

Geo 303 COMMERCIAL AIR TRANSPORTATION, 3 cr.

The geographic factors which have determined commercial air centers and routes. The effects of national and international controls are considered.

Not currently offered.

Prerequisite: World Geography I and Economic Geography.
Three class hours each week.

Geo 310 URBAN GEOGRAPHY, 3 cr.

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.

Given Fall 1964, Spring 1966, Summer 1967.

Prerequisite: World Geography I
Three class hours each week.

Geo 320 GEOGRAPHY OF UNITED STATES AND CANADA, 3 cr.

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.

Not currently offered.

Prerequisite: World Geography I
Three class hours each week.

Geo 322 GEOGRAPHY OF PENNSYLVANIA, 3 cr.

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

Given Summer 1964, Fall 1965, Spring 1967.

Prerequisite: World Geography I

Three class hours each week.

Geo 323 GEOGRAPHY OF LATIN AMERICA, 3 cr.

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.

Given every Spring Trimester.

Prerequisite: World Geography I

Three class hours each week.

Geo 325 GEOGRAPHY OF EUROPE, 3 cr.

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.

Given every Fall Trimester.

Prerequisite: World Geography I

Three class hours each week.

Geo 329 GEOGRAPHY OF ASIA, 3 cr.

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 province. The significance of these changes in world relations is stressed.

Given Spring 1964, Summer 1965, Fall 1966.

Prerequisite: World Geography I

Three class hours each week.

Geo 330 GEOGRAPHY OF THE SOVIET UNION, 3 cr.

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

Given Fall 1964, Spring 1966, Summer 1967.

Prerequisite: World Geography I

Three class hours each week.

Geo 331 GEOGRAPHY OF THE FAR EAST, 3 cr.

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

Not currently offered.

Prerequisite: World Geography I

Three class hours each week.

Geo 333 GEOGRAPHY OF AFRICA, 3 cr.

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.

Given Fall 1963, Spring 1965, Summer 1966.

Prerequisite: World Geography I

Three class hours each week.

Geo 334 GEOGRAPHY OF THE PACIFIC BASIN, 3 cr.

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

Not currently offered.

Prerequisite: World Geography I

Three class hours each week.

Geo 341 GEOGRAPHY INFLUENCES IN AMERICAN HISTORY, 3 cr.

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.

Given Spring 1964, Summer 1965, Fall 1966.

Prerequisites: World Geography I, Geography of the United States, History of the United States.

Three class hours each week.

Geo 342 WORLD PROBLEMS IN GEOGRAPHY, 3 cr.

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

Given Fall 1963, Spring 1965, Summer 1966.

Prerequisites: World Geography I, Economic Geography, and at least one regional course.

Three class hours each week.

Geo 358 OCEANOGRAPHY, 3 cr.

An introduction to the physical nature of the ocean, its topography and circulation. Chemical and physical nature of ocean water. Marine sedimentation. Biotic environments. Relation to biological, geographical, geologic and economic problems, including fisheries. Given Fall 1964 and every Fall Trimester thereafter.

Two hours lecture and a two-hour laboratory each week.

Geo 360 PHYSICAL GEOGRAPHY, 3 cr.

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.

Given every Spring Trimester.

Prerequisite: World Geography.

Three hours lecture each week plus field trips.

Geo 370 CARTOGRAPHY, 3 cr.

A non-technical laboratory course designed to develop competence in map use and evaluation. Compilation of maps from statistical, descriptive, and cartographic sources. Use and interpretation of globes, cartograms, and geographic/geologic diagrams, topographic maps, and aerial photographs. History of maps.

Given Spring 1964, every other term thereafter.

Prerequisite: Permission of instructor.

Two hours lecture and a two-hour laboratory each week.

Geo 401 SPECIAL PROBLEMS IN GEOGRAPHY OR EARTH SCIENCE I, 1 cr.

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

Given every term.

Prerequisite: Seminar and/or permission of staff.

Hours to be arranged.

Geo 402 SPECIAL PROBLEMS IN GEOGRAPHY OR EARTH SCIENCE II, 2 cr.

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

Given every term.

Prerequisite: Seminar and/or permission of staff.

Hours to be arranged.

Geo 403 SPECIAL PROBLEMS IN GEOGRAPHY OR EARTH SCIENCE III, 3 cr.

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

Given every term.

Prerequisite: Seminar and/or permission of staff.

Hours to be arranged.

Geo 420 SUMMER FIELD COURSE I, 1 cr.
Planned trips in summer sessions, during which lectures and discussions are conducted.

Open to all students.

Geo 421 SUMMER FIELD COURSE II, 2 cr.
Planned trips in summer sessions, during which lectures and discussions are conducted.

Open to all students.

Geo 422 SUMMER FIELD COURSE III, 3 cr.
Planned trips in summer sessions, during which lectures and discussions are conducted.

Open to all students.

Geo 430 FIELD METHODS IN GEOGRAPHY AND EARTH SCIENCE, 3 cr.
An intensive micro-geographic-geologic study through actual field work. An advanced course; permission of staff required for registration.

Given every Spring Trimester.

One hour lecture and four to eight hours field work each week.

Geo 490 HONORS COURSE IN GEOGRAPHY I, 3 cr.
Directed reading and research in field of interest chosen by student in consultation with the instructor.

Given every term.

Prerequisites: Provisions of the Honors Program of the college. Approval of staff of the department.

Weekly meeting with instructor to be arranged.

Geo 491 HONORS COURSE IN GEOGRAPHY II, 3 cr.
Continued, but individual, research on particular topic chosen from field of interest studied in Geography 490. Comprehensive oral and written examination by staff near close of this trimester.

Given every term.

Prerequisite: Geography 490

Weekly meeting with instructor to be arranged.

Geo 492 HONORS COURSE IN GEOGRAPHY III, 3 cr.
The writing of an undergraduate thesis based upon the work of Geography 490 and 491. Comprehensive oral examination by faculty near close of this trimester.

Given every term.

Prerequisite: Geography 491

Weekly meeting with instructor to be arranged.

Geo 495 SEMINAR IN GEOGRAPHY AND EARTH SCIENCE, 3 cr.
An introduction to the literature, philosophy, techniques, and research methods of geography and/or earth science.

Given Fall 1963, every other term thereafter.

Hours to be arranged.

HEALTH AND PHYSICAL EDUCATION DEPARTMENT

Mr. Hester, *Department Head*; Miss McConnell, Mr. Nemeth, Miss Nevin, Mr. Ross, Dr. Sweeney, Mr. Withey.

H & PE 101 PHYSICAL EDUCATION I — MEN, 1 cr.
The purpose is to help students attain a high degree of physical fitness and to grow in mental and emotional 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 102 PHYSICAL EDUCATION I — WOMEN, 1 cr.
The purpose is to help students attain a high degree of physical fitness and

to grow in mental and emotional 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 105 HEALTH — MEN, 2 cr.

Consideration is given to physical and mental equipment of the individual with the hope that practical application will be made in personal and community living.

Two class hours each week.

H & PE 106 HEALTH — WOMEN, 2 cr.

Consideration is given to physical and mental equipment of the individual with the hope that practical application will be made in personal and community living.

Two class hours each week.

H & PE 201 PHYSICAL EDUCATION II, — MEN, 1 cr.

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

Prerequisite: Physical Education I.

Two class hours each week.

H & PE 202 PHYSICAL EDUCATION II — WOMEN, 1 cr.

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

Prerequisite: Physical Education I.

Two class hours each week.

H & PE 301 PHYSICAL EDUCATION III — MEN, 1 cr.

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

Prerequisites: Physical Education I and II.

Two class hours each week.

H & PE 302 PHYSICAL EDUCATION III — WOMEN, 1 cr.

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

Prerequisites: Physical Education I and II.

Two class hours each week.

HIGHWAY SAFETY AND DRIVER EDUCATION

H Saf 301 DRIVER EDUCATION AND TRAFFIC SAFETY, 3 cr.

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 psycho-physical testing is required.

Three class and three practicum hours each week.

H Saf 302 INTRODUCTION TO SAFETY EDUCATION, 3 cr.

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, and 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 cr.

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 safely counselor, basic facts relating to accidents and hazards.

Three class hours each week.

H Saf 401 ORGANIZATION AND ADMINISTRATION OF SAFETY EDUCATION, 3 cr.

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 cr.

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

Two class and two practicum hours each week.

H Saf 403 PSYCHOLOGY OF ACCIDENT PREVENTION, 3 cr.

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.

INDUSTRIAL ARTS DEPARTMENT

Dr. Coover, *Director*; Mr. Anderson, Mr. Birch, Dr. Campbell, Mr. Charney, Mr. Dennis, Mr. Helsel, Mr. Hoover, Mr. Keightley, Mr. McCrory, Dr. Lebois, Mr. Sikora, Mr. Smoyer, Mr. Stavaski, Mr. Swearingen.

IA 100 FUNDAMENTALS OF WOOD, 4 cr.

Woodworking with the major emphasis upon hand tool operations, wood turning, jig-saw work and wood finishing. A variety of projects are constructed which may be used in a later teaching situation in the public schools. The planning process is demonstrated and used by the students in addition to a pupil personnel system both of which have a place in the Industrial Arts work.

Two demonstration and six laboratory hours each week.

IA 101 FUNDAMENTALS OF GRAPHIC ARTS, 4 cr.

A study of the many processes involved in the graphic arts. Major emphasis is placed on letterpress composition, platen press operation, additional study of ink, paper, printing plates, composing methods, history, and the importance of the industry.

Two demonstration and six laboratory hours each week.

IA 150 INTRODUCTORY MECHANICAL DRAWING, 2 cr.

Mechanical drawing with the major emphasis upon the theory of projection, blueprint reading, sketching, graphs, and charts, and basic forms of representation such as multi-view projection, auxiliary projection, sectioning, revolutions, dimensioning, isometric drawings and oblique drawings.

Four laboratory hours each week.

IA 151 GRAPHIC ARTS DESIGN, 2 cr.

Basic principles of printing layout and design are presented. The student is given an opportunity to develop skills by applying these principles through assigned drawings. This course is correlated with the Fundamentals of Graphic Arts course (IA 101).

Four laboratory hours each week.

IA 200 FUNDAMENTALS OF SHEETMETAL, 4 cr.

An introductory course giving instruction in layout, seaming, soldering, riveting, shaping, and forming light gauge metals. Emphasis is placed on the safe use and care of metalworking tools and equipment. Students gain experiences in project design and construction suitable for use in secondary schools. It is recommended that the student enroll for IA 250 along with this course.

Two demonstration and six laboratory hours each week.

IA 201 FUNDAMENTALS OF MACHINE SHOP, 4 cr.
Instruction in the operation of hand and machine tools, including the engine lathe, and in foundry and forge practice, including the heat treatment of steel.

Two demonstration and six laboratory hours each week.

IA 202 POWER MECHANICS, 4 cr.
The internal combustion engine, uses, types, construction, function, and theory. Disassemble, minor repair, and adjustment of component parts and assemblies of two and four cycle engines.

Two demonstration and six laboratory hours each week.

IA 250 SHEETMETAL DRAFTING, 2 cr.
Surface developments of prisms, conicals, and transition pieces are studied. Emphasis is placed on designing functional projects. Many of the full-size patterns the student draws are also used as construction problems in IA 200.

Prerequisite: IA 150.

Four laboratory hours each week.

IA 251 MACHINE DRAWING AND DESIGN, 2 cr.
Special emphasis upon American Standard drawing room practice in the development of mechanical engineering drawings, conventional representation, standardization of machine parts and fasteners, preparation of tracings, and the reproduction of industrial working drawings.

Prerequisite: Introductory Mechanical Drawing.

Four laboratory hours each week.

IA 300 FUNDAMENTALS OF ELECTRICITY-ELECTRONICS, 4 cr.
Laboratory experiences designed to acquaint the student with the basic tools, materials, and electrical phenomena basic to living in the industrial society. Student experiences include basic circuits fundamental to communications, home, automobile, and motors, as well as practice in the use of instruments.

Prerequisite: Completion of college I. A. physics and registration in IA 350.

Two demonstration and six laboratory hours each week.

IA 301 CERAMICS, 4 cr.
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 processes in clay. Originality in ceramic design, sensitivity to tools and materials and technical proficiency are stressed.

Two demonstration and six laboratory hours each week.

IA 302 ADVANCED WOODWORKING, 4 cr.
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.

Prerequisites: Fundamentals of Woodworking and Introductory Mechanical Drawing.

Two demonstration and six laboratory hours each week.

IA 303 CRAFTS, 4 cr.
An introduction to the Crafts is provided in this course. Creative craftwork is done in a variety of media such as clay, metal, wood, leather, 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 six laboratory hours each week.

IA 304 FUNDAMENTALS OF COLDMETAL, 4 cr.
Development and construction of ornamental iron projects, including lamps, candle holders, wood baskets, and other projects suitable for high school shops. The work includes both cold and hot forming.

Two demonstration and six laboratory hours each week.

IA 305 JEWELRY MAKING, 4 cr.

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 six laboratory hours each week.

IA 306 PLASTICS, 4 cr.

A general introduction to the history and development of plastics, with laboratory work in the designing and construction of plastic products.

Two demonstration and six laboratory hours each week.

IA 307 LEATHERCRAFT, 4 cr.

Such fundamentals leathercraft techniques as carving, skiving, tooling, finishing, sewing, and lacing of leather are taught. 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 six laboratory hours each week.

IA 308 FOUNDRY, 4 cr.

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 six laboratory hours each week.

IA 309 FUNDAMENTALS OF ART METAL, 4 cr.

The beginner is directed to develop his techniques systematically and to acquire a basic foundation in the art and science of metalcraft.

Two demonstration and six laboratory hours each week.

IA 310 ADVANCED ART METAL, 4 cr.

To provide experience in planning and development of jigs and fixtures; forging of stamping and chasing tools; making tools for die cutting and cutting dies. Practice with new techniques in metalworking. Organization of teaching materials and curriculum development.

Prerequisites: IA 200 and IA 309.

Two demonstration and six laboratory hours each week.

IA 311 FUNDAMENTALS OF PHOTOGRAPHY, 4 cr.

This course deals with the fundamental and advance 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 six laboratory hours each week.

IA 312 ADVANCED PLASTICS, 4 cr.

A study of new plastics and their uses. The designing of molds and forms for use in plastics. A study of molding problems and processes.

Prerequisite: IA 306

Two demonstration and six laboratory hours each week.

IA 350 ELECTRICAL DRAFTING AND THEORY, 2 cr.

Fundamental theory of electricity and electronics with emphasis on practical applications. Practice is given in the use of electrical measuring units and American Standard symbols as applied to electrical circuit diagrams.

Prerequisite: Knowledge of mathematics, completion of IA 150, and registration in IA 300.

Four laboratory hours each week.

IA 351 INDUSTRIAL ARTS DESIGN, 2 cr.

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 DRAWING, 2 cr.

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 SHOP PLANNING, 2 cr.

Experience is provided in all phases of modern industrial arts laboratory planning. The student proceeds through the entire sequence of shop 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 355 ADVANCED ARCHITECTURAL DRAFTING, 2 cr.

Provides broad experiences in general architectural design and drafting techniques. The functional approach to the design of residences and commercial buildings is stressed. New trends in architectural design and new drafting techniques are introduced.

Prerequisite: Architectural Drafting.

Four laboratory hours each week.

IA 400 FUNDAMENTALS OF ELECTRONICS, 4 cr.

Laboratory experiences in the use of electronic instruments; practical study of basic electronic circuits including power supplies, amplifiers, oscillators, to flip-flop; and studies of fundamental components including vacuum tubes and transistors.

Prerequisites: Completion of IA 300 and IA 350.

Two demonstration and six laboratory hours each week.

IA 401 PATTERNMAKING, 4 cr.

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.

Two demonstration and six laboratory hours each week.

IA 402 ADVANCED MACHINE SHOP, 4 cr.

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 404 ADVANCED GRAPHIC ARTS, 4 cr.

A continuation of IA 101 covering the organization of suitable shop equipment and teaching material, and providing experience in the study, selection and development of binding projects suitable for secondary schools.

Two demonstration and six laboratory hours each week.

IA 405 SPECIAL MACHINE SHOP, 4 cr.

Project work in machine shop practice. Admission only by consent of the instructor.

Two demonstration and six laboratory hours each week.

IA 406 ADVANCED ELECTRICITY, 4 cr.

Laboratory experiences in electrical power. Practice is provided with advanced instrumentation distribution circuits, motors and motor control, and transformer design. Students design, construct, and test a practical transformer.

Prerequisites: Completion of IA 300 and IA 350.

Two demonstration and six laboratory hours each week.

IA 408 ADVANCED SHEETMETAL SHOP, 4 cr.

To provide practice in development and construction of advanced projects, e.g., equipment and projects for school shop use. Study of sheetmetal trade and industrial practices. Organization of teaching materials and curriculum development.

Prerequisite: Shop 21.

Two demonstration and six laboratory hours each week.

IA 409 OFFSET - LITHOGRAPHY, 4 cr.

An introduction to the basic principles 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.

Two demonstration and six laboratory hours each week.

IA 410 FUNDAMENTALS OF AUTO MECHANICS, 4 cr.

Credit is given for work taken at General Motors Institute.

IA 411 ADVANCED AUTO MECHANICS, 4 cr.

Credit is given for work taken at General Motors Institute.

IA 412 SPECIAL AUTO MECHANICS, 4 cr.

Credit is given for work taken at General Motors Institute.

IA 460 ADVANCED GRAPHIC ARTS DESIGN.

Designing and preparing teaching materials as used in Advanced Graphic Arts through the study and use of various media in preparing of illustrative material for publication.

Two laboratory hours each week.

IA 461 ADVANCED MECHANICAL DRAWING, 2 cr.

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.

Four laboratory hours each week.

IA 470 CLINICAL OBSERVATION AND PRACTICE IN MANUAL ARTS

THERAPY IN EDUCATIONAL THERAPY, 6 cr.

This course is designed to provide training (through Hospital staff lectures and practical clinical experience) in Manual Arts, Industrial Therapy, and Educational Therapy, as it is integrated in the Physical Medicine and Rehabilitation program of a hospital. As a phase of the professional educational requirements, which includes student teaching, an intensive six-week course is offered under the auspices of the professional staff at the Leech Farm Veterans Administration Hospital in Pittsburgh. Open to Juniors, Seniors, and Graduate Students in all curriculums. This course is offered as part of student teaching and also as part of the college summer school program.

IA 490 HONORS COURSE IN INDUSTRIAL ARTS I, 4 cr.

Individual study and research in the woodworking area.

Prerequisite: Advanced Woodworking.

IA 491 HONORS COURSE IN INDUSTRIAL ARTS II, 4 cr.

Individual study and research in the metalworking area.

Prerequisites: Fundamentals of Machine Shop and Advanced Machine Shop.

IA 492 HONORS COURSE IN INDUSTRIAL ARTS III, 4 cr.

Individual study and research in the graphic arts area.

Prerequisites: Fundamentals of Graphic Arts. Advanced Graphic Arts.

IA 495 SEMINAR IN INDUSTRIAL ARTS, 1 cr.

MATHEMATICS DEPARTMENT

Mr. Monroe, *Department Head*; Mr. Atkins, Mr. Bethem, Mr. Beyer, Mr. Dunbar, Mr. Fernandes, Mr. Novak, Mr. Sapko, Dr. Thomas.

Math 101 FUNDAMENTALS OF MATHEMATICS, 3 cr.

Development of the number system; nature and application of fundamental processes; extension of the number system to include common and decimal fractions and negative numbers; approximate nature of measurements; percents; language of algebra including formulas, graphs, tables, and equations; meaning of proof; elementary concepts of statistics; art of indirect measurement; history of number systems, number line, inequalities, basic set notation, general principles of geometry.

Three class hours each week.

Math 102 COLLEGE ALGEBRA, 3 cr.

Fundamental operations; factoring; fractions; functions and their graphs, linear, quadratic, and systems of equations; proportions and variation; progressions; mathematical induction; determinants; equivalence relations; postulates of addition and multiplication (closure, associative, commutative, distributive, identity, and inverse).

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

Three class hours each week.

Math 103 COLLEGE TRIGONOMETRY, 3 cr.

Functions of an angle; logarithms; use of tables; radians; identities; trigonometric and exponential equations; solution of triangles by natural functions and logarithms; inverse functions; complex numbers; application in practical problems.

Prerequisite: College Algebra.

Three class hours each week.

Math 104 ANALYTIC GEOMETRY, 3 cr.

Correlation of algebra and geometry in finding equations of loci and loci corresponding to certain equations; properties of the straight line, the circle and conic sections; rectangular and polar coordinates; transformation of coordinates; parametric equations; a brief introduction to three dimensions.

Prerequisites: College Algebra and Trigonometry; students presenting evidence of proficiency may take electives for six credits in place of algebra and trigonometry.

Three class hours each week.

Math 105 CALCULUS I - DIFFERENTIAL, 3 cr.

Elementary concepts of limits; the derivative applications of the derivative to maxima and minima, rates, velocity, acceleration.

Prerequisite: Analytic Geometry.

Three class hours each week.

Math 106 GEOMETRY I, 3 cr.

Professionalized subject matter background for teachers of secondary school plane geometry; completes a restudy of Euclidean Geometry filling in gaps that exist. The emphasis here is placed in greater rigor in proofs. The approach used is that presented by Hilbert. Topics included are: the nature of defined and undefined terms, the use of postulates, the nature of a proof, logical proofs, constructions, and sets. The course includes work in both two and three dimensional geometry.

Three class hours each week.

Math 201 CALCULUS II - INTEGRAL, 3 cr.

Integration as the inverse of differentiation; formulas of intergration; the definite integral; methods of integration; integration as the limit of a sum applied to areas, volumes, lengths of curves and other practical problems. Differential and Integral Calculus may be taught as a unified course.

Prerequisite: Calculus I.

Three class hours each week.

Math 202 CALCULUS III, 3 cr.

Continuation of studies begun in Calculus I and Calculus II, extension of concepts of differentials, and integration, problems taken from the physical sciences; Rolle's Theorem of Mean Value, Indeterminate forms, emphasis on proofs and applications; curvature; series and expansion of functions; hyperbolic functions; partial derivatives and applications; mutple integrations and problems involving them.

Prerequisite. Calculus II.

Three class hours each week.

Math 203 GEOMETRY II, 3 cr.

Topics of axiomatic geometry; selected topics of Euclidean Geometry such as theorems of Memelaus and Ceva; Harmonic elements and cross-ratio; an introduction to synthetic and analytic projective geometry; concepts of Non-Euclidean Geometries.

Prerequisite: Geometry I.

Three class hours each week.

Math 204 ABSTRACT ALGEBRA, 3 cr.

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

Prerequisite: Calculus I.

Three class hours each week.

Math 205 FIELD WORK IN MATHEMATICS, 3 cr.

Use of various instruments including the transit, slide rule, plane table, level sextant, E6B computer, hypsometer, angle mirror, planimeter, computing machines and other measuring instruments. Student projects making use of the various instruments.

Prerequisite: College Trigonometry.

Three class hours each week.

Math 302 THEORY OF EQUATIONS, 3 cr.

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

Prerequisite: Calculus II.

Three class hours each week.

Math 303 DIFFERENTIAL EQUATIONS, 3 cr.

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: Calculus II.

Three class hours each week.

Math 304 STATISTICS, 3 cr.

Basic principles and methods of statistics common to scientific research; probability theory, measures of central tendency; binomial distribution, normal curve; reliability of statistical measures; statistical inference, confidence limits, Bayes Theorem.

Prerequisite: College Algebra.

Three class hours each week.

Math 390 MATHEMATICAL INSIGHTS, 3 cr.

Language; symbols; compound statements; arguments and proofs; an introduction to the theory of sets; connection between the structure of sets and the structure of compound statements and arguments.

Prerequisite: Calculus II.

Three class hours each week.

Math 401 ADVANCED CALCULUS I, 3 cr.

Elementary differential and integral calculus of functions and transformations from a more rigorous point-set topology point of view. This course is primarily for those who will continue with graduate work in mathematics.

Prerequisites: Calculus III and Differential Equations.

Three class hours each week.

Math 402 ADVANCED CALCULUS II, 3 cr.

Continuation of Advanced Calculus I.

Prerequisite: Advanced Calculus I.

Three class hours each week.

Math 420 MATHEMATICS OF FINANCE, 3 cr.

The algebraic approach to topics of money, interest, discount, annuities, insurance and related subjects.

Math 490 HONORS COURSE IN MATHEMATICS, 3 cr.

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 of 3.25 in all work, recommendation of the mathematics faculty, approval of the Department Head and the Dean of Instruction.

Math 491 HONORS COURSE IN MATHEMATICS, 3 cr.

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 of 3.25 in all work, recommendation of the mathematics faculty, approval of the Department Head and the Dean of Instruction.

Math 492 HONORS COURSE IN MATHEMATICS, 3 cr.

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 of 3.25 in all work, recommendation of the mathematics faculty, approval of the Department Head and the Dean of Instruction.

Math 495 SEMINAR IN MATHEMATICS.

MODERN LANGUAGE

Dr. Halley, Mr. Long, Dr. Marisa, Mrs. Leyte-Vidal.

Mod Lang 490 HONORS COURSE IN MODERN LANGUAGE

Mod Lang 491 HONORS COURSE IN MODERN LANGUAGE

Mod Lang 492 HONORS COURSE IN MODERN LANGUAGE

Mod Lang 495 SEMINAR IN MODERN LANGUAGE

FRENCH

Fr 101 ELEMENTARY FRENCH I, 3 cr.

For the student without previous knowledge of French who wishes to achieve a sound basis for an active command of the language. This course is devoted to aural — oral adaptation in the language laboratory and to the study of fundamental speech patterns. Progressively greater emphasis is placed on correct grammar, writing and reading.

Not open to students who have had secondary school French.

Prerequisites: None.

Three class hours each week.

Fr 102 ELEMENTARY FRENCH II, 3 cr.

A continuation of Elementary French A for students who wish to increase their oral comprehension and their reading skill. There will be a review of the fundamentals of French grammar, combined with extensive readings in literary and cultural texts.

Prerequisite: Open to all students who have passed French I or have had one year of secondary school preparation.

Three class hours each week.

Fr 103 INTERMEDIATE FRENCH I, 3 cr.

(French Grammar and prose reading). For students who have completed courses A and B or two years of secondary school French. This course develops aural — oral skills and increases the command of written French. Review and practice will be functional, combined with outside readings. Conducted largely in French.

Prerequisites: French A and B.

Three class hours each week.

Fr. 104 INTERMEDIATE FRENCH II, 3 cr.

(Conversation, Composition, and Reading). For students who are interested primarily in achieving fluency in speech and writing. The course is conducted, to a great extent, in French. After a short review of formal grammar selected literary texts will be read and discussed.

Prerequisite: Course 103 or equivalent.

Three class hours each week.

Fr 201 FRENCH CULTURE AND CIVILIZATION I, 3 cr.

The purpose of this course is to study French culture and literature from the Middle Ages to the Twentieth Century. Selected literary works will be analyzed and discussed in French and in English.

Prerequisite: An ability to understand spoken French and to read with ease.

Three class hours each week.

Fr. 202 FRENCH CULTURE AND CIVILIZATION II, 3 cr.

This is a continuation of French 201. More and more French will be introduced into discussions of French Culture and works of literature. Occasionally, conversation will be held on current events in French.

Prerequisite: French 201.

Three class hours each week.

Fr 301 FRENCH LITERATURE I, 3 cr.

Conducted largely in French. A history of the origins of modern ideas in scepticism and free thought. Subject matter will include works of Descartes, Corneille, Pascal, Moliere, La Fontaine, Racine and other classical writers.

Prerequisite: Pass oral proficiency examination.

Three class hours each week.

Fr 302 FRENCH LITERATURE II, 3 cr.

A study of eighteenth century thought from its origins through the French Revolution. Life and works of Rousseau, Voltaire, Diderot, the women of the literary salons, and their influence in French History.

Three class hours each week.

Fr 401 READINGS IN CONTEMPORARY FRENCH LITERATURE, 3 cr.

Themes and techniques in fiction from the romantic period through Malraux and Bernanos. A close study of Flaubert's "Madame Bovary" will be made for social background. Conducted in French.

Three class hours each week.

Fr 402 HISTORY OF FRENCH LITERATURE, 3 cr.

This course will consist of class reading and analysis of works of leading French authors and literary critics.

Three class hours each week.

Fr 461 FIELD WORK IN FRENCH STUDIES, 3 cr.

Fr 462 FIELD WORK IN FRENCH STUDIES, 3 cr.

GERMAN

Gr 101 ELEMENTARY GERMAN I, 3 cr.

This course is intended for those who have had no previous instruction in German. Its purpose is to give basic instruction in the four goals of understanding, speaking, reading, and writing. Emphasis is placed upon speaking, but a sufficient outline of grammar for this level is also provided.

Three class hours each week.

Gr 102 ELEMENTARY GERMAN II, 3 cr.

This course is a continuation of Elementary German I, but it contains more reading, and the speaking is more advanced.

Three class hours each week.

Gr 103 INTERMEDIATE GERMAN I, 3 cr.

This course is intended for those who have had German 102, or two years of high school German, or the equivalent. The goals are understanding, speaking, reading, and writing on a more advanced level. There is a review of the structural principles covered in German 101 and 102, and additional grammatical material, idioms, etc., are presented. There is more emphasis laid upon reading and speaking.

Three class hours each week.

Gr 104 INTERMEDIATE GERMAN II, 3 cr.

This course is a continuation of Gr 103, but there is more speaking, reading, and writing, and less grammar.

Three class hours each week.

Gr 201 GERMAN CULTURE AND CIVILIZATION I, 3 cr.

This course is a study of German literature with particular reference to the German people and their geographical, historical, economic, and political background; to their art and folklore.

Three class hours each week.

Gr 202 GERMAN CULTURE AND CIVILIZATION II, 3 cr.

This course is a continuation of German 201.

Three class hours each week.

Gr 205 GERMAN CONVERSATION AND COMPOSITION I, 3 cr.

This course devotes all its attention to the further development of the knowledge of and skill in conversation and composition, based upon a relatively small amount of reading which is particularly adapted to this purpose.

Three class hours each week.

Gr 206 ADVANCED CONVERSATION AND COMPOSITION II, 3 cr.

This course is a continuation of German 205 and is conducted on a more advanced level.

Three class hours each week.

Gr 401 CONTEMPORARY GERMAN LITERATURE I, 3 cr.

This course contains readings from representative poets, dramatists, novelists, short story writers, and essayists of the twentieth century. Particular attention is given to trends in thought, literary analysis, and the social and political scene. Discussions are held in German.

Three class hours each week.

Gr 402 CONTEMPORARY GERMAN LITERATURE II, 3 cr.

This course consists of readings from contemporary newspapers and periodicals. Discussions in German are held with reference to the reading matter and the contemporary scene in Germany.

Three class hours each week.

Gr 412 HISTORY OF GERMANY

This course contains readings and discussions in German of the history of the country.

Three class hours each week.

Gr 461 FIELD WORK IN GERMAN STUDIES I, 3 cr.

Gr 462 FIELD WORK IN GERMAN STUDIES II, 3 cr.

RUSSIAN

Rus 101 ELEMENTARY RUSSIAN I

Rus 102 ELEMENTARY RUSSIAN II

Rus 103 INTERMEDIATE RUSSIAN I

Rus 104 INTERMEDIATE RUSSIAN II

Rus 201 RUSSIAN CULTURE AND CIVILIZATION I

Rus 202 RUSSIAN CULTURE AND CIVILIZATION II

Rus 301 RUSSIAN LITERATURE I

Rus 302 RUSSIAN LITERATURE II

Rus 401 READINGS IN CONTEMPORARY RUSSIAN LITERATURE

Rus 402 RUSSIAN HISTORY

SPANISH

Span 101 ELEMENTARY SPANISH I, 3 cr.

Oral Spanish. Laboratory practice is compulsory.

Three class hours and one laboratory hour each week.

Span 102 ELEMENTARY SPANISH II, 3 cr.

Practical and theoretical Spanish. Laboratory practice is compulsory. (Students without an adequate background of two years of high school Spanish will be required to complete Elementary Spanish I and II. These credits will be counted toward the area of specialization.) Both courses can be taken simultaneously for those specializing in Spanish.

Three class hours and one laboratory hour each week.

Span 103 INTERMEDIATE SPANISH I, 3 cr.

Grammar and conversational Spanish. Laboratory practice is compulsory.

Three class hours and one laboratory hour each week.

Span 200 ADVANCED SPANISH I, 3 cr.

Continuation of Spanish grammar and conversational Spanish. Laboratory practice is compulsory. Successful completion of previous course is prerequisite.

Three class hours and one laboratory hour each week.

Span 201 ADVANCED SPANISH II, 3 cr.

Continuation of Spanish grammar and conversational Spanish. Laboratory practice is compulsory.

Three class hours and one laboratory hour each week.

Span 202 HISTORY OF SPAIN AND HISPANIC AMERICA, 3 cr.
History of Spain and Hispanic America. Understanding and speaking Spanish and a knowledge of Spanish grammar are prerequisites.

Three class hours each week.

Span 301 CULTURE AND CIVILIZATION OF SPAIN AND HISPANIC AMERICA, 3 cr.

Elements of Spanish and Hispanic American culture and civilization. Understanding and speaking Spanish and a knowledge of Spanish grammar are prerequisites.

Three class hours each week.

Span 302 LITERATURE OF SPAIN, 3 cr.

Masterpieces of Spanish literature of different eras. A knowledge of Spanish culture and civilization is prerequisite.

Three class hours each week.

Span 401 LITERATURE OF HISPANIC AMERICA, 3 cr.

Panoramic view of Hispanic American literature. A knowledge of Hispanic American culture and civilization is prerequisite.

Three class hours each week.

Span 402 READING IN HISPANIC AMERICAN LITERATURE, 3 cr.

Continuation of reading in Hispanic American literature.

Three class hours each week.

PHILOSOPHY

Dr. Lackner, Mr. Walsh.

Phil 401 INTRODUCTION TO PHILOSOPHY, 3 cr.

This course is an introduction to the great problems of philosophy as exemplified in the pre-Socratics: Plato, Aristotle, Augustine, Aquinas, Descartes, Kant, Bergson, and others. The student is provided with the opportunity of re-living and re-thinking the ideas of the great philosophers of Western civilization. A requirement is one or more term papers which demonstrate proficiency in analyzing a train of thought.

Three class hours each week.

Phil 402 MODERN PHILOSOPHY-DESCARTES TO KANT, 3 cr.

The course will 1. familiarize the student with some of the basic writings of men such as Descartes, Locke, Berkeley, Hume, Hobbes, and Kant; 2. help the student develop an over-all view of this philosophic end; 3. terminate in a critical evaluation of the period in terms of more recent developments in philosophy.

Three class hours each week.

Phil 403 CONTEMPORARY PHILOSOPHY, 3 cr.

It is assumed that the student who takes the course is interested in discovering what philosophers historically "close to him" have said or are saying. It is expected that he will develop some insight into the interaction now taking place between philosophy and culture, in general, and that his reading and research in such men as Ayer, Ryle, Heidegger, Kierkegaard and Dostoyesky will culminate in an acceptable term paper.

Prerequisite: Introduction to Philosophy.

Three class hours each week.

Phil 405 LOGIC, 3 cr.

The course is a study of "the methods and principles used in distinguishing correct from incorrect arguments." (Copi) The first part consists of a discussion of logical symbols and de-emotionalized language. The second part is devoted to deduction. The third part is devoted to induction and the scientific method. The course also includes a discussion of informal fallacies and the value and limitations of logic.

Three class hours each week.

Phil 410 PLATO AND ARISTOTLE, 3 cr.

The course is designed to (1) diversify and yet intensify the student's knowledge of philosophy, (2) to help him see the interaction between Greek philosophy and culture and (3) the relationship between our own culture and that of the Greeks. The student will be given the opportunity to read significant selections from each man and encourage to read relevant and established secondary sources. It is expected that the student's reading and research will be incorporated in the form of a term paper.

Prerequisite: Introduction to Philosophy.
Three class hours each week.

Phil 415 EPISTEMOLOGY, 3 cr.

In this course will be discussed the theories of knowledge of the more important Greek, Medieval, Modern and Contemporary philosophers. It will include analysis of the epistemological position of such men as Plato, Aristotle, Boethius, Aquinas, Descartes, Locke, Berkeley, Hume, Kant, Hegel, Bergson and Heidegger. The course will also include a discussion of the notion that epistemology can be a starting point for philosophy by way of critical analysis.

Prerequisite: Introduction to Philosophy.
Three class hours each week.

Phil 420 HISTORY AND PHILOSOPHY OF SCIENCE, 3 cr.

Phil 430 ETHICS, 3 cr.

This course will examine the major ethical systems of western civilization. The student will be required to analyze the philosophical foundations of these ethical systems, so that he will be able to judge for himself the merits of the ethical point of view represented by each system studied.

Prerequisite: Introduction to Philosophy.
Three class hours each week.

PSYCHOLOGY

Psy 101 GENERAL PSYCHOLOGY, 3 cr.

A study of the psychological factors which determine human behavior.
Three class hours each week.

Psy 201 EDUCATIONAL PSYCHOLOGY, 3 cr.

The nature of the learning process with emphasis on the application of the principles of psychology to the problems of learning and 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.

Prerequisite: General Psychology.
Three class hours each week.

Psy 301 PSYCHOLOGY OF ADOLESCENCE, 3 cr.

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.
Three class hours each week.

Psy 302 PSYCHOLOGY OF EXCEPTIONAL CHILDREN, 3 cr.

The problems of exceptional or atypical children. The major purpose is to gain a functional understanding of the various types of psychological and physical deviates, both as to the genesis of their behavior processes, their treatment, and the guiding principles involved in their training.

Prerequisite: General Psychology.
Three class hours each week.

Psy 310 MENTAL HYGIENE, 3 cr.

Problems of personality and mechanisms of adjustment, including a study of the origin and resolution of conflicts, and the role of emotion in the pattern of behavior are studied.

Prerequisite: General Psychology.

Three class hours each week.

Psy 401 ABNORMAL PSYCHOLOGY, 3 cr.

Psy 410 CLINICAL PSYCHOLOGY, 3 cr.

Use of the case method of studying children; observation of and experience with the individual testing of mentality, vision, hearing, motor speed, coordination, and other capacities. Enrollment is limited to small groups.

Three class hours each week.

Psy 411 PRACTICUM IN PSYCHOLOGY, varying cr.

Case studies, practice in the giving, scoring, and interpretation of mental tests, the making of personal inventories, and the use of clinical instruments. One trimester of credit is allowed for each fifty hours of work satisfactorily completed. Maximum credit: six trimester hours. Open only to students who have the proper prerequisites and to graduate students specializing in psychological work. Admission by consent of the Director of the Clinic and the Dean of Instruction.

SCIENCE DEPARTMENT

Mr. John Lewis, *Department Head*; Dr. Anderson, Mr. Bailey, Dr. Bausor, Mr. Buell, Mr. Craig, Mr. Fleming, Mr. Hartman, Dr. Lister, Mr. Matzen, Mr. McCloskey, Mr. Petrick, Mr. Sepsi, Dr. Serene, Mr. Serinko, Mr. Snyder, Mr. Walker, Mr. Zadorozny, Mr. Zoppetti.

Sci 101 MAN AND HIS BIOLOGICAL WORLD, 5 cr.

This course deals with the functional principles of Biology. Concepts treated include dependence upon physical surroundings; food getting; assimilation; growth; maintenance of kind; classification; reaction, adaptation, and constant adjustment to environment, and the use, improvement, and conservation of living things.

Five class hours each week.

Sci 111 MAN AND HIS PHYSICAL WORLD, 5 cr.

A broad, survey-type, non-laboratory course devoted to the fields of physics, chemistry and astronomy and their related branches. Besides lecture-recitation methods, motion pictures, demonstration experiments, oral reports and other activities of a research or audio-visual project type are used.

Five class hours each week.

Sci 357 LABORATORY SCIENCE FOR TEACHERS, 3 cr.

Sci 413 WORKSHOP IN SCIENCE, 3 cr.

Sci 414 FIELD SCIENCE FOR TEACHERS, 3 cr.

Sci 490 HONORS COURSE IN SCIENCE, 3 cr.

Sci 491 HONORS COURSE IN SCIENCE, 3 cr.

Sci 492 HONORS COURSE IN SCIENCE, 3 cr.

BIOLOGY

Biol 101 GENERAL BIOLOGY, 4 cr.

A beginning course dealing with basic concepts of Biology. Dependence upon physical surroundings, food getting, assimilation, growth and maintenance of kind are studied.

Three class and one three hour laboratory each week.

Biol 102 GENERAL BIOLOGY, 4 cr.

A continuation of Biology 101. Classification, reaction, adaptation and constant adjustment to environment, the use and improvement of living things and man's need to conserve living things and their related natural resources are studied.

Three class and one three hour laboratory each week.

Biol 111 BOTANY I - FLOWERING PLANTS, 4 cr.

Botany I is a study chiefly of the flowering plants. Topics include classification, anatomy, and life processes of cells, roots, stems, leaves, flowers, fruits, seeds, and seedlings of selected plants.

Three class and one three hour laboratory each week.

Biol 112 BOTANY II - NON-FLOWERING PLANTS, 4 cr.

A survey of the algae, fungi, bryophytes, pteridophytes and gymnosperms with special emphasis on possible evolutionary relationship. Regressive details of structure and function are considered.

Three class and one three hour laboratory each week.

Biol 121 ZOOLOGY I - INVERTEBRATES, 4 cr.

An elementary course in animal biology emphasizing the invertebrates. Included is morphology, physiology, life history, and inter-relationships of the various phyla. Emphasis is given to those forms of special economic importance and with health implications to man. The course is designed for freshmen and sophomores. It should precede Zoology II.

Three class and one three hour laboratory each week.

Biol 122 ZOOLOGY II - VERTEBRATE, 4 cr.

An elementary course in animal biology with emphasis on the vertebrates. Topics include anatomy, physiology, origin, development, and life history of representative animals. Special attention is given to the systems of organs of selected animals, and their functioning. The course is designed for freshmen and sophomores. It should follow Zoology I.

Three class and one three hour laboratory each week.

Biol 201 VERTEBRATE ANATOMY, 3 cr.

This course deals with the fundamental organ systems of vertebrates as they apply to the cat. Comparisons are made with the organ systems of other chordates.

Prerequisite: Zoology II or consent of the instructor.

Two class and one three hour laboratory each week.

Biol 221 PHYSIOLOGY, 3 cr.

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

Prerequisite: Zoology II. It is strongly recommended that

Comparative Anatomy and Chemistry precede enrollment in Physiology.

Two class and one three hour laboratory each week.

Biol 240 FIELD BOTANY (LOCAL FLORA), 3 cr.

A study of the identification and classification of the ferns and flowering plants of Southwestern Pennsylvania.

Prerequisite: Botany I or the consent of the instructor.

Two class and three laboratory or field hours each week.

Biol 301 MICROBIOLOGY, 3 cr.

An introduction to the study of microorganisms. Culture, morphology, identification and control of bacteria are emphasized. Some attention is given to the yeasts and the fungi. The role of microorganisms in nature and in industry is considered. Special attention is given to microorganisms of importance to health and sanitation.

Prerequisites: Botany I and II, Zoology I and II, Chemistry

I and II. Open to qualified juniors and seniors. Consent of instructor is required for any one lacking prerequisites.

Two class and one three hour laboratory each week.

Biol 321 GENETICS, 3 cr.

The purpose of this course is to give the student an understanding of the laws of inheritance as they operate in plants, animals, and humans. Cell structure, Mendelian inheritance, Eugenics, linkage, probability, crossing over, and random assortment are all considered.

Prerequisite: Six hours Biology.

Two class and one three hour laboratory each week.

Biol 331 ORGANIC EVOLUTION, 3 cr.

An intensive study of the history of the evolutionary theory and its impact upon the various disciplines of biology. The ideologies of the opposing schools of thought of modern evolutionists are considered. The significance of the evolutionary doctrine to the present concept of species and races is emphasized. This course is designed for mature students, preferably upperclassmen, and is especially recommended for biology majors, and social science majors with an interest in anthropology.

Three class periods each week.

Biol 360 FIELD ZOOLOGY, 3 cr.

Designed to acquaint students with the varied equipment and materials utilized in collecting, mounting, and preserving zoological specimens; to give them varied field experiences in the utilization of such equipment; to give them the opportunity to make a personal collection to the familiar forms of animal life of this region; and to give them practice in the identification and study of these familiar forms.

Two class and three laboratory or field hours each week.

Biol 361 ORNITHOLOGY, 3 cr.

An introduction to the birds of Pennsylvania with special emphasis upon their identification in the field. Abundant field work gives practice in recognition by plumage, song, form, and behavior. Lectures deal with classification, migration, distribution, habitat preferences, song, courtship, nesting and rearing young, plumage changes, and economic importance. Open to any student.

Two class and three laboratory or field hours each week.

Biol 362 ENTOMOLOGY, 3 cr.

An introductory course to the study of insects. Insect structure, life history, physiology, and economic importance are considered. An intensive study is made of the major orders and the most important minor orders found in our locality. Field work is required.

Prerequisite: Zoology I.

Two class and three laboratory or field hours each week.

Biol 401 BIOTIC PRINCIPLES, 5 cr.

A comprehensive terminal course open only to biology majors. Taken preferably the trimester immediately preceding student teaching. The aim is to summarize and correlate the various phases of undergraduate biology, and to help the student gain a well formed concept of the life sciences.

Five class hours each week.

Biol 410 GENERAL EMBRYOLOGY, 3 cr.

A study of the nature of development of living things. Studies deal with processes of germ cell formation and fertilization. Comparative embryological development of amphioxus, the lamprey, the dogfish shark, the frog, the chick, the pig and the human fetus.

Prerequisite: Vertebrate Anatomy.

Two class and one three laboratory each week.

Biol 415 ANIMAL HISTOLOGY, 3 cr.

The microanatomy of selected animal tissues and organs. Includes practice in the preparation and microscopic examination of materials.

Two class and one three hour laboratory each week.

Biol 420 ECOLOGY, 3 cr.

This is a study of plants and animals in relation to their physical and biological environments. Concepts include migration, invasion, competition, climax, and post-succession. Considerable attention is given to plant and animal communities of Pennsylvania. Individual problems may be assigned. Since this is a terminal course in Biology, consent of the instructor is required before electing it.

Two class and three laboratory or field hours each week.

Biol 421 CONSERVATION OF BIOLOGICAL RESOURCES, 3 cr.

This is a study of the basic principles of conservation as they affect Man. The concepts taught include the historical background of the conservation movement, and the problems of water, soils, food-producing lands, forests, wildlife, minerals, areas of special use, and land-use planning. Special emphasis is placed upon conservation as it affects the individual in society.

Two class and three laboratory or field hours each week.

Biol 430 RADIATION BIOLOGY, 2 cr.

Deals rigorously with the Biophysical Processes involved in the Absorption of Radiation by living systems. Includes physiochemical production of radiation and nature of fundamental particles. Provides necessary background for special certification in Adult Education. Offered to all science majors on senior year level.

CHEMISTRY

Chem 101 GENERAL CHEMISTRY I, 4 cr.

The course includes a chemical study of the structure and behavior of matter. Topics stressed the first trimester include atomic structure and valence, equation and formula writing, the periodic table, the gas laws, oxidation and reduction, solutions, ionization stoichiometry.

Three lecture hours and three laboratory hours each week.

Chem 102 GENERAL CHEMISTRY II, 4 cr.

Includes the fundamental ideas concerning the common metals and non-metals, and introduction to radioactivity and nuclear reactions and semi-micro qualitative analysis.

Three lecture hours and three laboratory hours each week.

Chem 201 ANALYTICAL CHEMISTRY II, 4 cr.

A study of the theoretical principles and practices underlying analytical chemistry. It includes study and practice in separating and identifying the cations and anions, mathematical computations of chemical equilibria in solutions of electrolytes, and an introduction to the statistical methods applicable to qualitative and quantitative procedures.

Prerequisite: Chemistry 101 and 102.

Three lecture hours and three laboratory hours each week.

Chem 202 ANALYTICAL CHEMISTRY II, 4 cr.

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.

Prerequisite: Chemistry 201.

Three lecture hours and three laboratory hours each week.

Chem 211 LABORATORY TECHNIQUES IN CHEMISTRY, 3 cr.

Includes laboratory planning; selecting, care and storage of equipment, making of solutions and various reagents from stock supplies. Setting up classroom demonstrations for use in secondary schools is stressed.

Prerequisite: Chemistry 201 and 202.

Two class and three laboratory hours each week.

Chem 221 INDUSTRIAL CHEMISTRY, 3 cr.

The application of theories, laws and calculations of chemistry to industrial processes. An intensive study of at least one major industrial process is made by each student. The class work is supplemented by selected laboratory experiences and numerous trips to neighboring industries.

Prerequisite: Chemistry 101 and 102.

Two class and three laboratory hours each week.

Chem 301 ORGANIC CHEMISTRY I, 4 cr.

An elective for those who plan to major or minor in Chemistry. It includes a study of the hydrogen compounds of carbon of the aliphatic series with emphasis on structural relationships and nomenclature as well as on uses and characteristics properties.

Prerequisites: Chemistry 101 and 102.

Three class and three laboratory hours each week.

Chem 302 ORGANIC CHEMISTRY II, 4 cr.

A continuation of Organic Chemistry I, dealing primarily with the amines and proteins and those compounds belonging to the aromatic series. Both micro- and semi-micro techniques are employed to stress the properties and type reactions of the usual classes of organic compounds.

Prerequisite: Chemistry 301.

Three class and three laboratory hours each week.

Chem 311 ORGANIC PREPARATIONS, 3 cr.

An advanced course in synthetic organic chemistry. Important reactions and special experimental techniques are applied to the preparation of more complex organic compounds.

Prerequisites: Chemistry 201 and 202.

Two class and three laboratory hours each week.

Chem 321 BIOLOGICAL CHEMISTRY I, 3 cr.

Includes the chemistry of the carbohydrates, fats and proteins; a survey of the chemistry and function of enzymes, vitamins and hormones.

Prerequisites: Chemistry 301 and 302.

Two class and three laboratory hours each week.

Chem 322 BIOLOGICAL CHEMISTRY II, 3 cr.

Includes the chemistry of the carbohydrates, fats and proteins; a survey of the chemistry and function of enzymes, vitamins and hormones.

Prerequisites: Chemistry 301 and 302.

Two class and three laboratory hours each week.

Chem 331 COLLOID CHEMISTRY, 3 cr.

Discussion and laboratory work dealing with the theory of colloidal behavior. Stress is placed upon proteins and other materials encountered in the colloidal state which are important in nature and industry.

Prerequisites: Chemistry 201 and 202, and Chemistry 301.

and 302.

Two class and three laboratory hours each week.

Chem 341 FOOD ANALYSIS, 3 cr.

Includes studies of dietary problems, food requirements of persons of different ages, food metabolism, mineral requirements and utilization, basic chemical tests for food substances, food laws the effect of food on growth and well-being.

Prerequisites: Chemistry 301 and 302.

Two class and three laboratory hours each week.

Chem 351 AGRICULTURAL CHEMICAL, 3 cr.

Includes discussion of plant fertilizers and their soil reactions, plant composition and chemistry, chemical control of weeds, etc., as well as laboratory work in the field.

Prerequisites: Chemistry 201 and 202, and Chemistry 301 and 302.

Two class and three laboratory hours each week.

Chem 401 PHYSICAL CHEMISTRY I, 4 cr.
Properties of gases; elementary thermodynamics; thermochemistry; Kinetic molecular theory; atomic and molecular structure; introduction to the theory of chemical bonding.

Prerequisites: Chemistry 201 and 202, Mathematics through integral calculus.

Three hours lecture and three hours laboratory each week.

Chem 402 PHYSICAL CHEMISTRY II, 4 cr.
Kinetics; properties of solids and liquids; phase equilibria; colligative properties of solutions; electrolytic conductance and electrochemistry.

Prerequisite: Chemistry 401.

Chem 411 RADIO CHEMISTRY, 3 cr.
Includes properties of radioactive nuclei, nature of radioactivity, nuclear reactions, detection equipment, and traces techniques.

Prerequisite: Chemistry 201 and 202.

Two class and three laboratory hours each week.

Chem 421 NUCLEAR CHEMISTRY, 3 cr.
A lecture and problem course presenting our modern knowledge of the nature and properties of electrons, light quanta, atoms and molecules.

Prerequisites: Chemistry 201 and 202.

Three class hours each week.

Chem 431 LITERATURE OF CHEMISTRY, 1 cr.
Designed for chemistry majors and includes a survey of the literature in the field.

Prerequisites: Completion of 18 hours in Chemistry and German I (two trimesters). Every chemistry major should endeavor to take this course.

One class hour each week.

Chem 435 SPECIAL PROBLEMS IN CHEMISTRY, variable cr.
Topics will be selected to suit the individual needs of the students.

Chem 441 INSTRUMENTAL CHEMICAL ANALYSIS I, 3 cr.
Modern quantitative analysis employing instrumental methods. Lecture and laboratory work in photoelectric colorimetry, fluorimetry, spectrophotometry, potentiometric and conductimetric, titrimetry, elementary electronics, refractometry, polarography, electroanalysis and polarized light microscopy.

Prerequisites: Chemistry 201 and 202.

Two class and three laboratory hours each week.

Chem 442 INSTRUMENTAL CHEMICAL ANALYSIS II, 3 cr.
Modern quantitative analysis employing instrumental methods. Lecture and laboratory work in photoelectric colorimetry, fluorimetry spectrophotometry, potentiometric and conductimetric titrimetry, elementary electronics, refractometry, polarography, electroanalysis and polarized light microscopy.

Prerequisites: Chemistry 201 and 202.

Two class and three laboratory hours each week.

Chem 455 CHEMISTRY FOR HIGH SCHOOL TEACHERS, 3 cr.
Designed to strengthen the preparation of the teacher in service and will include recent ideas in chemical bonding, crystal structure, radio and nuclear chemistry.

Prerequisite: Certification in Physical Science or Chemistry.

Three class hours each week.

Chem 490 HONORS COURSES IN CHEMISTRY I, 3 cr.

Chem 491 HONORS COURSES IN CHEMISTRY II, 3 cr.

Chem 492 HONORS COURSES IN CHEMISTRY III, 3 cr.

Chem 495 SEMINAR IN CHEMISTRY, 1 cr.

PHYSICS

Phys 101 PHYSICS I, 4 cr.

An introductory course in mechanics and electricity. Some of the topics studied are the mechanics of solids, liquids, gases. The portion devoted to electricity and magnetism deals with the general concepts of magnetism, electrostatics, electrical circuits, generators, motors, and alternating currents.

Prerequisites: Algebra and Trigonometry.

Three class and three laboratory hours each week.

Phys 102 PHYSICS II, 4 cr.

A continuation of Physics I. Some of the topics discussed are: production and nature of sound waves, including music sounds; thermometry, calorimetry and heat transference; reflection and refraction, optical instruments, spectra and interference; and selected topics of the newer developments in physics such as radio-activity and atomic energy.

Three class and three laboratory hours each week.

Phys 103 PHYSICS (INDUSTRIAL ARTS), 4 cr.

On introductory course in the principles of physics with emphasis on problems. The topics include mechanics of solids, liquids, and gases. The portion devoted to electricity includes the general concept of magnetism, electrostatics, and electrical theory.

Prerequisite: Fundamentals of Mathematics.

Three class and three laboratory hours each week.

Phys 110 ASTRONOMY, 3 cr.

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 planetary system - Law of Gravitation - satellites, comets, and meteors. The sun - its atmosphere, sunspots, and eclipses. The stars in their seasons, constellations, stars. Cosmic dust and gas, the galactic system, the exterior galaxies.

Three hours lecture each week.

Phys 201 MECHANICS, 4 cr.

An intermediate course in mechanics of solids, liquids, and gases. An opportunity is provided for a deeper insight into the principles in operation and their practical application. Studies are made of rectilinear and circular motion, work and energy, impulse and momentum, simple harmonic motion, and hydrostatics. Emphasis is placed on qualitative considerations.

Prerequisites: Physics I and II.

Three class and three laboratory hours each week.

Phys 206 MAGNETISM AND ELECTRICITY, 4 cr.

An intermediate course in general electricity and magnetism. Direct and alternating current circuits; instruments; thermal, chemical and electromagnetic effects; with an introduction to electronics. Calculus recommended.

Prerequisite: Physics I.

Three class and three laboratory hours each week.

Phys 211 HEAT, WAVE MOTION, SOUND, 4 cr.

Temperature measurements, thermal expansion, calorimetry, heat transfer, properties of gases, thermodynamics, and wave motion as applied to sound with special attention to the new developments in ultrasonics. Intermediate level.

Prerequisites: Physics I and II.

Three class and three laboratory hours each week.

Phys 216 OPTICS, 4 cr.

Geometrical and physical optics including reflection and refraction at surfaces, lenses, interference and diffraction, elementary spectroscopy and polarization of light are discussed. Applications are made in the study of optical instruments.

Prerequisites: Physics I and II.

Three class and three laboratory hours each week.

Phys 221 MODERN PHYSICS, 4 cr.

This is a study of the twentieth century physics. The course includes the development in thermoionics, X-rays, and radioactivity. Considerable attention is given to the modern concepts of atomic structure together with the mechanisms of release of atomic energy and its subsequent utilization.

Three class and three laboratory hours each week.

Phys 226 PHYSICAL MEASUREMENTS I, 2 cr.

Experiments and problems in Mechanics and Electricity.

Prerequisite: Physics I.

One class hour and three laboratory hours each week.

Phys 227 PHYSICAL MEASUREMENTS II, 2 cr.

Experiments and problems in Sound, Heat and Light.

Prerequisite: Physics II.

One class hour and three laboratory hours each week.

Phys 231 SPECIAL PROBLEMS IN PHYSICS I, 2 cr.

Problems in Mechanics and Electricity. Examples drawn from its field of engineering.

Prerequisite: Physics I.

Two classroom hours per week.

Phys 232 SPECIAL PROBLEMS IN PHYSICS II, 2 cr.

Problems in Heat, Sound and Light. Examples drawn from the field of engineering.

Prerequisite: Physics II.

Two class hours each week.

Phys 301 ADVANCED MECHANICS, 4 cr.

This is an advanced course in mechanics. An opportunity is provided for the student to use calculus in the solution of problems. Specific topics to be developed are centroids and centers of gravity, moments of inertia, hydrostatics, kinetics of a particle, and dynamics of a rigid body.

Prerequisites: Intermediate Mechanics and Integral Calculus.

Three hours lecture each week.

Phys 306 ADVANCED ELECTRICITY AND MAGNETISM, 4 cr.

This is an advanced course in electricity and magnetism. Topics to be developed are properties of electrostatic and magnetostatic fields, electric circuit theory, Kirchoff's Law and circuit problems. Faraday's Law, electromagnetic induction, the properties of alternating-current circuits, capacitance, and electrical instruments.

Prerequisites: Intermediate Electricity and Magnetism and Integral Calculus.

Three hours lecture and three hours laboratory each week.

Phys 311 ELECTRONICS, 4 cr.

This is an advanced course in electronics. Special topics to be developed are electronic emission, operation of vacuum tubes and gas filled tubes, operation of amplifiers, rectifiers, basic control circuits, and transistor theory.

Prerequisites: Intermediate Electricity and Magnetism and Integral Calculus.

Three hours lecture and three hours laboratory each week.

Phys 401 PHYSICAL PRINCIPLES, 5 cr.

A comprehensive study of the field of physical science including: modern views on space time, and motion; with emphasis on special relativity, microcosm; microcosm including general relativity and cosmology.

Prerequisite: Major field of study one of the physical sciences.

Five lecture hours each week.

Phys 495 SEMINAR IN PHYSICS, 1 cr.

An introduction to the literature, history, teaching and research methods of physics. Strongly recommended for Physics majors.

Prerequisite: 12 hours of credit in Physics.

SOCIAL STUDIES DEPARTMENT

Dr. George Hart, *Department Head*; Dr. Berman, Dr. Grau, Mr. Hepner, Dr. Jack, Mr. Kania, Dr. Keller, Mr. Lechnar, Mr. Marshall, Mr. Norman, Dr. Roadman, Dr. Seigal, Dr. Wolfe, Mr. Zemo.

S Std 201 WORLD CULTURE I, 3 cr.

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.

S Std 202 WORLD CULTURE II, 3 cr.

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.

S Std 490 HONORS COURSE IN SOCIAL STUDIES

S Std 491 HONORS COURSE IN SOCIAL STUDIES

S Std 492 HONORS COURSE IN SOCIAL STUDIES

S Std 495 SEMINAR IN SOCIAL STUDIES

ECONOMICS

Econ 201 PRINCIPLES AND PROBLEMS OF ECONOMICS I, 3 cr.

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 202 PRINCIPLES AND PROBLEMS OF ECONOMICS II, 3 cr.

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 201.

Three class hours each week.

Econ 203 INDUSTRIAL RELATIONS, 3 cr.

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 underlying economic principles. Labor and management representatives from the area are invited to discussion sections when possible.

Three class hours each week.

Econ 206 HISTORY OF ECONOMIC THOUGHT, 3 cr.

A review of the economic writers and their contributions to economic ideas from the age of Adam Smith and the classical school to the present day.

Three class hours each week.

Econ 301 MONEY AND BANKING, 3 cr.

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: Economics 201.

Three class hours each week.

Econ 302 PUBLIC FINANCE, 3 cr.

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: Principles of Economics.

Three class hours each week.

Econ 470 COMMUNITY RESOURCES WORKSHOP

A method of providing teachers in all levels of education with the opportunity to 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 the participants and other teachers.

First Summer Session - 4 weeks, daily 9 A. M. to 4 P. M.

Four credits - Graduate or Undergraduate.

Econ 471 THE AMERICAN ECONOMY, 6 cr.

The American Economy course is a college-of-the-air production presented over the CBS television network and over independent as well as educational stations. One hundred fifty-nine, one-half hour lessons are broadcasted over a two trimester period. Formal class sessions are held bi-weekly. The course covers a general survey of economic principles and problems of our modern economic system.

HISTORY

Hist 101 HISTORY OF UNITED STATES AND PENNSYLVANIA I, 3 cr.

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 UNITED STATES AND PENNSYLVANIA II, 3 cr.

A broad study of the political, economic, social, and intellectual forces which shaped the American past since 1865. Pennsylvania history assumes a prominent place in this course.

Three class hours each week.

Hist 103 SURVEY OF UNITED STATES AND PENNSYLVANIA, 3 cr.

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. Problems in American, political, social and economic history will be discussed.

Three class hours each week.

Hist 121 HISTORY OF EUROPE TO 1815, 3 cr.

The development of the social, economic, political, religious and cultural experiences of the European people. The decline of monarchical Europe and the major democratic movements in Europe.

Three class hours each week.

Hist 122 HISTORY OF EUROPE SINCE 1815, 3 cr.

The growth of European national states as reflected in their political, social and economic activities. An understanding of the casual and intergroup relationships are essential to the analysis and interpretation of the difficulties facing the European world today.

Three class hours each week.

Hist 201 HISTORY OF PENNSYLVANIA, 3 cr.

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 HISTORY OF UNITED STATES, 3 cr.

The policies and problems of United States in the twentieth century, with emphasis upon the Second World War and the post-war period.

Prerequisites: United States and Pennsylvania I and II.

Three class hours each week.

Hist 221 HISTORY OF CONTEMPORARY EUROPE, 3 cr.

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 222 HISTORY OF ANCIENT WORLD, 3 cr.

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 223 HISTORY OF MEDIEVAL EUROPE, 3 cr.

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 cr.

Renaissance Culture in Europe from the 14th to the 16th century, with emphasis on Italy. It will include a treatment of late Medieval Civilization, the growth of Humanism, and the rise of the Middle Class. Also surveyed is disruption of the Universal Church, the rise of the principle branches of Protestantism, and the reform movement within the Roman Catholic Church.

Three class hours each week.

Hist 301 DIPLOMATIC HISTORY OF UNITED STATES, 3 cr.

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 302 AMERICAN CONSTITUTIONAL HISTORY, 3 cr.

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 303 SOCIAL HISTORY OF THE UNITED STATES

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 331 HISTORY OF ENGLAND, 3 cr.

The growth of the people and institutions of England from the conquest by 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 332 HISTORY OF LATIN AMERICA, 3 cr.

The development of the 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 333 HISTORY OF THE FAR EAST, 3 cr.

The interaction of East and West with emphasis on developments since 1800. The impact of modern technology, imperialism, nationalism and communism on Oriental cultures is given special attention.

Three class hours each week.

Hist 334 HISTORY OF THE MIDDLE EAST, 3 cr.

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 335 HISTORY OF RUSSIA

Hist 401 TWENTIETH CENTURY WORLD HISTORY, 3 cr.

Background and analysis of 20th century events and emerging issues is brought out by a study of the growth of capitalism, imperialism, totalitarianism, World Wars I and II and recent effects toward collective security and international understanding.

Three class hours each week.

Hist 405 HISTORY OF AMERICAN LABOR, 3 cr.

POLITICAL SCIENCE

Pol Sci 201 AMERICAN GOVERNMENT, 3 cr.

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 301 STATE AND LOCAL GOVERNMENT, 3 cr.

A treatment of the organization, powers functions, and problems of state and local governmental 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 302 INTERNATIONAL RELATIONS, 3 cr.

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 303 UNITED NATIONS, 3 cr.

The background, structural organization, functions and activities of the United Nations; emphasizing continued efforts toward collective security, together with the problem of strengthening the United Nations.

Three class hours each week.

Pol Sci 401 POLITICAL PARTIES, 3 cr.

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 402 WORLD POLITICS, 3 cr.

An inter-disciplinary approach to the study of international politics, stressing the basic factors of national strength-economic and military, political and strategic-and theories of power patterns as applied to regional areas of the world in the struggle of the great powers to win the neutral nations.

Three class hours each week.

Pol Sci 405 COMPARATIVE GOVERNMENT, 3 cr.

Major attention is given to Great Britain and Soviet Russia as best representing, among foreign governments, the democratic and authoritarian systems. 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.

SOCIOLOGY

Soc 201 PRINCIPLES OF SOCIOLOGY, 3 cr.

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 202 CONTEMPORARY SOCIAL PROBLEMS, 3 cr.

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.

Soc 301 THE FAMILY, 3 cr.

This course deals with the 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 302 ANTHROPOLOGY, 3 cr.

Antiquity of man; varieties of ancient and modern types; origins, development of preliterate culture, primitive social organization.

Three class hours each week.

SPEECH DEPARTMENT

Dr. Bos, *Department Head*; Mrs. Coover, Mr. Emelson, Miss Langham.

Sp 101 PHONETICS, 3 cr.

A study of the International Phonetic Alphabet with an analysis of positions and movements involved in the production of speech sounds based on phonetic principles; emphasis on phonetic transcription and correct pronunciation.

Sp 102 ADVANCED PHONETICS, 3 cr.

The advanced study of the International Phonetic Alphabet with an analysis of the phonetic sounds according to their kinesthetic, acoustical, and physiological principles; variations of phonemes and the matter of producing them.

Sp 201 FUNDAMENTALS OF SPEECH, 3 cr.

This course is designed to provide the student with both the theory and practice of public address. Emphases are placed upon the speech processes and upon speech as a communicative and motivating activity.

Sp 202 FORMS OF PUBLIC ADDRESS, 3 cr.

This course is designed to reinforce and intensify the values of Speech 201. It is further designed to give the student an introduction to the characteristics of various types of speeches and speech situations, and practice in the preparation and delivery of speeches for various occasions.

Prerequisite: Speech 201.

Sp 203 ORAL INTERPRETATION, 3 cr.

The oral re-creation of literature, based on the processes of finding the meaning in idea and in feeling and communicating that meaning to others, both orally and visually.

Three class hours each week.

Sp 204 VOICE AND DICTION, 3 cr.

A course planned to aid teachers in gaining vocal control. Part of the time is devoted to correction, pronunciation, articulation, and enunciation.

Three class hours each week.

Sp 221 CHORAL SPEAKING, 3 cr.

Practice of correct and expressive speech through the group achievement of the verse speaking choir. This course is designed to aid both elementary and secondary teachers in the organization, selection of materials, methods, and direction of choral speaking.

Three class hours each week.

Sp 301 ARGUMENTATION AND DEBATE, 3 cr.

This course is designed to give the student familiarity with, and practice in, the principles of logical reasoning and oral presentation of reasoned discourse. Practice is provided in formal debate, utilizing a variety of formats.

Prerequisite: Speech 201.

Sp 302-304 PARLIAMENTARY PROCEDURE, 1 to 3 cr.

This course is designed to give the student a basic knowledge of the principles and practices of parliamentary procedure, in order to prepare him for more effective participation in the formal conduct of business in general assemblies. It is taught in three distinct one-hour units, with division of subject matter as indicated below. Each unit may be taken separately. However, the unit on Basic Principles is a prerequisite to either of the others.

Sp 302 PARLIAMENTARY PROCEDURE: BASIC PRINCIPLES, 1 cr.

Sp 303 PARLIAMENTARY PROCEDURE: MOTIONS, 1 cr.

Sp 304 PARLIAMENTARY PROCEDURE: ORGANIZATIONS, 1 cr.

Sp 305 DISCUSSION AND CONFERENCE TECHNIQUES, 3 cr.

This course is designed to acquaint the student with the basic principles of the scientific method as applied to the cooperative solving of contemporary problems, and the employment of this method by committees, panels, symposia and forums. Students will plan and participate in discussions of contemporary problems.

Prerequisite: Speech 201
Three class hours each week.

Sp 311 STAGE DIRECTION, 3 cr.

A fundamental approach to the staging of a play, including script selection and analysis, casting, set design, rehearsal techniques and performance. Students will direct short scenes and one-act plays as class projects.

Three class hours each week.

Sp 321 TECHNICAL PLAY PRODUCTION, 3 cr.

A practical course in the design, planning and execution involved in play production for the following kinds of work: scenery, lighting, costume, makeup, properties, supervision and running of rehearsals and performances.

Three class hours each week.

Sp 325 CHILDREN'S THEATRE, 3 cr.

The purpose of this course is to give vocational training in children's theatre to the prospective elementary and secondary Speech teachers, and to give experiences in the creative arts to those students who are engaged in other programs. This course includes consideration of methods of producing drama for the child audience: play choice, acting, directing, and technical play production, including workshop in children's theatre.

Sp 331 ACTING, 3 cr.

A practical course in the teaching and training of acting, considering voice, movement, characterization, internal and external techniques, plus study and application in historical periods and styles, high school and college play production. Students will get practical experience in class and campus productions.

Three class hours each week.

Sp 370 CO-CURRICULAR ACTIVITIES—FORENSICS, 1 cr.

Sp 371 CO-CURRICULAR ACTIVITIES—FORENSICS, 1 cr.

Sp 372 CO-CURRICULAR ACTIVITIES—FORENSICS, 1 cr.

Sp 375 CO-CURRICULAR ACTIVITIES—THEATRE, 1 cr.

Sp 376 CO-CURRICULAR ACTIVITIES—THEATRE, 1 cr.

Sp 377 CO-CURRICULAR ACTIVITIES—THEATRE, 1 cr.

Sp 401 THEORIES OF RHETORIC, 2 cr.

This course is a study of the major works of ancient, renaissance and modern rhetoricians as they developed the currently accepted theories of persuasion. Emphasis is placed upon Aristotle's *Art of Rhetoric* and its influence upon later theorists.

Prerequisite: 12 hours Speech credit.
Two class hours per week.

Sp 411 HISTORY OF THE THEATRE, 3 cr.

A study of the history and development of dramatic literature from the Greeks to Off-Broadway, considering historical changes in the physical theatre, styles, costumes, acting, audiences and productions.

Three class hours each week.

Sp 421 EDUCATIONAL TELEVISION AND RADIO, 3 cr.

This course is designed to give the student a basic knowledge of the theory of television and radio. Standard techniques of production, and some insight into applications to the educational process.

Prerequisite: Sp 201 or its equivalent.

Three class hours each week.

Sp 490 HONORS COURSE IN SPEECH I, 3 cr.

This course provides an opportunity for individual study and research on topics and materials of interest to the student but not included in other courses offered by the department, under the direction of a member of the department staff.

Prerequisite: High academic standing and approval of the proposed director of the study, the Department Head and the Dean of Instruction.

Three class hours each week.

Sp 491 HONORS COURSE IN SPEECH II, 3 cr.

This course provides for a continuation of work begun in Honors Course in Speech I.

Prerequisite: In addition to above, satisfactory completion of the first course in this sequence.

Three class hours each week.

Sp 492 HONORS COURSE IN SPEECH III, 3 cr.

This course provides for the opportunity for completion of the individual study undertaken in Speech 490 and 491, and under the same conditions.

Three class hours each week.

Sp 495 SEMINAR IN SPEECH, 1 cr.

This course provides an opportunity for intensive group study of areas within the field of Speech not treated in other courses.

Prerequisite: Approval of the instructor in charge and the Department Head.

One class hour each week.

VI. Academic Procedures

RESIDENCE

CITIZENSHIP

CREDITS

GRADING SYSTEM

SCHOLARSHIP AND ACADEMIC STANDARDS

ADVISORY SYSTEM

PROFESSIONAL LABORATORY EXPERIENCES

ADVANCED STANDING

STUDENT TEACHING

GRADUATION

HONORS

CERTIFICATION

PLACEMENT

Academic Procedures

Responsibility for knowing and following the academic rules and regulations, including requirements for graduation, rests with the student. Faculty advisors assist students in planning their academic programs but are not expected to relieve the students of their responsibility.

RESIDENCE REQUIREMENTS

Students in all curriculums must complete a minimum of thirty-two credits, in courses given by the College, if they expect to receive degrees from this institution. These credits may be gained on the campus in regular day, evening, or Saturday classes; 25 percent of the number of credits required may be in extension courses given by the college.

CITIZENSHIP

In keeping with legislative provisions, a student, to be eligible for a teacher's certificate, is required to present evidence of citizenship of the United States. If he is not a citizen of the United States at the time of his admission, he is required to become naturalized before he may be granted a Teacher's Certificate. A non-citizen, however, can be awarded the Bachelor of Science in Education degree.

CREDITS

Courses are recorded in terms of "trimester hours of credit." A trimester hour of credit represents one hour a week of recitation or lecture throughout a trimester of sixteen weeks. In laboratory courses, however, a ratio of two, three, or four hours of laboratory work for one credit prevails, according to the department. Varying amounts of required outside work are also assigned, so that, where the total number of credit hours is stated to be 15 or 16, the number of clock

hours a week may total as high as 30, 32 or more. Descriptive titles and credit values of courses appear in the section of this bulletin devoted to course offerings.

EVALUATION OF CREDITS

An evaluation of credits is considered valid only for the year in which the distribution is made. The situation exists because of frequent changes in regulations governing the value of credits and in the requirements for certification and graduation made by the State Department of Public Instruction, the State Council of Education, and the Board of Presidents of the State Colleges. Students are urged to keep themselves informed about their credit standing by occasional inquiry, other than at registration periods, at the office of their Curriculum Director.

Students who are not graduates of first-class four-year secondary schools must have their credits evaluated by special procedure. Persons to whom this applies should consult the Dean of Instruction.

NORMAL SCHOOL CREDITS

All persons who were graduated from a State Normal School prior to September 1927, and who have a four-year secondary school education will be granted not more than 68 trimester hours of credit toward a degree.

Students who were graduated from a State Normal School before four years of secondary school preparation were required and who still have not satisfied this requirement should apply to the Secondary Credentials Division of the Department of Public Instruction, Harrisburg, Pennsylvania, for information about obtaining a secondary school equivalent certificate, which, when issued, will be accepted by the college for admission to a degree curriculum.

CREDIT BY EXAMINATION

(a) A student may request an examination in any subject matter area in which he registers for the purpose of securing exemption from taking a course.

(b) A student shall be given credit for a course in which he registers and in which he demonstrates competence by a qualifying examination.

Application for examination under (b) should be made to the Dean of Instruction at the time of registration. The examination will be given within two weeks of the time of application

ADVANCED STANDING CREDIT

Credit for advanced standing is not allowed for work done by correspondence, nor will credit be given for courses which are not equivalent to those required or approved in the curriculums offered at this college or for courses completed at other colleges or universities in which grades below C were earned. All credits of students who apply for admission with advanced standing must be approved by the Dean of Instruction. Credits from colleges not approved by the Department of Public Instruction of Pennsylvania or other accrediting organizations will not be accepted toward either certification or graduation.

EXTENSION CREDITS

The college will accept for graduation a limited number of extension credits from other accredited institutions only when those credits have been earned in courses taught by persons who were then giving their full time to extension instruction in such institutions or to a combination of extension and campus instruction. Usually not more than the equivalent of one year's work of 32 trimester hours in extension courses will be accepted toward a degree.

CORRESPONDENCE COURSES

Credits for correspondence courses are not accepted except for members of the armed forces submitting records through the United States Armed Forces Institute, Madison, Wisconsin.

TRANSCRIPTS OF CREDITS

Official transcripts, obtainable through the Registrar upon the written request of the student, will be sent to the State Department of Public Instruction for use in obtaining certification or to institutions to which credits are to be transferred.

Only the work completed at the California State College will be included in the transcript. Work taken at another institution should be certified directly from that institution.

One copy of a transcript of credits earned at California State College will be issued free of charge. A charge of one dollar is made for a second and for each subsequent transcript. This fee of one dollar will be waived for transcripts that are "to be used in connection with induction, enlistment, or advancement in the armed forces."

Transcripts cannot be prepared during the last week of trimester or during the registration period. Persons planning admission to graduate school or to transfer to another collegiate institution should file the request for transcript with the Registrar at least a month before the end of the trimester. Women who have married since leaving college should give their maiden name as well as their married name.

WITHDRAWALS

Students who find it necessary to leave the college during a trimester should, before discontinuing attendance at classes, confer with the Dean of Instruction. If after such conference it is found that the student should not continue, official withdrawal forms must be filed in the Registrar's Office. Students who leave the college without following this routine, especially the filling in of withdrawal cards, jeopardize their status.

Withdrawal forms must be properly filled in by students who desire to discontinue part of their schedules. When students merely stop attending classes without officially withdrawing, F (failing) grades are recorded on the permanent records.

CLASSIFICATION

Students are classified as freshmen when they have earned 32 or fewer credits; as sophomores when they have earned 33 to 64 credits inclusive; as juniors when they have earned 65 to 96 credits inclusive; and as seniors when they have earned 97 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.

GRADE REPORTS

Grade reports for students doing failing or low quality work are handed to the Dean of Instruction at the end of each eight-week period. Students reported are notified of their low grades and where deemed necessary, information is sent to the parents. The final trimester grades are mailed to the parents.

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

For the purpose of interpreting percentage grades into letter grades, the following local standards have been approved by the faculty.

- 95% to 100% — A
- 88% to 94% — B
- 76% to 87% — C
- 70% to 75% — D
- Below 70% — Failing

The symbol, Inc., is not used unless the student has been in attendance throughout the trimester or session and because of personal illness, covering two or more consecutive weeks, the student is not able to meet the requirements of the course at the end of the session. It indicates that as the work is incomplete the final grade is being withheld until the student fulfills all the requirements of the course. It is only used when conditions and circumstances warrant and when evidence is presented to justify its being given. An incomplete is always accompanied by a supplementary symbol indicating the character of the work already done: IncF, IncD. 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 Dean of Instruction.

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.

QUALITY POINT SYSTEM

As there is a quality standard for passing each course, so there is a standard for completing a curriculum. This is made possible by the establishment of a quality point system which states that students cannot be graduated by getting merely passing grades in each course.

The quality point system requires that a student, before he can be graduated, must complete all required and elective courses in the curriculum which he is pursuing, have the minimum number of credits required by his curriculum, and earn a quality point average of at least 2.0 (C) for all courses in which grades other than P are given. Only courses completed at this college are included in the quality point computation.

Each credit of work completed at California is awarded quality points which are computed according to the following scale; each credit of A grade is multiplied by 4, B grade by 3, C grade by 2, D grade by 1, and F grade by 0. Courses dropped without the consent of the Dean of Instruction shall constitute an F. Courses in which P grades are given do not count in quality point computation. Courses transferred from other approved collegiate institutions are not counted in the quality point average.

SCHOLARSHIP AND ACADEMIC STANDARDS

Students admitted to California State College are expected to maintain an adequate academic average each trimester in attendance in order to continue their studies.

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. 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.

3. Students who earn a quality point average of less than 2.00 during the trimester of academic probation will be dismissed from the college. Students who earn a quality point average of 2.00 or better for the trimester of academic probation will be considered clear students for the following trimester.

4. Probation students must carry a minimum of 12 trimester hours.

5. Students except first trimester freshmen who do not earn a quality point average of 1.50 during a trimester will be dismissed from the college.

6. Students who are dismissed from the college will be eligible to apply for re-admission after one trimester. Re-admitted students will be considered on probation and required to maintain a 2.00 quality point average the trimester of re-admission in order to continue.

7. Re-admission to the college is not automatic. Each case will be passed on by the Scholarship Committee.

8. Summer School grades will be counted for the purpose of determining probation or N.P.R. (not permitted to register) status when the student has carried a minimum of twelve (12) credits during a Summer Session. A student will be given clear or probation status at the end of a Summer term and may be placed on N.P.R. or avoid the same on the basis of the quality of work performed in the Summer.

9. Withdrawal from a course will be permitted during the first eight weeks of a trimester subject to the approval of the Dean of Instruction. A grade of WX will be assigned as a mark for withdrawal during the first six weeks. A W-letter grade will be assigned as a mark for a withdrawal during the seventh, eighth, and ninth weeks. An F grade will be assigned for any withdrawal without cause subject to the approval of the Dean of Instruction after the first eight weeks of the trimester.

10. Quality point average for the trimester is determined by the number of hours scheduled divided into the total number of quality points earned.

CLASS SCHEDULES

A program of schedule advising and program preparation is provided by the Dean of Instruction and the Curriculum Directors. By making use of this service, a student may plan his program well in advance so that he may graduate in four, three and one half or three years. Acceleration beyond three years is generally not considered advisable.

HONOR CREDITS

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

Students will be given approval to carry honor credits according to the following quality point average based on the grades of the previous trimester:

<i>Quality Point Average</i>	<i>Total Credits Scheduled</i>
3.00 to 3.49.....	17 credits
3.50 to 4.00.....	18 credits

College rules, in keeping with regulations of the State Department of Public Instruction, sanction only one credit a week during a summer session; that is, six credits during a six weeks' session, three credits during a three weeks' session and twelve credits during the summer trimester.

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 Dean of Instruction or their Curriculum Director before registering.

SUMMER SESSION

To accelerate, a student should plan to spend several summers in full attendance. It is possible for a student to earn 12 credits in each summer session of full attendance and for this purpose a large and active summer program is provided. Generally speaking, all required courses are offered each summer as well as a representative group of elective courses in every area of specialization. Full information may be obtained from the *Summer Session Bulletin* issued in the Spring of each year. Address the Dean of Instruction, California State College, California, Pennsylvania.

SATURDAY AND EVENING PROGRAMS

Part-time students or teachers-in-service may utilize Saturday and Evening courses designed to meet the needs of a limited number of persons unable to attend regular classes.

ADVISORY SYSTEM

The College gives special attention to the new student through interviews, counseling, and testing. Efforts are made to appraise the interests and abilities of each student. Results of these data and anecdotal records are available to all counseling personnel concerned. While the whole faculty assists, upon request, with the guidance program, certain members have been assigned the following responsibilities:

1. The Dean of Instruction and Directors of Curriculum assume responsibility for educational guidance: selection of curriculums, course requirements, certification requirements, student load.
2. The Director of Guidance administers the testing program and works with students who have academic difficulties.
3. The Deans of Personnel are responsible for social adjustments: housing, organization of commuting students, religious activities, social activities and development of study programs.
4. Director of Student Activities establishes and maintains the master calendar of co-curricular activities, coordinating this program with the curricular program of the college. Through the student activities fund he serves as an adviser to the

student government in determining and carrying out the request of student body activities. The scheduling and planning of activities also falls in the realm of the Director's office.

5. A Veteran's Clerk has been designated as Veterans' Adviser to deal with special problems relating to veterans.

6. Each department meets regularly with its majors and provides advisement of these students. The schedule of office hours of all faculty members is posted in the Office of the Dean of Instruction. Students are encouraged to consult their professors at frequent intervals during the trimester.

7. Health guidance is the primary responsibility of the resident nurse and college physician.

PROFESSIONAL LABORATORY EXPERIENCES

To supplement the classroom preparation of teachers, 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 the faculty members who teach Professional Education courses, each student maintains a record of all 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 a basis for the evaluation of student growth. Laboratory experience records are filed with the Director of Guidance and are available to prospective employers through the Placement Office.

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 through the orientation program. Student activities are considered an adjunct to the academic program and not a substitute for it.

Transfer students will be expected to report voluntarily to the chairman of the Professional Laboratory Experiences Committee and complete the necessary forms.

ADVANCED STANDING PROGRAM

Formal admission to Advanced Standing is a requisite for continuing the program in teacher education. This marks the time when the

professional work is intensified. Fourth semester students will make application for admission to Advanced Standing, for which they are required to meet the following qualifications:

1. The scholastic record must be a "2.0" average or better for the first two years of work taken by the student. This is to be certified by the student on the application form.

2. A "2.0" average must be attained in Communication I and Communication II (Composition I, II and Speech I, II) or the student must make a score equivalent at least to the 21st percentile on the STEP test. The student is to fill in the Communication I and II grades or the equivalent on the application form.

3. Adequate background as measured by the STEP series of the Sophomore Tests in selected area must be shown. A student whose average score in all areas is below the 21st percentile or who has any single test score below the 10th percentile will be required to pass a selected course in his area of deficiency.

4. A satisfactory recommendation of the Counseling Service Committee is required of each applicant.

5. Satisfactory evidence of physical stamina, good posture, and freedom from physical defects that may interfere with the duties of a teacher must be presented.

6. The voice must be pleasing and free from objectionable qualities. A student who has failed to pass the speech test because of either voice or speech defects is required to take correction work in the College Speech Clinic until his deficiencies, if remediable, have been overcome. Evidence of his having reached a satisfactory speech standard must be included in his record at the time application is made for Advanced Standing.

7. Evidence of participation in at least two co-curricular activities must be presented; a community activity may be substituted for one of the two required. This is filled in on the application form by the student.

Credentials will be examined by the Committee on Advanced Standing, and the decisions will be reached on the basis of all evidence available.

Students who fail to meet the requirements of Advanced Standing may be given two consecutive sessions with a minimum of 12 semester hours each to remove the deficiency. If, however, the student fails to remove the deficiency by the close of the

first trimester he will be placed on a limited schedule during the second trimester.

STUDENT TEACHING

Student teaching is conducted under the supervision of the Director of Student Teaching, whose office is located in North Hall 114. Students who are candidates for degrees 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 work is carried on in the campus Laboratory School and in selected public schools located in the service area of the college.

Students must make application for student teaching by filling out a form obtainable through the office of the Director of Student Teaching. Registration for student teaching will be held during the March group guidance meeting.

Before a student may be assigned to this vital part of the teacher-education curriculum, he must (a) hold a certificate of advanced standing; (b) have a minimum quality point average of at least 2.0 for all courses in which grades other than P are given; (c) have a minimum quality point average of 2.0 in his area of specialization; (d) 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 the college. Graduates of other colleges must meet the residence requirement before being assigned to student teaching.

STUDENT TEACHING FOR EXPERIENCED TEACHERS

Teachers with three or more years' experience in teaching who become candidates for degrees and who hold certificates below the level of the Provisional College certificate may, at the discretion of the college, complete the unfulfilled student teaching requirements for degrees in any of the following ways:

1. Earn in actual student teaching the number of hours required.
2. Perform under the direction of this institution an assignment associated with their professional work which carries not

less than one or more than six trimester hours of credit in a single trimester. The number of credits will be determined by the quality and amount of work done in the special assignment. In such cases the candidates must be regularly registered in the institution and may not earn more than a total of six hours of credit in a single trimester for all courses pursued.

3. In individual cases, pursue, to the limit of three trimester hours, courses approved by the college. The rest of the credit shall be earned in one of the ways designated above, or by a combination of them.

No credit toward graduation is granted for teaching experience.

Teachers-in-service who have not fulfilled the student teaching requirement of twelve credits and who are interested in completing it, must consult the Dean of Instruction.

GRADUATION

Commencement exercises are held at the close of the fall and spring trimesters. At these exercises, degrees are conferred. All students who in the session preceding have completed the requirements for degrees constitute the graduating class. All members of the class are required to participate in all the Commencement activities.

REQUIREMENTS FOR GRADUATION

In order to graduate, a student must pursue successfully the course requirements in his chosen curriculum. The criteria for successful work has been established by the scholarship and other faculty committees and is described in detail on the following pages. These standards include a 2.0 quality point average to be attained for advanced standing purposes, for student teaching and for graduation. When these general and specific requirements have been met and upon completion of a minimum of 128 credit hours of work a degree of Bachelor of Science in Education is awarded, assuming the satisfaction of financial and other obligations.

CANDIDACY FOR DEGREE

At the time of registration for the trimester in which he expects to complete the requirements for graduation, the student must file with

the Registrar an application for admission to candidacy for the degree.

Any student desiring to pursue any part of his program at a different institution will be required to secure, in advance, the approval of such courses from the Dean of Instruction.

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. Specific curriculum requirements may exceed the 128 credit minimum.

2. The student must be pronounced physically fit by a physician legally qualified to practice medicine in Pennsylvania.

3. The teaching ability of the student must be satisfactory to the Director of Student Teaching regardless of other credits.

4. No student will be graduated with less than two years of bona fide residence. The last 32 credits needed to complete a curriculum must be taken while the student is in actual attendance at the college.

5. 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 Public Instruction until such accounts have been paid. The records of such students are "Sealed" and no information will be given until cleared.

6. 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 and certification will be postponed to the following graduation date.

7. Students must register with the Placement Service by filling out in every detail the registration form supplied by the Placement Service.

8. 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.

HONORS 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 through a committee composed of members of the faculty.

SCHOLARSHIP AWARDS

The Scholarship Award is given to the person making the highest academic average in each of the curricula of the college.

COMMENCEMENT HONORS

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

Highest Honors — Quality Point Average 3.75 to 4.00
— No D or F grades.

High Honors — Quality Average 3.50 to 3.74 — No
D or F grades.

Honors — Quality Point Average 3.25 or better — No
F grades.

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

TRIMESTER HONORS

Trimester Honors (The Dean's Honors List are awarded on the basis of quality point average at the end of the trimester as follows:

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

CERTIFICATION OF TEACHERS PROVISIONAL COLLEGE CERTIFICATION

Students who receive a degree after completing a four-year curriculum at this college will be granted a Provisional College Certificate, which is issued by the Department of Public Instruction. The certificate, for which application must be made, must be issued before graduates may teach in the public schools of Pennsylvania.

This certificate, not to be confused with the diploma issued at graduation, is valid for three years of teaching. It indicates the subject or subjects and the field in which the holder is permitted to teach, and may become permanent when the holder meets the requirements established by the State Council of Education.

The Dean of Instruction or the Curriculum Directors will confer with persons who wish to have a Provisional College Certificate extended to include industrial arts, speech correction, or the teaching of mentally retarded classes.

PERMANENT COLLEGE CERTIFICATE

A Provisional College Certificate may be made permanent after three years of successful teaching experience, rated at "middle" or better, in the appropriate field in the public schools of the Commonwealth and the satisfactory completion of at least twelve trimester hours of additional preparation of collegiate grade, completed subsequent to the conferring of the baccalaureate degree. Twenty-four hours will be required after October 1, 1963.

Holders of Provisional College Certificates issued after September 1, 1935, will be required to present evidence of having completed an approved course in visual and sensory techniques before the certificates may be converted into permanent form. The regulation is not retroactive. Persons who received Provisional College Certificates prior to September 1, 1935, will have them made permanent on the basis of the requirements in effect when they were issued.

PLACEMENT SERVICE

As part of its public service, the college maintains a placement office. Its purpose is to aid students and graduates in obtaining desirable positions as teachers and to assist school officials in locating well-qualified teachers who fit the requirements of vacancies in the schools of the service area of the college.

All students are required to enroll with the placement office when they complete their student teaching. Although this service does not guarantee positions, records filed by the registrants open opportunities that might not otherwise be available. Inquiry concerning charges for credentials should be made to the placement office.

VII. Directory

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President of the CollegeDR. MICHAEL DUDA

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Dean of Administrative AffairsPAUL N. WALKER
Dean of Student Affairs and ServicesALLEN G. WELSH
Business ManagerPAUL E. WICKERHAM

DIRECTORS OF ACADEMIC AFFAIRS

Elementary CurriculumMERLE O. COVELL
Industrial ArtsSHRIVER L. COOVER
Liberal ArtsGABRIEL P. BETZ
Secondary CurriculumPAUL N. WALKER
Graduate DivisionSTEPHEN E. PAVLAK

CURRICULUM SERVICES

Admissions and Academic RecordsHAROLD E. KEMPER
Guidance ServicesMALVERNE R. WOLFE
Audio Visual ServicesJACK F. HOYES
LibrarianVIRGINIA E. LUCKHARDT
Noss Laboratory SchoolMERRELL E. HOLMAN
PlacementSTEPHEN E. PAVLAK
Student TeachingIRVIN J. SHUTSY

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Atypical EducationARTHUR G. HENRY
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MathematicsHARRY L. MONROE
ScienceJOHN F. LEWIS
SpeechWILLIAM H. BOS
Social StudiesGEORGE S. HART

STUDENT AFFAIRS AND SERVICES

Dean of MenALLEN G. WELSH
Dean of WomenLELA T. HAMILTON
Director Student ActivitiesJOSEPH DOCHINEZ
College PhysicianJOSEPH E. DOWNEY
College Nurses{DOROTHY HANJORJIRIS, R. N.
ROBERTA SABOW, R. N.
MYRTLE B. MATHESON, R. N.
Assistant Dean of MenROBERT ALDSTADT
Assistant Dean of WomenISABELLE R. KING
Director of AthleticsEUGENE J. HESTER

ADMINISTRATIVE SERVICES

South Western Regional Instructional Materials Center
.....KRYL W. RICHARDS

BUSINESS SERVICES

Superintendent of Buildings and GroundsWILLIAM HORMELL
HousekeeperDELLA MCCLELLAN
Food ServicesALONZO FARR

for the A. L. Mathias Company

The Faculty

MICHAEL DUDA (1956)

President

A.B., St. Vincent College; M.Ed., University of Pittsburgh; Ed.D., University of Pittsburgh; LL.D., St. Vincent College

PROFESSORS

ASA H. ANDERSON (1956)

Professor of Biology

A.B., Salem College; M.A., West Virginia University; Ph.D., West Virginia University

SYDNEY C. BAUSOR (1960)

Professor of Biology

A.A., Columbia College; M.A., Columbia College; Ph.D., Columbia College

GABRIEL P. BETZ (1955)

Professor of Geography

Head of the Geography Department

Director of Liberal Arts

B.S., University of Illinois; M.S., University of Illinois; D.S.S., Syracuse University

WILLIAM H. BOS (1963)

Professor of Speech

Head of Speech Department

A.B., Wheaton College; A.M., Washington University; B.D., Western Theological Seminary; Ph.D., University of Michigan

MERRILL G. CAMPBELL (1948)

Professor of Industrial Arts

B.S., California State Teachers College; M.Ed., University of Pittsburgh; Ed.D., University of Pittsburgh

ARTHUR M. COON (1960)

Professor of English

Head of English Department

A.B., Cornell University; M.A., University of Michigan; Ph.D., Cornell University

SHRIVER L. COOVER (1930)

Professor of Industrial Arts Education

Head of the Industrial Arts Department

B.S., Geneva College; M.A., University of Pittsburgh; Ed.D., University of Pittsburgh

LESLIE E. CROWLEY (1955)

Professor of Education

A.B., University of South Carolina; M.Ed., University of South Carolina; Ed.D., George Peabody College for Teachers

NED CULLER (1961)

Professor of Education

B.S., Pennsylvania State University; M.Ed., Pennsylvania State University; Ed.D., University of Pittsburgh

ROBERT T. FISHER (1961)

Professor of Philosophy

B.S., Wayne State University; M.Ed., Wayne State University; Ed.D., Michigan State University

KARL W. GAMBLE (1961)

Professor of Education

B.S., California State College; M.Ed., University of Pittsburgh; Ed.D., University of Pittsburgh

ALBERT BROWNING HALLEY (1960)

Professor of Modern Languages

A.B., Marshall University; M.A., Harvard University; M.A., University of Michigan; Ph.D., University of Cincinnati

- GEORGE S. HART (1938)**
Professor of Social Studies
Head of the Social Studies Department
 A.B., University of Pittsburgh; M.A., University of Pittsburgh; Ph.D., University of Pittsburgh
- ARTHUR G. HENRY (1958)**
Professor of Education
Head of the Atypical Education Department
 B.S., University of Pittsburgh; M.A., University of Pittsburgh; Ed.D., University of Pittsburgh
- JACK F. HOYES (1946)**
Professor of Education
Director of Audio-Visual Education
 B.S., California State Teachers College; M.Ed., University of Pittsburgh; Ed.D., University of Pittsburgh
- PHIL R. JACK (1955)**
Professor of Social Studies
 A.B., Pennsylvania State University; M.A., Pennsylvania State University; Ph.D., University of Pittsburgh
- HAROLD C. JONES (1960)**
Professor of Education
 B.S., California State College; M.Ed., University of Pittsburgh; Ph.D., University of Pittsburgh
- JOHN W. KELLER (1956)**
Professor of Social Studies
 A.B., Heidelberg College; M.A., Ohio State University; Ph.D., Ohio State University
- HAROLD E. KEMPER (1955)**
Professor of Education
Director of Admissions and Registrar
 B.S., Geneva College; M.Ed., University of Pittsburgh; Ph.D., University of Pittsburgh
- VINCENT F. LACKNER (1962)**
Professor of Education
 B.S., St. Vincent College; M.A., University of Toronto; Ph.D., University of Toronto
- GASTON LEBOS (1955)**
Professor of Industrial Arts
 B.S., Pennsylvania State University; M.Ed., Pennsylvania State University; Ph.D., University of Pittsburgh
- JOHN A. LONG, JR. (1963)**
Professor of Education
 B.S., Bloomsburg State College; M.S., Bucknell University; Ed.D., Pennsylvania State University
- MINOR W. MAJOR (1956)**
Professor of English
 A.B., Washington University; M.A., University of Kansas; Ph.D., University of Colorado
- WILBUR MARISA (1960)**
Professor of Languages
 A.B., Waynesburg College; B.F.T., American Institute for Foreign Trade, Phoenix, Arizona; Diploma of Graduate Studies, University of Madrid. Docteur D'L' Université de Paris (Leave of absence to West Chester College)
- HARRY B. MILLER (1963)**
Professor of Reading
 B.S., California State College; M.Ed., University of Pittsburgh; D.Ed., University of Pittsburgh
- MACY B. MOREE (1962)**
Professor of Speech and Hearing
 B.S., Central Missouri State College; M.A., University of Denver; Ph.D., University of Denver
- FRANK M. NAYLOR (1956)**
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