



SUMMER SCHOOL BULLETIN
STATE TEACHERS COLLEGE
CALIFORNIA, PENNSYLVANIA

To Make Your Work Enjoyable:

All classes are met in the forenoon.

Excellent social advantages are provided.

Cool and comfortable dormitories are used.

Electric coolers provide drinking water in the halls and the dormitories.

Concrete roads make travel by automobile easy.

Excellent railroad service is available.

A large variety of courses is offered.

The faculty is well trained and experienced in public schools.

The laboratories and class rooms are well equipped.

The library has the latest professional books and magazines.

Industrial Arts courses for the modern school are available.

The credits are transferable to other accredited colleges.

The college is approved by the American Association of Teachers Colleges.

The session closes in July permitting a vacation in August.

The expenses are very low.

THE STATE TEACHERS COLLEGE
AT CALIFORNIA IS A MEMBER
OF THE AMERICAN ASSOCIATION
OF TEACHER COLLEGES AND
MEETS ALL STANDARDS ESTABLISHED
BY THIS ASSOCIATION.

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1935 Summer Session

June 17 to July 27

REGISTRATION—JUNE 17

CLASSES BEGIN—JUNE 18

The 1935 Summer Session will be six weeks in length. The semester hour load is limited to six credits. The college will offer courses which are required for a degree in elementary or secondary education and for the special field of Industrial Arts education. Courses are offered to validate a college provisional certificate as a permanent license to teach.

STATE TEACHERS COLLEGE, CALIFORNIA, PENNSYLVANIA

ROBERT M. STEELE, *President*

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SOCIAL AND RECREATIONAL FEATURES

The afternoons will be free for a complete recreational program. Activities include tennis, mush ball, golf, swimming, archery, speed ball, deck tennis, shuffleboard, basketball, kick football, dancing, and hiking. Additional recreational games, or information and help in the teaching of games, will be given to groups upon request. Some of the events are:

Summer Session Picnic and Swimming Party
 Summer School Dance — July 12
 Dormitory Party or Picnic each week
 Stag Steak Dinner for all men
 Annual Athletic Round-up — June 21
 Tennis, Horse shoe, and Ping Pong Tournaments
 Mush Ball League

Student representatives will work out the details for the above program. Information concerning the social program will be under the direction of the Dean of Women and Dean of Men. The recreational activities will be directed by the physical education instructor.

PURPOSES OF THE SUMMER SESSION

1. To enable teachers in service to renew their partial elementary certificates.
2. To permit teachers in service to secure the Temporary Standard certificate or State Standard Limited certificate.
3. To offer work toward the completion of a degree in Education.
4. To aid students of the regular college year to make up deficiencies.
5. To complete the required work in less than the regulation time.
6. To offer the opportunity for self improvement.
7. It is not the purpose to admit recent high school graduates. Students who have not previously attended a college are admitted only in September.

Admission to the summer session does not guarantee a place in our enrollment for the regular semester.

STANDARD CERTIFICATE

Teachers who hold a partial elementary certificate and who desire information as to the remaining courses required for the Temporary Standard certificate should write to the Teacher Division, Department of Public Instruction. TO AVOID DISAPPOINTMENT, NO OTHER ADVICE SHOULD BE TAKEN.

Those who do not hold a partial elementary certificate but are working for a Standard certificate can receive only a State Standard Limited. This certificate is valid for three years. It is secured by completing the first two years of work of an approved elementary curriculum including at least six credits of student teaching.

GRADUATION

Students who desire to work toward the completion of a curriculum should consult with the Dean of Instruction for an evaluation of work to be completed. Evaluations cannot be made during the five day period immediately before or following registration day.

Students who complete the four year curriculum during the summer session will be required to return in May, 1936 for graduation exercises. Students expecting to complete a curriculum should check with the Registrar to make certain that all requirements have been met.

Students who are working toward the completion of a degree are requested to secure the regular catalogue for all details and requirements.

STUDENT TEACHING

The Demonstration School will be in operation during the summer and provision will be made for a limited amount of student teaching. This work is planned for teachers who have had satisfactory experience and who have previously attended this college. Arrangements for this work MUST BE MADE IN PERSON BEFORE JUNE 1 with Dr. Thomas M. Gilland, the Director of the Training School.

CURRICULA

Requirements for admission and graduation may be secured by special request. The regular catalogue outlines the course requirements for each curriculum. Be sure to secure a copy if interested in completing the necessary work for a degree.

MAKING COLLEGE CERTIFICATE PERMANENT

Students who receive a college degree after completing a four year curriculum must secure a College Provisional Certificate which is issued by the Department of Public Instruction if they wish to teach in the public schools of Pennsylvania. This certificate is a license to teach for only three years and is different from a degree. It indicates the subjects or the fields in which the holder is permitted to teach. ONE REQUIREMENT TO MAKE THE COLLEGE PROVISIONAL CERTIFICATE A LIFE LICENSE TO TEACH IS THE COMPLETION OF SIX ADDITIONAL CREDITS, three in education and three in the field for which the certificate is valid.

Courses described in this bulletin may be taken to validate a College Provisional Certificate for a life license to teach PROVIDED it was not taken to satisfy the degree requirements, and PROVIDED it applies to the proper field. Students who wish to pursue courses for this purpose should consult the Dean of Instruction.

ROOMS

A room should be reserved in advance by sending a registration deposit of \$10.00 with your first, second, and third choice of room. A room will not be reserved without a deposit. IF A CLASS SCHEDULE ACCOMPANIES THIS DEPOSIT, COURSE RESERVATION WILL ALSO BE MADE. The room reservation will be held until 3 o'clock on the regular Registration Day. At that time, the reservation will be withdrawn unless students notify the college by wire or phone of their intention to arrive at the college later. The deposit will not be returned unless application for return is received at least three weeks before the opening of the college.

LIVING OUTSIDE DORMITORIES

Women will not be permitted to room or board outside of the dormitories except in the home of parents, grandparents, brother or sister, uncle or aunt, unless special permission has been granted by the President. ARRANGEMENTS MUST BE MADE WITH THE PRESIDENT BEFORE THE ROOMS ARE ENGAGED. No student will be permitted to room in houses not approved by the Housing Committee. Any change of address must be approved by the Dean of Women prior to the change.

EXPENSES EFFECTIVE FOR SUMMER SESSION OF 1935

*Advance Registration Deposit.....	\$10.00
Contingent fee per credit (Minimum \$15)	5.00
Student Activity fee.....	2.50
Out-of-state student (additional).....	35.00
Board, room and laundry.....	42.00
Industrial Arts fee (additional).....	6.00
Degree fee (graduates of 4 year curriculum only).....	5.00

*This deposit will be credited to regular fees due on registration day.

A detailed statement concerning Fees, Deposits, and Repayments may be found in the regular catalogue.

SCHEDULES SHOULD BE MADE IN ADVANCE

Students may save considerable time on registration day by paying a \$10.00 registration fee in advance and requesting a schedule to be made out for them. SCHEDULES WILL NOT BE MADE IN ADVANCE UNLESS SUCH FEE IS PAID. Classes will be closed when the maximum number for good work is reached. A schedule made out in advance will guarantee a place in the class.

A student should decide as early as possible what courses he desires for the summer session.

Make checks payable to State Teachers College and send proposed schedule, registration fee, and request for room reservation to Registrar, State Teachers College, California, Pa.

FACTS TO OBSERVE IN MAKING A CHOICE OF COURSES

In the selection of courses students should keep in mind their particular needs as to type of certificate, course requirements, and means of travel. In case of conflicts, students should consult the Dean of Instruction. Schedules will be made for students as requests are received provided the advance registration fee or room reservation deposit accompanies the request. Classes will be closed when the maximum enrollment for good work is reached. Courses in which there are fewer than ten students enrolled will not be given. The assignment of instructors to the various courses may be changed.

The required courses for each curriculum are published in the regular catalogue. Students who wish to learn the subjects they need to complete a curriculum should consult the regular catalogue which may be secured at the General Office. In case of any question relative to the proper course needed, consult the Dean of Instruction.

ART

1. **Art (1).**
2 credits Daily 9:50-11:05 Room S201
Elementary study and practice in the technique of drawing, design and color will be presented in this course. The aim of the course is to give the student the fundamental knowledges and techniques used in public school art.
LEACOCK
2. **Art (2).**
1½ credits M. T. Th. F. 9:50-11:05 Room S201
This course presents the elementary industrial arts with practice in the making of individual and unit projects with emphasis on skills. Paper and cardboard construction, bookbinding, modeling, soap sculpture, and block printing are stressed.
LEACOCK
3. **Art (4).**
2 credits Daily 9:00-9:50 Room S201
This course serves as an introduction to sculpture, architecture, painting and the minor arts. Emphasis is placed on the elements and principles of art as an aid to the student in recognizing and enjoying works of art.
LEACOCK
4. **Art Crafts.**
3 credits Daily 11:05-12:20 Room S201
This course is designed for the teacher of special classes and elementary school clubs. A study of the design and manipulation of the various materials suited to handwork includes the making of projects in jewelry and metalry using copper, brass, pewter, silver, leather, linoleum block printing, batik, weaving, wood, and tin can toys.
LEACOCK

EDUCATION

1. **Diagnosis and Remedial Treatment in Elementary School Subjects**
3 credits Daily 11:05-12:20 Room D201
This course deals with the diagnosis and remedial treatment of difficulties in reading, arithmetic, spelling, and writing. Much more time will be spent on reading than on other difficulties. The course will include lectures and demonstrations by the instructor as well as reading and case studies by the students. The course is designed primarily for school principals, supervisors and teachers in service. Practical work may be done in the Noss Demonstration School, the Reading Clinic and in the schools represented by the students.
STUART
2. **Educational Measurements.**
2 credits M. T. Th. F. 9:50-11:05 Room 205
The course considers the simpler statistical measures with particular emphasis on their application to classroom work. The principles underlying the construction of valid, reliable objective tests are examined, and practice is given in the making of classroom tests in the various fields of subject matter. A study is made of representative standardized tests. Some attention is also given to the vocabulary of measurement. The work will be so organized that the needs of the elementary, secondary, and industrial arts teacher will be met.
NEAGLEY
3. **Guidance**
2 credits Daily 9:00-9:50 Room H 103
This course will deal with the many problems of consulting and guidance work in the junior and senior high schools. Educational, social, and vocational guidance will be emphasized. Some attention will be paid to the meaning, scope, and methods involved in the guidance movement.
WILSON
4. **History and Philosophy of Education.**
4 credits Daily 7:30-9:00 Room 205
This course shows by historical treatment how we arrived at our present conceptions of education. The historical foundations of modern education are considered. Emphasis is placed on the social, economic, political, and religious factors that have influenced elementary and secondary education. Current practices are considered in the light of present theories and principles as advocated by our foremost educators.
NEAGLEY

5. **Introduction to Teaching.**
3 credits Daily 11:05-12:20 Room 205
This is the first course in Education. It furnishes the basic technical vocabulary and concepts for the understanding and preparation of our educational system.
NEAGLEY
6. **Problem Cases in Elementary Schools: in Secondary Schools.**
3 credits Daily 9:50-11:05 Room H103
This course will give actual experience in techniques for individual testing; techniques in case study work; and application of the process involved in mental hygiene. The course will be adapted to the specific needs of the class, especially to the field in which the student is working.
WILSON
7. **Problems of Elementary Administration and Supervision.**
3 credits Daily 7:45-9:00 Room D101
A course offering an intensely practical approach to a study of the administrative and supervisory functions of the elementary school principal. The elementary school principal will receive aid in the analysis of his problems. The prospective or aspiring elementary school principal will receive a background of information which will prove to be invaluable when he becomes an elementary principal. The college graduate who is teaching in the elementary school will be given help in building up a better understanding of the work of the elementary school.
GILLAND
8. **Problems of Secondary Education.**
3 credits Daily 9:50-11:05 Room H 16
This course deals with the development, organization and problems of secondary education. It emphasizes the special functions of the Junior High School. Much time is given to admission requirements, ability grouping, program of studies, departmentalization, plan of promotion, homogeneous grouping, staff, housing and equipment of various types of high schools.
MIDDLESWARTH
9. **Psychology (1).**
3 credits Daily 9:50-11:05 Room S102
This is a general course in Psychology which studies the human body as a responding mechanism subject to the laws of cause and effect. How the teacher may direct stimuli to produce a better individual is stressed.
KERSTETTER
10. **Psychology (2).**
3 credits Daily 7:45-9:00 Room H103
This is the second course in Psychology which deals with the learning process. Many specific applications will be made to the teaching problems which arise in the class room.
WILSON
11. **Psychology of Speech.**
3 credits Daily 11:05-12:20 Clio
This course presents the psychological and physiological approach necessary for the recognition, classification, and treatment of speech disorders, combining class work with case studies and clinical observations. It is formulated to give the student necessary knowledge and practice in correcting minor defects and in developing an understanding of major defects. This is an education course especially designed for college graduates.
MASE
12. **Teaching of Primary Subjects.**
3 credits Daily 7:45-9:00 Room D201
The several subjects here considered are spelling, language, and social studies. The course is designed to help students to evaluate objectives, activities and materials in the teaching of these subjects in light of modern educational theory and today's psychological knowledge. Attention will be given to the place of these school subjects and the problems of applying them to the activity program. The class will observe in the Noss Demonstration School.
STUART
13. **Teaching of Reading.**
3 credits Daily 9:50-11:05 Room D201
The chief purposes of this course are to acquaint students with reading objectives, activities and materials for the elementary grades, and to lead them to realize the place and function of reading in a school program designed to meet present social conditions. Opportunity to meet the individual needs of each student will be afforded. The class will observe the teaching of reading in each grade of the Noss Demonstration School.
STUART

14. Technique of Teaching.

2 credits M. T. Th. F. 11:05-12:20 Room H16

This course deals with lesson planning, assignments, unit planning, directed study, diagnostic and remedial teaching, drill and questioning. The work will be adapted to the individual needs of the students.

MIDDLESWARTH

15. Visual Education.

1 credit M. T. Th. F. 9:00-9:50 Room S102

In this course attention will be given to verbalism, school journey, object, specimen apparatus, model, pictorial representation, and the museum. A limited amount of reading, reports, and attention to the laboratory technique is required.

KERTETTER

16. Visual Education.

3 credits Daily 7:45-9:00 Room S102

This is a complete course which considers the psychological principles underlying "Visual and Other Sensory Aids"; in forming correct initial concepts; the collecting and assembling suitable teaching material; and the technique of using the same in effective teaching with special emphasis upon definite fields of teaching. Researches in the field of Visual Education are checked and evaluated; magazines, text and reference books on Visual Education are read and discussed.

KERSTETTER

ENGLISH**1. English (1); (2).**

3 credits Daily 9:50-11:05 Room D101

The fundamentals underlying both spoken and written English and their application in paragraph writing are stressed in English (1). English (2) further emphasizes fundamentals and their application in theme development. Attention will be given to the individual needs of the student in freshmen English.

PARDOE

2. English (3).

3 credits Daily 11:05-12:20 Room D101

This course emphasized advanced composition, including short story writing, and offers suggestions for the teaching of English in the elementary grades. This course is offered for teachers of the elementary grades only.

PARDOE

3. English (3). (School Paper)

3 credits Daily 9:00-9:50 Room 206

This course is for high school teachers. It will provide an opportunity to study in theory and practice the task of publishing the school newspaper. Copies of elementary school, junior high school and senior high school papers ranked highest in the state by the Pennsylvania School Press Association will be available for study. A journalism laboratory equipped as a model school newspaper staff room will be available for the use of the class, and the Industrial Arts Department Print Shop will provide the means for publishing a public school newspaper. The class may be organized as a staff to publish an issue of the PUBLIC SCHOOL CHRONICLE the first edition of which was published by a class of teachers in service in the fall of 1934.

HUGHEY

4. English Activities.

3 credits Daily 9:50-11:05 Clío

This course in elementary speech training treats the specific individual needs, assisting the student in improving his own speech and voice. It develops an understanding and appreciation of the various phases of speech so that the teacher can help others to present their ideas in a more pleasing and acceptable manner.

MASE

5. Literature (1).

3 credits Daily 7:45-9:00 Room 206

This course is a survey of English and other foreign literatures to give the student the background necessary for the enrichment of his ability to appreciate literature. This course presents in English translation literatures of continental Europe, none of which was made available in the former normal school curricula.

HUGHEY

6. Literature (2).

3 credits Daily 11:05-12:20 Room 206

This course is a college survey of American Literature comparing the present day artistic standards and lines of thought with those of the past. The aim is to give fundamental knowledge and develop appreciation in this field.

HUGHEY

7. Philology.

3 credits Daily 9:50-11:05 Room 116

This course aims to give a knowledge of and create an interest in current word usage through a careful study of past and present trends in language development. One unit is designed to help the student solve some of his most difficult grammar problems and teach this subject more effectively.

KELLER

8. Shakespeare.

3 credits Daily 7:45-9:00 Room 116

This course seeks to give students an appreciative knowledge of Shakespeare through the intensive study of some of his greatest plays and the outside reading of others. The number of plays included will be determined by the class and the time.

KELLER

9. Short Story.

3 credits Daily 11:05-12:20 Room 116

This is an introduction to the French, Russian, English, and American short story, with particular emphasis on the American. Representative stories are studied in class, and others read outside. Attention is given to evaluating the merit of stories and compiling appropriate lists for teaching. Those interested in story writing will be permitted to substitute an original story for part of the supplementary reading.

KELLER

10. Speech Problems.

2 credits M. T. Th. F. 7:45-9:00 Clío

This course is designed to introduce the student to the field of speech correction, presenting the physiological and phonetic approach necessary for the recognition and management of minor speech disorders. The study of cases is combined with regular class work to make this a valuable course for all elementary teachers and teachers of high school English.

MASE

FOREIGN LANGUAGES

Students interested in courses in Latin and Modern Languages should make inquiry concerning these courses meeting individual needs.

1. Latin.

3 credits Daily 11:05-12:20 Room H101

This course is intended for students who have had three years of high school Latin. Attention will be given to sight reading, translation and the principles of Latin syntax. Special emphasis is given to the problems arising in the teaching of Latin.

CARROLL

2. French.

3 credits Daily 9:50-11:05 Room H101

This course consists of a review of French grammar, reading, composition and dictation. Emphasis is placed on French conversation in the class room. Pre-requisite: Two years of high school French or the equivalent.

CARROLL

3. German.

3 credits Daily 7:45-9:00 Room H101

This course deals with grammar, pronunciation, conversation and reading of simple prose.

CARROLL

GEOGRAPHY**1. Physiography.**

3 credits Daily 11:05-12:20 Room S202

This course is of practical value to teachers of geography, biology, history, general science, and allied subjects. A systematic study is made of land forms, their changes, and their influences on man. Teachers in service will find the content of this course suggestive of a number of new projects of a practical nature for use in the public schools. Those who are taking geography as a major will find it an exceptionally beneficial correlative course. Its cultural value appeals to all students.

HARDING

2. Principles of Geography.

3 credits Daily 9:50-11:05 Room S202

This course is organized to give teachers an opportunity to acquire knowledge of the objectives of geographic education, the subject matter, and the best methods of presentation. The content of the course is especially useful to teachers of geography and related fields.

HARDING

3. World Problems in Geography.

3 credits Daily 7:45-9:00 Room S202

During this course a comprehensive study is made of the continents of the world. The content and scope of the course is such that it can be used to meet certain requirements in geography for those who are irregular in their curriculum. This course is particularly important to teachers of geography and history, in that it furnishes usable material in the teaching of geography and stimulates a deeper interest in world affairs.

HARDING

HANDWRITING**1. Handwriting.**

1 credit M.W.F. 9:00-9:50 Room D201

This course is designed to give the student both the technical and the pedagogical equipment essential to the teacher of handwriting. To meet the former, both pen and blackboard work are stressed; to meet the latter, reference work on the psychology of handwriting, demonstration lessons, and student participation in teaching are emphasized.

PARDOE

HEALTH AND PHYSICAL EDUCATION**1. Personal Health.**

3 credits Daily 9:50-11:05 Room H102

The purpose of this course is to arouse a sane and personal philosophy of health, bearing out the slogan: "Health in Education and Education in Health." The course covers such items as growth and development, unity of mind and body, science and superstitions, sexology and reproduction, bones and muscles, blood and the circulation, food and nutrition, physical defects and deformities.

SCHREINER

2. Physical Education (1); (2).

1 credit M.T.Th.F. 7:45-9:00 Room H20

This course will specialize in several activities chosen by the class. Work in Eurythmics, games, relays, and similar activities will be presented.

SCHREINER

3. Physical Education (3); (4).

1 credit M.T.W.Th.F. 9:00-9:50 Room H20

This course will stress those activities which the teacher needs for the physical education work in the first six grades of the public schools. Practical application of the work will be possible through the cooperation of the Demonstration School.

STEERS

4. School Hygiene.

3 credits Daily 11:05 12:20 Room H102

This course is devoted to the health of the school child, emphasizing his growth and development and training in wholesome health ideals, attitudes and habits. The course stresses methods of presenting the material given in the new State Course of Study.

STEERS

INDUSTRIAL ARTS

Shops are open during the entire day for work in wood, sheetmetal, printing machine and electricity. Various types of drawing and design work will also be offered. THOSE WHO ARE INTERESTED SHOULD WRITE FOR THE SPECIAL INDUSTRIAL ARTS BULLETIN WHICH ANNOUNCES THE SCHEDULE OF CLASSES FOR THE SUMMER.

MATHEMATICS**1. Analytic Geometry.**

3 credits Daily 9:50-11:05 Room 111

A course based on coordinate graphing and loci solutions. It has for its content the conic sections and their applications in the arts and industry. Should be preceded by trigonometry.

SALISBURY

2. Arithmetic (1).

3 credits Daily 11:05-12:20 Room 111

This course has for its purpose acquainting the teacher with the history, philosophy, sociology and psychology underlying the pedagogy of number learning. Methods of teaching number understandings and processes are developed in harmony with the most dependable experimentation in this field.

SALISBURY

3. Calculus (1).

3 credits Daily 9:50-11:05 Room S203

This is an introductory calculus course which studies the function of a variable; derivatives of algebraic functions; elementary applications of derivatives; and simple integration.

BERNSTORF

4. College Algebra.

3 credits Daily 7:45-9:00 Room S203

This is the first course in College Algebra and emphasizes the quadratic equation; mathematical induction and its use in the binomial theorem; series, and Horner's method of finding the approximate roots of an equation.

BERNSTORF

5. College Trigonometry.

3 credits Daily 7:45-9:00 Room 111

This is a course in angular functions and their uses in solutions, triangulation and the elementary principles of engineering. Usually preceded by mathematical analysis or four years of high school mathematics.

SALISBURY

6. Math Analysis.

3 credits Daily 11:05-12:20 Room S102

This is a course in general mathematics intended to serve as an introduction to the more specialized courses in trigonometry, analytics, college algebra, and elementary calculus. The material is sufficiently individual to be adapted to the needs of students with widely different mathematical background.

CUNNINGHAM

MUSIC**1. Music (1).**

2 credits Daily 7:45-9:00 Room 209

This course is planned to prepare the regular grade teacher to teach her own music in the first three grades under supervision. Definite and specific study in ear training, in the singing of the scale, and the reading of music is begun. The best practical methods known are discussed and used in presenting the materials.

HALSTEAD

2. Music (2).

1½ credits Daily 9:00-9:50 Room 209

This is a continuation of Music (1), progressing into more difficult and interesting material. The signing of two and three part music is one of the accomplishments of this course. It is especially designed to prepare and assist the regular grade teacher to teach her own music in grades 4, 5 and 6.

HALSTEAD

3. Music (3).

2 credits M.T.W.Th.F. 11:05-12:20 Room 209

This course affords an opportunity of listening to the best music in its different forms. Attention is given to the development of music through the ages along with interesting information concerning the greatest composers and artists. Ways and means of developing appreciation are studied.

HALSTEAD

SCIENCE**1. Botany (1).**

3 credits Daily 9:30-11:05 Room S101

This is a course based upon lecture and laboratory work. Together with Botany II it forms a years work in the study of plant biology. The material of the course is selected from the biology of the spermatophytes. The study is based upon structure and functioning of the various plant body parts—root, stem, bud, leaf, flower, together with interesting and important variations of these, the evolution and the economic importance of these plants in general.

HURST

2. Botany (2).

3 credits Daily 9:30-11:05 Room S101

This course is the complement of Botany I. It is based upon lecture and laboratory work. The subject matter of the course includes the biology of the thallophytes, bryophytes and pteridophytes. The morphology and physiology of typical forms selected from these great groups, together with the economic importance of especially the fungi and the development in space and time of these groups, comprise the basis for the work of the course.

HURST

3. **Chemistry (1).**
3 credits Daily 9:30-11:05 Room S3

This is a laboratory course in general chemistry, which involves the basic principles and theories of the subject, common gases, the acidic elements and their radical ionization, equilibrium, chemical velocities, the periodic arrangement of elements, and radio-active elements. This course will be offered on the unit basis with the aid of, instructional sheets.

SUTHERLAND

4. **Chemistry (2).**
3 credits Daily, 9:30-11:05 Room S3

This is a laboratory course dealing with metallic elements, atmosphere, nitrogen and ammonia, carbon and hydrocarbon compounds, foods and nutrition, photochemistry, colloidal chemistry, alkali metals, and electro-chemistry. Major emphasis in the laboratory is placed upon the segregation, identification, and classification of metallic groups and their common compounds. This course will be offered on the unit basis with the aid of instructional sheets.

SUTHERLAND

5. **Chemistry (3). (Qualitative Analysis.)**
3 credits Daily 7:30-9:00 Room S3

This is a laboratory course in analytic chemistry, with primary emphasis on the separation and identification of the common elements and compounds. This course will be offered on the individual instruction basis with the aid of instructional sheets, conferences, and laboratory analysis.

SUTHERLAND

6. **Physics (1).**
3 credits Daily 7:30-9:00 Room S1

This is a laboratory course in mechanics, sound and heat. Lectures and demonstrations will supplement the experiments. No knowledge of advanced mathematics is required.

CUNNINGHAM

7. **Physics (2),**
3 credits Daily 7:30-9:00 Room S1

This is a laboratory course in magnetism, electricity and light. In addition to the individual laboratory experiments, lectures and demonstrations will be given. No knowledge of calculus is assumed.

CUNNINGHAM

8. **Science (1). (Educational Biology).**
3 credits Daily 11:05-12:20 Room S103

This course deals with the fundamental principles and theories of biology which are applicable to the work of a teacher. It deals with functions of the cell, biological background of education, the nervous system, endocrine secretions, heredity, etc. This course gives a valuable background for students of psychology.

SUTHERLAND

9. **Science (2).**
3 credits Daily 11:05-12:20 Room S101

This is a survey course presented from the standpoint of appreciation rather than the mastery of a group of facts which may be used in the work of the teacher. The latter element is never entirely omitted as subject matter is being selected or presented. The course can be viewed as being the complement of Science 1 and its materials are drawn from the fields of astronomy, physics, chemistry, geology, meteorology. The lecture-demonstration method is generally used in presenting the subjects under consideration.

HURST

10. **Science (3). (A Field Course in Nature Study).**
3 credits Daily 7:45-9:00 Room S103

This is an elective course in Nature Study in which an attempt is made to provide actual field collecting experience, including the collection, preparation, mounting, and identifying of the objects as will be found over a wide territory and in many types of environments. Students will be encouraged to select some one phase of field work as a special project. In addition, training for leadership of Boy Scout and Girl Scout groups is provided by giving actual experiences in camping, outdoor cooking, camp fire entertainment and pointing the way toward becoming nature counsellors. PART OF THIS COURSE WILL BE SPENT IN WEEK-END CAMPING TRIPS TO SUCH PLACES AS COOK'S FOREST, JUMONVILLE, OGLEBAY PARK, ETC. THE COURSE WILL BE LIMITED TO TWELVE STUDENTS. THOSE WHO ARE INTERESTED SHOULD WRITE FOR DETAILS AND MAKE APPLICATION AS EARLY AS POSSIBLE. ALL PLANS MUST BE COMPLETED BEFORE JUNE 1.

WALKER

11. **Zoology (1).**
3 credits Daily 7:30-9:00 Room S101

This is a course based upon lecture and laboratory work. The forms studied are selected from the protozoans, the invertebrates and the vertebrates, the frog being the typical form selected from the latter. The principles of the subject are stressed as these forms are studied rather than the forms themselves, eg.—morphology, physiology, reproduction, development together with the great generalizations of the science.

HURST

12. **Zoology (2).**
3 credits Daily 7:30-9:00 Room S101

This is a course based upon lecture and laboratory work. The material, as typical forms not studied in Zoology I, is selected from the various phyla of the invertebrate. The study of these forms is based upon morphology, physiology and development of these animals with the implications of variations of these. The ecology and evolution of these forms, together with their places in the economy of man are also included.

HURST

SOCIAL STUDIES

1. **American Government.**
3 credits Daily 11:05-12:20 Room 105

This course presents the basic principles of American government, the machinery through which it works and some of its major problems. A careful study is made of the federal, state and local governments, dealing particularly with Pennsylvania.

EDINGER

2. **Civic Education.**
3 credits Daily 7:45-9:00 Room H16

This course is designed to give the student a constructive background for citizenship training and aims to show how the school may be made real active life, not merely preparation for living. It deals with those things which society expects and finally accepts as a part of its democratic ideals.

MIDDLESWARTH

3. **Economics.**
3 credits Daily 9:50-11:05 Room 105

This course deals with the fundamental principles of economics which deal with production, distribution, consumption, and exchange. This study considers such present day problems as public finance, business organization, monetary problems, insurance banking and labor problems.

EDINGER

4. **European History (1).**
3 credits Daily 7:45-9:00 Room 202

This course deals with the political and social development of Europe up to 1815. An attempt is made to emphasize those features which have a definite bearing on world affairs of today.

GILMORE

5. **History of Civilization.**
3 credits Daily 11:05-12:20 Room 202

This course stresses the development of institutions which have been of a liberalizing nature and considered valuable by present civilization. The political, economic, ethical, domestic, and religious types of culture are evaluated through a historical treatment.

GILMORE

6. **Social and Industrial U. S. History.**
3 credits Daily 7:45-9:00 Room 105

This course presents a study of the numerous social and economic forces which have been influential in developing our American institutions. This background develops the ability of students to evaluate present problems. Consideration is also given to some of the more recent agencies set up to solve our social and economic difficulties.

EDINGER

7. **U. S. History. (1)**
3 credits Daily 9:50-11:05 Room 202

This course shows the development of American life to the close of the Civil War. An evaluation of our American ideals and the growth of our particular type of organization in government are stressed.

GILMORE