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BUILDINGS OF THE CALIFORNIA POLYTECHNIC SCHOOL, NOW BEING CONSTRUCTED.

## FIRST ANNUAL CATALOGUE

OF THE

# California Polytechnic School

## SAN LUIS OBISPO, CALIFORNIA,

MAY, 1903.



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#### FACULTY.\*

#### LEROY ANDERSON, DIRECTOR,

Agriculture; Animal and Dairy Industry.

B.S., 1896; M.S.A., 1897; Ph.D., 1902, Cornell University; Fellow in Agriculture, Cornell University, 1896–7; Assistant in Dairy Husbandry, Cornell University, 1897-1900; Instructor in Animal and Dairy Industry, University of California, 1900-2.

#### GWENDOLYN STEWART,

Domestic Science; Matron of the Dormitory.

B.S., 1900, Stanford University. Graduated Normal Course in Domestic Science, Pratt Institute, 1902; Instructor, School of Domestic Science, Pittsburg, Pa., 1902–3.

OSCAR LESLIE HEALD, - - - Carpentry and Iron Work.

Graduated Normal Training Course, Throop Polytechnic Institute, 1903.

\* Other instructors will be appointed before September, 1903.



San Luis Mountain. VIEW FROM THE SCHOOL, LOOKING WESTWARD.

Bishop Mountain.

#### LOCATION AND PURPOSE.

The California Polytechnic School is a State institution established at San Luis Obispo under an act of the Legislature of 1901. The government of the school is vested in a board of trustees, consisting of the Governor and Superintendent of Public Instruction as ex officio members, and of five persons appointed by the Governor for a term of four years each. The school is located one and one half miles north of the center of the City of San Luis Obispo, on high ground commanding a beautiful view of town and valley.

"The purpose of the school is to furnish to young people of both sexes mental and manual training in the arts and sciences, including agriculture, mechanics, engineering, business methods, domestic economy, and such other branches as will fit the students for the non-professional walks of life."

The school aims to supply a need which is felt not only in California, but also in every other State in the Union. That need is an institution which will give boys and girls a training in the arts and sciences which deal peculiarly with country life—the life of the home, the farm, the orchard, the dairy, and the shop. In this present day, when science is doing so much to unravel the mysteries concerning plant and animal life, it is important that the State provide a school where the facts and principles unfolded by science can be demonstrated to the boy and girl, who will return to their home and make its life more attractive, more livable, and more remunerative.

The age of entrance to the school is placed at fifteen years, because it is believed that as a rule children younger than this can not do the serious kind of work which the school demands, and because students coming to the school must have had a previous training equivalent to that covered by the usual grammar school course. Moreover, the majority of children leave school when they have completed the grammar grades. The chief reason for so doing is that they either wish to, or must, do something to earn a living. This is particularly true in country communities where there are no schools that teach the things pertaining directly to farm life. It is the children of the country, therefore, who most need an institution of the kind here planned; and to accommodate them at the most opportune period they are admitted at the average age of finishing the grammar school.

No school is doing its duty to its students which loses sight of the studies that treat most closely of man's dealing with man and his duties as a citizen. Acting upon this principle, we have added not a little academic work to the curriculum. The more important of these are English, history, and economics. The larger portion of the student's time, however, is occupied with the practical problems which will be met in the pursuit of his vocation and with a study of the sciences that lead to a more ready solution of those problems. The main lines of work undertaken by the school are agriculture, domestic science, and mechanics—each interspersed with the same essential academic branches and sciences.

This school does not occupy a place in the regular school system of the State. As that system is understood, it begins with the grammar school and extends through the high school to the State University; i. e., pupils are admitted to the high schools upon recommendation from the grammar grades, and to the university upon recommendation from accredited high schools. The California Polytechnic School is not an integral part of this system. It receives students who are recommended from the grammar schools, but it does not prepare its students for entrance to the university. Its course of study is arranged solely in view of the needs of the boy and girl who are going to earn a livelihood after completing its course. It does not seek to prepare them to enter a higher institution of learning, but its aim is to prepare them for an active industrial life. There will no doubt be students attending the school who will find that they wish to climb higher in the ladder of learning. We will do all we can to help such to attend a university, but we can not arrange our course of study to that end and to the disadvantage of the large majority who must go to work in the world as soon as they have left our doors.

It is not our purpose to establish a school of engineering or of architecture. As those terms are to-day understood, they refer to courses of study in a college or university which presuppose a high school training. Since this school is of like grade to a high school, it is apparent that we should not be expected to give a training equivalent to a university.

#### EQUIPMENT OF THE SCHOOL.

#### BUILDINGS.

Two buildings are now in process of construction and will be ready for occupancy in September. Both are planned after a modified mission style of architecture and are two stories in height, with a well-lighted basement. The buildings are heated by steam and lighted by electricity.

The Recitation and Administration Building is 47 by 100 feet, and has a concrete foundation with Los Berros stone from the grade line to the first floor. The remainder of the structure is of wood, covered with a metal lath and cement. The roofing is of metal tile. The basement contains a temporary dairy room, a temporary carpenter shop, storage rooms, and a general lavatory for boys. The first floor contains the Director's offices, library, lecture room and laboratory for chemistry and physics, lecture room and laboratory for botany and entomology, photographic dark room, and girls' cloak room and lavatory. The second floor contains an assembly room, with dressing room, two drawing rooms, and two class rooms.

The Dormitory is constructed in the same manner as the recitation building, except that the basement and foundation walls are entirely of concrete. Its dimensions are 40 by 100 feet. Its purpose is to provide a home on the school grounds for a few of the teaching staff and for as many students as can be accommodated. It contains thirty single rooms, each with a closet, a parlor, dining-room, kitchen, laundry, and five bath-rooms. Provision is made for one student in a room. Each room is furnished with a single iron bedstead, woven-wire spring, sanitary mattress, pillow, white spread, study table, two chairs, dresser, and a rug covering most of the floor.

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#### THE FARM.

The farm consists of 280 acres of land, the most of which is rolling and typical of a large section of the land of the coast counties. The soil is varied in character, comprising rich, black bottoms, adobe, loams, and the rocky soil of the steep hillside. The farm is traversed by Brizzolero Creek, the full rights to which are deeded to the school, and from which water may be used for irrigation purposes. On the hillside a half mile to the east, and 350 feet above the school buildings, are two springs which furnish pure water for domestic use.

The farm is in a thermal belt, which is so free from frost that citrus fruits can be grown. A small orchard now on the farm contains bearing trees of apples, pears, quinces, peaches, almonds, plums, prunes, cherries, oranges, limes, and grapes. Though the number be few, they prove that all the fruits named will thrive on the school farm. The larger portion of the farm has been cultivated for many years in the production of hay and grain. Some portions are much depleted in fertility and will furnish good experimental ground in demonstrating how such soil may be brought back to its former productiveness.

The beginning of an equipment of livestock was undertaken in the fall of 1902, by the importation of five thoroughbred Ayrshire cattle from Canada and one Shorthorn from the University of Wisconsin. Other dairy animals will be added as the means permit, and swine and poultry will soon become a part of the farm equipment. It is expected that all dairy and poultry products used in the dormitory will be produced on the farm.

Two small cottages and a small barn now constitute the farm buildings. New buildings will be erected from time to time in a location convenient to the school buildings. Those contemplated during the next two years are a dairy barn, horse barn, storage barn, swine pens, poultry houses, and a silo. An equipment of tools and machinery is being added as occasion demands and money is available.

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#### THE COURSE OF STUDY.

The course of study, as detailed below, covers a period of three years. The work of the first two years is prescribed for all students, while at least one half of that of the third year is elective. Under certain conditions, students may be allowed choice of subjects during the second as well as the third year of the course. During the year 1903-4 no work will be given except that specified for the "First Year." In succeeding years more latitude will be allowed entering students who may have taken the equivalent of some of our subjects in other schools. Upon completion of the course the student will be given a certificate indicating the work done and the student's proficiency therein. Girls will study the same branches as the boys, with the exception of mechanics and practical agriculture, in place of which they will have industrial work in domestic science. This course of study is subject to change.

#### COURSE OF STUDY-(Boys).

First Year.	Hours Credit per Week.	Hours of Recitation or Work.
AGRICULTURE,-horticulture, gardening, making roads, etc	2	6
MECHANICS,-carpentry, construction of simple buildings, ma-		
sonry	2	6
DRAWING,—introductory to building design	2	5
PHYSICAL GEOGRAPHY, SOILS AND PLANT STUDY	3	5
COMMERCIAL ARITHMETIC, ACCOUNTS, AND ALGEBRA	5	5
ENGLISH COMPOSITION	3	3
Second Year.		
AGRICULTURE,—animal industry and dairving	2	6
MECHANICS,-carpentry and iron work, construction of build-		
ings	<b>2</b>	6
DRAWING,-design of farm buildings	1	3
CHEMISTRY AND INSECT STUDY	3	5
GEOMETRY, TRIGONOMETRY, AND SURVEYING	5	5
ENGLISH COMPOSITION.	3	3
Third Year.		é .
REQUIRED WORK:		
Physics and Agricultural Physics	5	5
HISTORY AND GOVERNMENT	5	5
ELECTIVE WORK:		
DRAWING,-building design	2	5
AGRICULTURE, HORTICULTURE, IRRIGATION, FORESTRY, ANIMAL INDUSTRY, DAIRYING, ETC. For those who expect to become farmers	5	15
MECHANICS,—construction of buildings, plumbing, wiring, iron work, etc. For those who expect to become me-	5	15
Chamics	ບ ະ	10
DOMESTIC SCIENCE, for girls	ы	10

#### PLAN OF INSTRUCTION.

Agriculture. Instruction will be by class-room exercises, lectures and recitations, and by actual practice by the student so far as possible. In agriculture the work will consist of a study of soils, forage crops, fertilizers and kindred subjects; in horticulture, planting, pruning, spraying and care of fruit trees and vines, gathering, preserving and marketing fruits; in animal industry, a study of the different breeds of livestock, their breeding, feed and care; in dairying, milk testing and butter and cheese making; in irrigation, laying out irrigation ditches and checks and irrigating orchards and field crops; in forestry, tree planting in the hills and mountains and the preservation of forests. The practice in all agricultural subjects will be planned according to the work needing to be done at each season of the year.

**Domestic Science.** This is the industrial work for girls, and its aim is to help them to a more thorough understanding of the many duties required of a housekeeper. The course is especially designed for girls who expect to do housekeeping. The work includes sewing, dressmaking, millinery, cooking, preparing and serving meals, and a study of the home as to its construction, heating, lighting and care. The practice of cooking is supplemented by a study of foods and food principles with reference to their source, composition, nutritive value and cost. The courses in chemistry, physics, and insect and plant life are also found helpful in domestic science work. Although the courses in this department are not outlined in the course of study given above, the work will be offered the first year for any girls who may wish to enter the school.

**Mechanics.** Instruction in this line will tend largely in the direction of the building trades. This is a natural outcome of the conditions as they appear to-day. One of the appropriations for the support of the school is to purchase building material which it is expected will be mainly used by students in the actual operations of building. The first work will be upon such frame buildings as are needed by the farm or shops. Experience may be expected in masonry, such as building walks, culverts, and foundations. And as the student advances in proficiency it is hoped to give him instruction in iron work, plumbing, steam fitting, electric wiring, etc. Instruction in mechanics is planned for the needs of both the farmer and the boy who expects to become a mechanic.

#### ADMISSION OF STUDENTS.

The school is open to any boy or girl upon the following conditions: Applicants must be at least fifteen years of age, and must give satisfactory evidence of good moral character and of good behavior.

Applicants thus qualified will be admitted without examination upon presenting a certificate of promotion from any grammar school (eighth grade) of the State.

Applicants who do not hold a grammar school certificate, but who submit a recommendation from their last teacher or their Superintendent of Schools, will be admitted upon satisfactorily passing an examination in English, arithmetic and United States history. The examination in English will consist of a test of the applicant's ability to read, write and spell; in arithmetic, it will include all subjects as far as fractions, decimals and percentage; in history, the leading facts as covered in the usual grammar school course. The examination for 1903 will be held in the school buildings on Thursday, September 10, at 9 A. M.

Applicants should enclose their grammar school certificate when sending their application for admission to the school. If not possible to send the certificate at the same time, it should be sent before September 1, 1903. The certificate will be returned to the applicant after the opening of the school.

Applicants who expect to be admitted upon examination must send their recommendations at the same time with their application for admission.

Copies of the application form will be sent to any who request. All applications for admission to the school must be made on this form.

All applications should be sent to the Director of the school not later than September 1, 1903.

The number of students who can be admitted for the year 1903-4 is limited to fifty.

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#### DISCIPLINE.

It is expected that all persons who attend this school have an earnest purpose to make the best use of their time while in attendance. It is expected, therefore, that their behavior will always be exemplary in school and in the town. Failure to do the work laid out by the school or

neglect to conduct one's self as a lady or gentleman will result in the suspension or expulsion of the guilty student. The parent or guardian will be notified of any disobédience or misconduct on the part of the student.

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#### EXPENSES.

There is no charge for tuition. The student is expected to pay for the materials used in the shops and laboratories. To cover these expenses the student is charged ten dollars per term, regardless of his or her course of study. The payment of this sum is required at the beginning of each term. The materials supplied under such payment are chemicals, wood, iron, drawing materials and the like. Students are required to furnish their own books, drawing instruments, and special clothing, such as overalls, needed in the shops.

The total expense for books, drawing instruments and other supplies needed by each student at the beginning of the school year will be about ten dollars. The drawing instruments will last during the entire course. The expenses for additional books at the beginning of the second term will not exceed five dollars. The total cost of books, supplies and fee for first year will, therefore, be about thirty-five dollars.

Arrangements will be made whereby the books and other supplies may be purchased at reasonable prices in San Luis Obispo. A detailed list of these articles will be mailed to all prospective students about the 15th of August.

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#### BOARD.

Board and room, including heat and light, will be provided in the dormitory at actual cost for food and service. It is expected that this will not exceed twenty dollars per month for each student. It is hoped that this sum will also include the laundering of bed linen and personal clothing except starch goods, but no promises can be made until we have had some experience to guide. Payments for accommodations in the dormitory must be monthly in advance.

Boys only will be admitted to the dormitory. All boys from abroad are required to live in the dormitory, in so far as they can be accommodated. In case there are more applications than rooms, the rooms will be assigned in the order in which the applications are received. The occupant of a room is required to furnish bed linen, blankets and soap and towels for his personal use. He will need at least two pillow cases, three sheets and two pairs of blankets. It is desired that blankets be used rather than quilts.

Room and board may be secured in private families in San Luis Obispo at from twenty to twenty-five dollars per month. There is some opportunity for girls to rent furnished rooms for light housekeeping.

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#### OPPORTUNITY FOR SELF-SUPPORT.

A limited amount of employment can be given to students who find it necessary to earn a portion of their expenses while attending the school. The farm, dairy, dormitory and grounds afford opportunity to employ a few students more or less regularly during the year. No remuneration will be made for manual work of any kind which carries instruction with it. Whenever the student has become so proficient in any branch that his services are of value to the school he will be paid for such service, so far as our means will permit, at a reasonable rate per hour.

No student should come to school expecting to pay his entire expenses by labor during the school year. The school work occupies the most of the day, and the evenings are required to prepare the lessons for the following day. Provision may be made, however, for students who need to do much work in order to pay their way whereby they may take less than the full school curriculum and thus be a longer time completing the course.

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#### THE SCHOOL YEAR.

The year 1903-4 will be divided into two terms of twenty weeks each. The first term begins Tuesday, September 15, 1903, and continues until Friday, February 5, 1904, with a Christmas recess of two weeks. The second term begins Monday, February 8, and continues until Friday, June 25, when the summer vacation begins. Students will register at the office of the school on the first day of each term at 9 A. M., and teachers will meet their classes the same day.

School will be held five days a week—from Monday to Friday inclusive. If found necessary, Saturday may be used for excursions or field work. The daily hours for recitation and laboratory exercises are

from 9 to 12 and 1 to 4. Each student is occupied at some school work the whole of this time.

Correspondence concerning the school should be addressed to the Director of the California Polytechnic School, San Luis Obispo, California.



A GLIMPSE OF THE SCHOOL CAÑON.

SAN LUIS OBISPO is a city of about 4,000 people, charmingly situated in a valley of the Coast Range Mountains, and ten miles in two directions from the Pacific. The ocean is reached at Port Harford to the southwest and at Morro Bay to the northwest. The climate is a pleasing combination of sea and mountain environment, which moderates both the summer and winter temperature.

San Luis Obispo has churches representing the following denominations: Presbyterian, Congregational, Baptist, Methodist, Episcopalian, and Catholic. The last-named congregation occupies the famous Mission San Luis Obispo de Toloso, which was established in 1772.

A free public library was established in 1897. It now contains 3,620 bound volumes and many unbound pamphlets and magazines. It will this year begin the construction of a \$10,000 library building, which is the gift of Mr. Carnegie. Students in the Polytechnic School will be granted equal privileges in the library with the residents of the city.

San Luis Obispo is on the coast line of the Southern Pacific Railway, about midway between San Francisco and Los Angeles. Through trains leave each of these cities daily,—one in the morning and one in the evening,—and meet at San Luis Obispo in the middle of the afternoon and in the early morning. A local train service with San Francisco and Los Angeles is obtained by one train daily in either direction. The town may also be reached by water by the Pacific Coast Steamship Company's line of boats, connecting at Port Harford with the Pacific Coast Railway for San Luis Obispo and other towns in the interior.

