

Colorado State Teachers College Bulletin

Series XX

FEBRUARY, 1921

Number 11

THE SUMMER QUARTER 1921



GREELEY, COLORADO

June 20 to August 26

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IMPORTANT ANNOUNCEMENTS

THE SUMMER QUARTER OPEN TO ALL

Any person twenty years of age or over, whether a high school graduate or not, may enroll in the College for the summer quarter and take such subjects as they are interested in and able to carry. A record of attendance and a list of the subjects taken will be kept. College credit toward graduation is given only to those who meet the entrance requirements as stated on page 8. Students who attend the summer quarter without submitting high school credentials may later present these and have their marks previously earned transferred to the regular credit records of the College.

The College, as usual, divides the Summer Quarter into two equal half quarters for the convenience of the few students who can attend for only a part of the time. Only those courses which are designated "First Half," "Second Half," or "Either Half" carry credit for less than the full quarter. All other courses must be carried for the full quarter, if taken for college credit. There are fewer of these half quarter courses this year than formerly, because of the lessening demand for them. Most summer school students are arranging to remain for the full quarter and earn a full quarter's credit toward graduation.

REGISTRATION—PAYMENT OF FEES

All students who expect to be in attendance for the full quarter should make up a program card for the whole quarter. The quarter fees may be paid all at once or for the student's convenience in two parts—one-half June 20, and the second half July 25.

Late Registration—Students registering after June 20 (for the first half quarter) or July 25 (for the second half) pay a fee of \$2.00 for late registration. Except by special permission of the Dean of the College, no student, after his first quarter of school work during any given school year, who registers after the first day of the quarter shall under any consideration be allowed to take more than sixteen hours of work, and no additional credit for A's or AA's will be allowed such student for the work of the quarter in which he has registered late. If the student is more than three days late the total number of hours on his program will be reduced in proportion to the time lost.

Any student absent from class on the last day of the quarter will have his quarter report for that class turned in as incomplete unless he has a written permit from the President or Dean to leave before the close of the quarter. No teacher has authority to excuse a student from one of his courses before the close of the quarter.

Colorado State Teachers College Bulletin

THE
SUMMER QUARTER
1921

THE
STATE TEACHERS
COLLEGE OF COLORADO
Greeley, Colo.

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DATES

The Quarter: June 20-August 26

First Half: June 20-July 22

Second Half: July 25-August 26

The Faculty

Summer Quarter, 1921

- JOHN GRANT CRABBE, A.B., A.M., Pd.M., Pd.D., LL.D., President.
 FRANCIS LORENZO ABBOTT, B.S., A.M., Professor of Physical Science.
 LEVERET ALLEN ADAMS, A.B., A.M., Ph.D., Professor of Biology.
 W. D. ARMENTROUT, A.M., Director of the Training School.
 LELA M. AULTMAN, Pd.B., Pd.M., A.B., Training Teacher, First Grade.
 GRACE M. BAKER, Professor of Fine and Applied Arts.
 W. E. BAKER, A.M., High School Science.
 GEORGE A. BARKER, M.S., Professor of Geology, Physiography and Geology.
 JOHN R. BELL, Ph.B., A.M., D.Litt.
 WILLIAM GRAY BOWERS, Ph.D., Professor of Chemistry.
 A. E. BROWN, A.M., Director of Secondary Education.
 RALPH T. BISHOP, Instructor in Printing.
 MARK BURROWS, A.B., Director of Rural Administration.
 ALBERT FRANK CARTER, A.B., M.S., Librarian; Professor of Library Science.
 ELIZABETH CLASBEY, Instructor in Household Science.
 AMBROSE OWEN COLVIN, B.C.S., Professor of Commercial Education.
 EDITH CREMEANS, Assistant Librarian.
 E. A. CROSS, A.B., A.M., Dean of the College. Professor of Literature and English.
 LUCY B. DELBRIDGE, Violin.
 HULDA A. DILLING, B.E., Training Teacher, Third Grade.
 EDWIN STANTON DUPONCET, A.B., Ph.D., Professor of Modern Foreign Languages.
 FLORA ELDER, A.B., Instructor in Commercial Education.
 GEORGE WILLIAM FINLEY, B.S., A.M., Professor of Mathematics.
 CHARLES M. FOULK, Pd.B., Professor of Manual Training.
 HELEN GILPIN-BROWN, A.B., Dean of Women.
 SAMUEL MILO HADDEN, Pd.B., A.B., A.M., Dean of Practical Arts. Professor of Industrial Education.
 MORRIS HANCOCK, A.B., Assistant Professor of Educational Psychology.
 W. H. HARGROVE, B.S., Professor of Agriculture.
 JOSEPHINE HAWES, A.B., A.M., English, High School.
 JACOB DANIEL HELLMAN, A.B., Ph.D., Professor of Educational Psychology.
 RAYMOND H. HUNT, A.B., Reed and Brass Instruments.
 EDWARD KAMINSKI, Instructor in Fine and Applied Arts.
 ELIZABETH HAYS KENDEL, Pd.B., Pd.M., A.B., Training Teacher, Sixth Grade.
 JOHN CLARK KENDEL, A.B., Director of the Conservatory of Music. Professor of Public School Music.
 HAZEL KENNEDY, A.B., Assistant in Music, Piano.
 JOSEPHINE KNOWLES KENDEL, Voice.
 MARGARET JOY KEYES, A.B., Assistant in Physical Education and Dramatic Interpretation.
 BLANCHE LOUDEN, B.S., Training Teacher, Fourth Grade.
 GENEVIEVE LYFORD, B.S., Kindergarten.
 GLADYS E. KNOTT, B.S., M.S., General Science, High School.
 H. PEARL LIPP, M.D., Medical Adviser of Women.
 ROYCE REED LONG, A.B., Director of Hygiene and Physical Education.
 THOMAS C. MCCrackEN, A.B., A.M., Ph.D., Dean of the Graduate School. Professor of the Science and Art of Education.
 FLORENCE LOWE, Pd.M., Instructor in Fine and Applied Arts.

- LUCY MCLANE, A.B., English, High School.
 MARIE GUSTAVA LUNDBERG, B.S., Assistant Professor of Household Science.
 ARTHUR E. MALLORY, A.B., Mathematics, High School.
 SENORA METSKER, A.M., Training Teacher, Fifth Grade.
 GURDON RANSOM MILLER, Ph.B., A.M., Ph.D., Professor of Sociology and Economics.
 KATHERINE OMMANNEY, A.M., Instructor in Literature and English.
 BERNICE ORNDORFF, Ph.B., Training Teacher, Seventh Grade.
 EVELYN NEWMAN, A.M., Assistant Professor of Literature and English.
 WILLIAM B. PAGE, M.D., Assistant Librarian.
 ORA B. PEAKE, A.B., A.M., History; High School Preceptress.
 O. W. SCHAEFER, Bookbinding.
 MARGARET SCHEMEL, B.S., Training Teacher, Eighth Grade.
 WILLIAM E. SEARCH, Assistant Professor of Physical Education.
 BELLA BRUCE SIBLEY, Pd.B., Pd.M., A.B., A.M., Training Teacher, Second Grade.
 EDWIN B. SMITH, B.S., A.M., Professor of History and Political Science.
 EDITH STEPHENS, A.B., Assistant Librarian.
 FRANCES TOBEY, B.S., A.B., Professor of Oral English.
 EDNA F. WELSH, Pd.B., Pd.M., Commercial Education, High School.
 EDITH GALE WIEBKING, Instructor in Household Arts.
 GRACE WILSON, Pd.B., A.B., Assistant to the Dean of Women.
 FRANN LEE WRIGHT, A.B., A.M., Professor of Education.
 M. EVA WRIGHT, Piano and Pipe Organ.

GENERAL LECTURERS AND SPECIAL TEACHERS

Summer Quarter, 1921

The College announces the completion of plans for the summer lectures and special teachers for the coming summer quarter to include the following men of national educational fame.

Ten of the men will be called upon for evening lectures, each lecturer giving a series of five lectures during the evenings of one week. In addition to this most of the general lecturers will teach in regularly organized classes for periods of from one week to a full quarter.

In certain courses several of the visiting instructors teach through consecutive weeks. The classes will be in charge of resident instructors when not under the direction of visiting teachers and lecturers.

- EDWARD HOWARD GRIGGS, A.M., L.H.D., Lecturer on Literature, Ethics and Philosophy, New York.
 DR. EDWARD CAREY HAYES, Head of the Department of Sociology in the University of Illinois, and author of standard books on Sociology and Economics.
 DR. LINCOLN HULLEY, President of John B. Stetson University of Deland, Florida. Literature and History.
 DR. EDWARD A. STEINER, Professor of Sociology in Grinnell College, Iowa. Lectures on social, industrial and immigration problems.
 DR. CHARLES E. CHADSEY, formerly Superintendent of Schools, Denver, Colorado; Detroit, Michigan, and Chicago; Dean of the School of Education, University of Illinois.
 MR. HARVEY S. GRUVER, Superintendent of Schools, Worcester, Massachusetts. Courses in Education.
 DR. EDWARD L. THORNDIKE, Head of the Department of Educational Psychology, Teachers College, Columbia University. Educational Psychology.
 DR. DANIEL STARCH of the Department of Psychology, University of Wisconsin. Lectures and courses in Educational Measurements, Educational Psychology, etc.

- MISS GENEVIEVE KIRKBRIDE, Specialist in Kindergarten and Primary Education, University of Chicago.
- DR. ERNEST HORN, formerly of Colorado Teachers College faculty and of Teachers College, Columbia. Head of the Department of Experimental Education, Iowa State University. Courses in Education.
- MR. ALFRED L. HALL-QUEST, College for Teachers, University of Cincinnati. Lectures on Supervised Study, and other phases of Education.
- DR. JOHN W. WITHERS, Superintendent of Schools, St. Louis, Missouri. Dr. Withers, at the expiration of his term in St. Louis will become Dean of the College of Education of the New York University. Courses in Education.
- MR. JESSE H. NEWLON, Superintendent of Schools, Denver, Colorado. Courses in Education.
- DR. FRANK B. DYER, formerly Superintendent of Schools, Cincinnati, Ohio, and Boston, Massachusetts. Courses in Education.
- DR. FREDERICK E. PIERCE, Professor of English, Yale University, New Haven, Connecticut. Courses in English Literature.
- DR. WILLIAM F. SNOW of New York City. Lectures and class room work in Hygiene and Public Health.
- DR. O. T. CORSON, Editor Ohio Educational Monthly. General lectures on Education, Theory and Practice.
- MISS LOUISE TUTCHER, Primary Supervisor, Lawrence, Kansas.

The Summer Quarter, 1921

The Summer Quarter of 1921 will in general follow the plans begun in 1918. The quarter will be but a little shorter in actual time than the other three quarters of the college year. Each instructor will include all the material in his courses that he regularly uses and will give full time to each topic. A student will carry sixteen hours of work the same as in other quarters. This includes the usual two hours' credit for the evening lectures.

This year the policy of bringing in from other institutions, not only lecturers, but class-room teachers as well will be continued and extended. Twenty lecturers and teachers from other educational institutions will be in Greeley to give the best they have to the summer school students.

THE GROWTH OF THE SUMMER SCHOOL

The Summer School of Colorado State Teachers College began its work in 1905 with a small faculty group and about two hundred students. In 1910 practically the whole faculty, exclusive of the training school and high school teachers, remained to teach through the six weeks of the summer school. In that year there were 443 students. In 1918 the summer term was placed upon an academic level with the other quarters of the college year. The term was lengthened to a quarter and the credits were made equal in value with those of the college year. With this step the college entered upon the four-quarter year. The change proved to be a popular one. The attendance increased instead of falling off with the lengthened term, augmented expense, and diminished credit for the work done. Today the teachers, not only of Colorado but of neighboring and distant states as well, recognize the fact that the College is doing a large service to the profession of teaching by making it possible for active teachers to keep up with the development of modern educational practice and to continue their professional education without losing time from their teaching. Fifteen hundred teachers each year avail themselves of the opportunity.

WHO MAY ATTEND THE SUMMER QUARTER CLASSES

Admission to the College at other times is limited to those who have completed fifteen units of high school work. The strict observance of this rule during the summer would make it impossible for hundreds of experienced teachers, who are not high school graduates, to get into touch with all the new movements in education which the College faculty and visiting instructors are presenting to the summer quarter students. This year for the first time the College is opening the summer classes to all who may profit by the instruction offered.

Any student twenty years of age or over may be enrolled in Teachers College for the Summer Quarter without reference to meeting the College requirement for admission. The College believes it can render a valuable service to the teachers of Colorado and surrounding states by allowing any mature man or woman who is teaching or expecting to teach, but who has not graduated from a high school, to enroll in the College for the Summer Quarter and take from the complete College program such work as he or she may be able to carry.

No college credit will be recorded, however, for any student until the requirements for college entrance have been fully met. A record of attendance and work done will be kept. This may later be transferred to the permanent records and counted toward graduation when the entrance requirements have been complied with.

FEES AND EXPENSES

Board—Students board in private homes, boarding houses, and in the College Cafeteria. The cafeteria was started to enable students to keep the outlay for board down to a figure of approximate cost. Last summer the average cost of board for 300 students in the cafeteria was \$4 a week. It will not be higher than that this year.

Room—Private houses in the vicinity of the College provide rooms for students. With two students in a room the cost is seven, eight, or nine dollars a month for each student.

Light Housekeeping—A limited number of rooms for light housekeeping are available at a reasonable rental. The assistant to the dean of women, Miss Grace Wilson, will supply prospective students with lists of rooms upon request.

College Fees—The state provides funds for the maintenance of the College for three quarters in the year. The Summer Quarter has the use of the College buildings and equipment but finds it necessary to draw its financial support largely from student fees. Each student pays fifteen dollars for a half quarter, or thirty dollars for the full quarter. Students, not citizens of Colorado, pay an additional fee of five dollars for the full quarter.

All students who expect to be in the College for the full quarter make out their programs of studies for the full time. The fees, however, may be paid in two parts, one-half on June 20, and the other, July 25.

Books—Books may be bought from the College book room. At the end of the quarter any book in good condition and still to be used as a college text book, may be resold to the book room at a slight discount.

The table below represents a median of expense—neither the least possible nor the highest—and covers the three large items of college expense.

APPROXIMATE EXPENSE FOR TEN WEEKS

Room	\$20.00
Board	40.00
College Fees	30.00
Books and supplies	5.00
Total	<u>\$95.00</u>

DIPLOMAS, CERTIFICATES AND DEGREES

The Colorado Life State Certificate is granted to all graduates of any of the two-year or three-year courses of study. This certificate is honored as a life state certificate for elementary school teachers in practically all Western states and in many Southern and Eastern states as well. The degree of Bachelor of Arts in Education is granted to candidates who complete any of the four-year courses. The degree of Master of Arts in Education is conferred upon candidates who carry their school studies with distinct success one full year beyond a recognized bachelor's degree. A thesis is also required for the master's degree. Both the bachelor's and master's diplomas are also life state certificates under the laws of Colorado.

LOCATION OF THE COLLEGE

As this bulletin goes to several thousand teachers and students who have never visited Colorado, a few words may fittingly be said here regarding Teachers College and Greeley as to location and climate.

Greeley is one of the most beautiful small cities to be found anywhere. It is situated 52 miles north of Denver, within plain view of the Rocky Mountains, in the heart of the richest farming country in the world. Its homes shelter an intelligent population of over 12,000 persons, overwhelmingly American. Its streets are broad and shady, its lawns well kept; its water supply is piped 38 miles from a mountain canon, and is pure and soft. It is pre-eminently a city of homes, schools, and churches.

The altitude, 4,567 feet above sea level, insures clear, dry air, sunny days and cool nights. Seldom does the night temperature go above 70 degrees, even in the hottest part of the summer; 60 or 65 degrees at night is usual. Because of the low percentage of humidity, even the hottest midday is seldom oppressive, and sunstroke is unknown.

One may accomplish a given amount of brainwork here with the minimum of energy and fatigue, while recuperation comes quickly. This statement is true of the entire year.

RECREATION

The now celebrated Week-end Excursion to the Rocky Mountain National Park conducted by the Outing Committee of Colorado State Teachers College will be continued this year on a larger scale than ever before.

Two new features of unusual interest are to be included this summer: First, a night in camp at Timberline on Long's Peak, and second, a climb to the summit of the Peak in the early morning hours of the following day.

A Year Book giving full particulars will be published in a short time and can be had by sending to the Extension Department of the College a written request for the same.

Summary of the Week-end Trip—The autos start from the west gate of Teachers College at 11:00 A. M. each Friday of the Summer Quarter, pause for lunch at the Loveland dam, 29 miles away, reach camp C. T. C. in Estes Park in time for a mid-afternoon dinner, and then proceed to Long's Peak Inn.

The cars are left a mile above the Inn and the party climbs in the late afternoon and early evening, with the aid of horses, to Camp Timberline, where tents and bonfires are in readiness.

Rising early on Saturday morning, the party reaches the summit of the Peak by ten or eleven o'clock and the return to Camp C. T. U. effected by five in the afternoon.

The third day of the trip is utilized in visiting the scenic places in the Rocky Mountain National Park, visited by a quarter of a million people each year.

Cost and Equipment—The entire auto charge for the one hundred and fifty miles covered in the three days is \$10.00—less than seven cents

a mile. The seven meals cost four dollars. The two nights' lodging cost \$1.50. The total cost to those who go as far as Long's Peak Inn is fifteen dollars and fifty cents. Those who wish to climb Long's Peak must pay an additional \$2.50 to cover the cost of horses and guides.

All persons expecting to make this trip must provide themselves with warm underwear, common work dresses (outing suits preferred), heavy soled shoes, that you are willing to have scuffed, and a rain coat.

BUILDINGS AND EQUIPMENT

Buildings—The buildings which are completed at the present time consist of the administration building, the library building, the residence of the President, the training school and the industrial arts building. The main, or administration building, is 240 feet long and 80 feet wide. It has in it the executive offices, class-rooms, and class museums. Its halls are wide and commodious and are occupied by statuary and other works of art which make them very pleasing.

The library is a beautiful building. The first floor is entirely occupied by the library, consisting of more than fifty thousand volumes. The furniture in the library is of light oak and harmonizes with the room in a most pleasing manner. The basement is occupied by committee rooms, text-book department, taxidermy shop, wild animal museum, and the departments of hygiene and agriculture.

The Training School is a commodious building of red pressed brick similar in style to the administration building. In its construction no pains or expense have been spared to make it sanitary, fireproof, and in every possible way an ideal building for a complete graded school from the kindergarten to the high school, inclusive.

The Simon Guggenheim Hall of Industrial Art is a beautiful structure in the classic style of architecture. It is constructed of gray pressed brick. It accommodates the departments of Manual Training and Art, including every branch of hand work and art training applicable to the highest type of public school of the present and immediate future. This building is a gift to the College from ex-Senator Simon Guggenheim.

The President's House is on the campus among the trees. In this beautiful home are held many social gatherings for students during the school year.

A temporary wooden structure was completed to take care during the war period of the needs for a modern gymnasium and auditorium.

The Campus—Surrounding the buildings is a beautiful campus of forty acres. It is covered with trees and grass, and dotted here and there with shrubs and flowers, which give it the appearance of a natural forest. During the summer, birds, rabbits, squirrels and other small animals make the campus their home, thus increasing its value as a place of rest, recreation, or study.

During the summer and fall quarters the faculty gives its evening reception to the students on the campus. At this time it presents a most pleasing appearance, being lighted, as it then is, by electric lights and Japanese lanterns.

In the rear of the buildings is a large playground, which covers several acres. In the southwestern portion of this playground is a general athletic field, a complete view of which is secured from a grandstand, which will accommodate more than a thousand spectators. On the portion of the grounds adjacent to the building there is a complete outdoor gymnasium. To the south of the buildings are located the tennis courts and the garden theater.

During the summer, courses on the organization of playgrounds will be given, and demonstration of how to carry out these courses in the public schools will be made on the campus.

Equipment—The institution is well equipped in the way of laboratories, libraries, gymnasiums, playgrounds, an athletic field, art collection,

museum, and a school garden. The library has 50,000 volumes bearing on the work of Teachers College. There is ample opportunity to work out subjects requiring library research. There is a handicraft department with the library wherein a student may learn how to conduct a library. The gymnasium is well equipped with modern apparatus. Games of all sorts suitable for schools are taught.

ADMISSION TO THE COLLEGE, COURSES OF STUDY, GRADUATION, ETC.

Regular Admission to the College—Admission to the College is granted to those who present a certificate of graduation showing the completion of fifteen or more units in an acceptable high school. This certificate must be presented at the time of matriculation in the College, and should be accompanied by a transcript of the high school record, showing what subjects were studied and the number of units or the fraction of a unit made in each. A "unit" is a subject pursued for thirty-six weeks, with five recitations per week.

Conditional Admission—An applicant who is twenty years old or over, who is not a high school graduate, but who is credited with fourteen high school units may be admitted to the College upon presenting a transcript from a reputable high school, showing the completion of fourteen units. This admission is conditioned. Such students are limited to a maximum program of twelve hours per quarter and must make up the deficient high school unit in the Industrial High School during the student's first year in the College. The student could not be enrolled for the second year until the entrance condition had been removed.

School for Adults—Mature students over twenty years of age who have less than fourteen high school units of credit will be assigned to the School for Adults—a division between the high school and the College. As soon as they have completed the equivalent of fifteen high school units, or shown the learning power which such completion usually gives, they may be granted a certificate of high school graduation and admitted to the College.

Special Registration for the Summer Quarter Only—Many students come to the College for the Summer Quarter only and do not wish to go through the formality of presenting credentials for entrance. They do not expect to graduate and so do not care to have a permanent record of their credits made. Provision for these is made in the statement printed inside the front cover of this bulletin.

Organization—The College is an institution for the training of teachers. It graduates students upon the completion of a two-year course. Advanced students are graduated upon the completion of courses covering three, four, or five years.

Function—The purpose of the College is to train teachers for public school service. Being supported by public taxation of all the property of the State of Colorado, the College aims first to prepare teachers for all the kinds of public schools maintained within the State of Colorado. This includes rural schools, kindergartens, primary, intermediate grade, upper grade, junior high school departments, and high schools. The College also accepts the responsibility of training supervisors for rural schools, principals, superintendents, teachers of home economics, practical arts, fine and applied arts, critic teachers, teachers of defective and a-typical children, teachers for adult night schools, etc.

While the College is supported for the training of Colorado teachers, it welcomes students from any state or country and sends its teachers anywhere that they may be called. Students come to Colorado Teachers College from many states and its graduates go in large numbers into the neighboring states and in smaller numbers into distant states and countries.

The College recognizes as its plain duty and accepts as its function the training of students to become teachers in every type of school at present supported by the state, to meet actually all the demands for the best in the public school system of the present, and to forecast those improvements and reforms which the evolution of public systems of education is to bring about in the immediate future and to train teachers to be ready to serve in and direct the new schools which are in the process of being evolved.

Advanced Standing—Students who come to the College after having done work in another college, normal school, or university will be granted advanced standing for all such work which is of college grade, provided that the college or normal school in question has required high school graduation as a condition for admission. Those who receive advanced standing are required to take here all the prescribed "core" subjects in the course they select, unless these prescribed subjects or their substantial equivalents have been taken already in the normal school or college from which the student comes. Only the heads of the departments involved have the power to excuse students from taking these prescribed "core" subjects. No advanced standing is granted for additional units above the usual sixteen earned in the four-year high school course. If college subjects have been studied in a fifth year in a high school, such credit as these subjects deserve will be allowed.

After September 1, 1921, credit will be given only for regular college work taken in institutions regularly recognized as standard colleges or colleges maintained primarily for the training of teachers. On and after that date Colorado Teachers College will discontinue giving college credit for teaching experience, county institutes, reading circles, penmanship certificates, music certificates, drawing certificates, private study, private lessons of any kind, or work in business colleges, conservatories of music, dramatic schools, or for any other kind of work not done in an institution ranking as a standard normal school college, teachers college or university.

Those who expect to attend the Summer Quarter of Colorado State Teachers College and who desire advanced standing, should write for application blanks for advanced standing at their earliest convenience, and should return those as soon as possible together with credentials to the College, so that they may be considered before the opening of the Summer Quarter. It is exceedingly important that full credentials, relative to all the work for which credit is expected, be forwarded. This saves the student much delay and inconvenience.

The Unit of College Credit—All credit toward graduation is calculated in **quarter-hours**. The term **quarter-hour** means a subject given one day a week through a quarter of a year, approximately twelve weeks. Most of the college courses call for four recitations a week. These are called four-hour courses. A student usually selects sixteen quarter-hours, the equivalent of four courses each meeting four times a week, as his regular work.

Forty-eight quarter-hours are a student's regular work for the usual school year of nine months, or three quarters.

Maximum and Minimum Hours of Credit—A student registers usually for fifteen or sixteen hours each quarter. If the work is to count as resident work, the student must carry at least twelve quarter-hours.

A student who wishes to take a larger program than sixteen hours made up of any other additions than those mentioned above must take one of the standard mental tests. Applications for permission to take more than sixteen hours are made to the Committee on Students' programs. This committee will decline to grant permission to students to take more than eighteen hours, on the ground that it is better for the most brilliant student to do extended and careful work on eighteen hours, rather than to do twenty hours or more superficially.

It shall be a part of the duties of the Committee on Student Programs to learn at the close of the first half of each College quarter the quality of the work of each student carrying more than sixteen hours, and reduce the number of hours in each and every case regarding which any instructor reports the student's work as either weak or unsatisfactory.

Minimum Residence Requirement—The College does not grant any certificate or diploma for less than three full quarters of residence study, during which time the student must have earned at least forty-eight quarter hours of credit. Students who have already taken the two-year diploma must spend in residence at least one quarter out of each year required for the three-year or four-year courses in the College. Extension group classes, conducted by members of the College faculty, are considered as resident work and may be counted as such to the extent of one quarter out of each six quarters required for the student's graduation.

The Grading System—A student who takes a four-hour course may earn a little more than four hours of credit by doing unusually good work. On the other hand, less than four hours will be granted for work of poorer quality than a reasonable expectation. The system is as follows:

A mark of AA for a course gives 20 per cent above the number of hours indicated as normal for the course.

A gives 10 per cent above normal.

B gives the normal credit.

C gives 10 per cent below normal.

D gives 20 per cent below normal.

F indicates failure.

For example:

4B on a student's permanent record means that a student has taken a four-hour course and made the normal credit in it.

4AA would indicate most excellent work in a four-hour course and would carry 4.8 hours credit.

4A gives 4.4 hours credit on a four-hour course.

4B gives 4 hours credit on a four-hour course.

4C gives 3.6 hours credit on a four-hour course.

4D gives 3.2 hours credit on a four-hour course.

These marks, both figure and letter, go on the student's permanent record for later reference to indicate the quality of the work done.

A student who enters school late in the quarter or is compelled to leave may receive partial credit for the course in such a way as to indicate both the quality and the amount of credit. For example: A student may complete with exceptional distinction but two-thirds of a three-hour course. The mark should be 2AA, and not 3C. Each mark would give 2.4 hours, but the first mark would indicate the quality of the work as well as the amount of credit.

The School Year—The school year is divided into four quarters of approximately twelve weeks each. These are:

1. **The Fall Quarter.**
2. **The Winter Quarter.**
3. **The Spring Quarter.**
4. **The Summer Quarter.**

This division of the year is especially well suited to a teachers' college, for it gives teachers in active service an opportunity equal to any of securing a complete education while actually teaching.

Shortening the College Course—The Quarter plan, the Extension Work, and the grading system make it possible for students who are physically strong enough to stay in school with only short vacations to complete a college course in a shorter time than that usually required in the colleges. Ninety-six quarter-hours constitute the usual two-year college course, and one hundred and ninety-two quarter-hours make up the

four-year course required for the A.B. degree. By carrying an average of seventeen hours a quarter and making an average grade of "A," a strong student can earn 18.7 hours each quarter. At this rate he could complete the course for the two-year life certificate in five quarters, from the middle of June of one year to the end of August of the next. Or such a student could complete the course for the A.B. degree in two and a half years—ten quarters. By doing some work in Extension courses through the school year while teaching, it is possible for teachers in service to reduce the time of their courses also.

Student Teaching—Teachers who have had less than two years of college training take their practice teaching in the Elementary School. Those who have had two years of college training may choose between the Elementary School and the High School according to their own personal needs and interests. Most students are required to do two quarters of practice teaching before being granted the diploma of graduation from the two-year course. Experienced public school teachers may be excused from one quarter of this practice teaching by presenting to the superintendent of the Training School satisfactory evidence warranting such exemption.

Students who expect to teach in the Training Department, either the Elementary School or High School, during the summer session, are asked to correspond with the Director of the Training School before the opening of the quarter.

The State Board of Examiners—Every student before being granted a life certificate appears before the State Board of Examiners to teach a model lesson. Only students who have had at least a quarter's practice in the Training School are admitted to this examination. A second examination is not required of those who are taking the higher diplomas and degrees if they have already taught successfully before the State Board.

APPLICATIONS FOR GRADUATION

Application for graduation must be filed in the Dean's office at least 30 days before the diploma is to be granted.

THE DAILY PROGRAM

Summer Quarter

- 7:00 to 7:50—First Class Period
- 8:00 to 8:50—Second Class Period.
- 9:00 to 9:50—Third Class Period.
- 10:00 to 10:50—Fourth Class Period.
- 11:00 to 11:50—Fifth Class Period.
- 12:00 to 12:50—Sixth Class Period.

The afternoon is open for study in the Library and on the Campus and for Physical Education classes and informal recreation.

7:00 to 8:00 p. m. the General Lectures in the new Gymnasium-Auditorium.

ELEMENTARY TRAINING SCHOOL

The Elementary Training School is an educational laboratory where useful educational problems are being worked out under the direction of skilled experts. New methods that save time, new schemes for better preparing the children for life, new curricula and courses of study are continually being considered by this school and are tried out provided they are sound educationally. The aim is not to develop a school that is entirely different from the elementary schools of the state, but to reveal conditions as they are and as they should be. The elementary training school strives to be the leader in the state that is new and modern. Effort is made to maintain such standards of excellence in the work that it may at all times be offered as a demonstration of good teaching under conditions as nearly normal as possible in all respects.

The Elementary Training School is a complete elementary school unit containing Kindergarten, First, Second, Third, Fourth, and Fifth grades. The Sixth, Seventh, and Eighth grades are organized on the departmental plan for the purpose of exploring and diagnosing earlier than usual the interests, attitudes, and abilities of pupils and at the same time to provide better for individual differences. This organization affords splendid opportunity for studying Junior High School problems. In the elementary training school the training teacher spends approximately one-half of her time teaching and the other half observing student teaching. The work of the student teacher consists of observation, supervision, and teaching under the direction of the training teacher.

Modern School of Supervised Study

There will be two rooms in the Elementary Training School set aside for supervised study. Dr. Hall-Quest will supervise this work the first half of the Summer Term and Dr. Horn the second half.

Secondary Training School

The primary function of the Secondary Training School is to train that group of teachers who intend to enter the field of secondary education. The State High School of Industrial Arts, the Secondary Training School of Colorado State Teachers College, is being built upon the theory that the highest interests of the pupils and the highest interests of the secondary training school can be made to harmonize.

Student teachers are to spend two-fifths or more of their time in teaching under the training teacher and the remainder in observing the training teacher. Student teachers are to be assigned teaching in terms of problems or units. Each problem requires at least five consecutive recitations or as many more as the training teacher may think necessary. Student teaching in the secondary training school consists of teaching, observing, lesson plans, readings, individual conferences with the training teacher, and general conferences with the director of Secondary Education and the director of the Training School.

School of Reviews of Colorado State Teachers College

To the elementary school teachers of Colorado the School of Reviews of the State High School of Industrial Arts offers an opportunity to strengthen one's grip on the subject matter of instruction. It does more than that. It affords a chance to observe good teaching and to receive sound instruction in teaching technique. The teachers thus receive a thorough review of the subject matter (with some amplification and expansion of the subject matter), and expert instruction in methods. Elementary teachers who are desirous of preparing for examinations or of

improving their proficiency in their work will find in the School of Reviews a real opportunity.

Courses will be given in Geography, Grammar, Arithmetic, Primary Methods, American History, General Science, School Management and Law, Rural Life and Education, General Methods, Hygiene, and Reading Circle books. Rates of tuition are \$18.00 for the Summer Quarter. The School of Reviews opens Monday, June 20th, and closes Friday, August 26th. For further information address A. E. Brown, Principal State High School of Industrial Arts, Greeley, Colorado.

Rural Training Schools

It is the aim of the Department of County Schools to awaken an interest and develop initiative and constructive thinking toward solving the problems met with in rural, village, and consolidated schools. To this end an earnest study of the needs of rural and community life will be made, and the necessary changes in curricula, school organization, and administration. Some type of rural school must serve about one-half of all the children in the United States, and educational leaders with vision and initiative are in great demand.

Observation. During the second half of the quarter a two-teacher rural school will be opened for observation. A limited number of practice teachers will be accepted who will work in co-operation with the regular teachers. Students enrolled in the observation course will be conveyed to the school at least once each week to observe the work of the teachers, the methods employed and the general plan of management. The work will be so planned as to make the minimum amount of conflicts with other work.

Students who are regularly enrolled in college courses will receive credit for work done in the Demonstration School; special students may receive credit in the Industrial High School.

The Graduate School

The Graduate School offers advanced instruction leading to the degree of Master of Arts in Education. The principal aim of graduate study is the development of power of independent work and the promotion of the spirit of research. The various departments of the College which offer graduate courses are willing to offer not only the courses regularly scheduled but others of research and advanced nature which the candidate wishes to pursue. Each candidate for a degree is expected to have a wide knowledge of his subject and of related fields of work.

Persons holding the degree of Bachelor of Arts, Philosophy, Science, or other four-year degree, from a reputable institution authorized by law to confer these degrees and approved by this Institution may be admitted as graduate students in Colorado State Teachers College upon the presentation of official credentials, including transcript of records of undergraduate work.

The prospective student should obtain the blank "Application for Admission" and send it to the Committee on Advanced Standing for their approval before the opening of the quarter. Such blanks may be secured by addressing the State Teachers College, Greeley, Colorado. Original credentials should be submitted with the application for admission.

General Plan of Work for the Degree of Master of Arts in Education

Residence—Three quarters of work are required in residence at the College in advance of the requirements for the A.B. degree. This is three quarters of work beyond a four-year college course.

Units of Work—A year's work shall be interpreted as forty-eight quarter-hours. Thirty-eight hours' credit will be given for graduate courses pursued and ten hours for the Master's thesis which is required. Sixteen hours' credit a quarter during the regular school year is the maximum, inclusive of the research involved in the thesis requirement.

Admission to Candidacy for Degree—Admission to the Graduate School does not guarantee admission to candidacy for the M.A. degree. The student shall not be admitted to candidacy for the degree earlier than the close of his first quarter's work (completion of sixteen credit hours). Such admission shall be determined by a committee consisting of the President of the College, the Dean of the College, the Dean of the Graduate School, the Head of the Department in which the student is majoring, and two professors with whom the student has had work, these to be chosen by the Dean of the Graduate School. The merits of each student shall be the basis for the decision of this Committee; personal fitness, the ability to use good English both oral and written and the ability to do superior work in the field of specialization are among the important things to be considered by the Committee.

The Nature of Graduate Work

Specialization—In keeping with the function of a teachers' college, graduate work shall be confined largely to professional lines of work. It shall represent specialization and intensive work. As soon after enrollment as possible, the graduate student shall focus attention upon some

specific problem which shall serve as the center for the organization of his year's work, including courses to be taken and special investigations to be conducted. No graduate credit will be given for scattered and unrelated courses.

Thesis—Research work culminating in the writing of a thesis upon some vital problem of education shall be an integral part of the work for the Master's degree.

Breadth and Range of Professional Outlook—In addition to the intensive and specialized work which is required of candidates for the Master's degree, they are expected to know the fundamentals of professional education.

Final Examination Upon the Whole Course—There shall be a final examination, oral or written, upon the whole course. An oral examination of two hours' duration is customary. This examination will cover the following ground: (a) The field of the thesis and special research, including topics closely related thereto; (b) The fields covered by the courses taken by the candidate; (c) The general fields of Psychology, Sociology, Biology, and Education.

General Information

1. All courses taken by graduate students must be approved in advance by the Dean of the Graduate School.
2. No graduate student may enroll for more than sixteen hours of work in any quarter. This regulation is essential to the maintenance of the standard of intensive work for the Master's degree. In determining the maximum amount of work permitted, research upon the thesis topic must be included within the limit stated. To this end, the student doing research work upon his thesis topic must enroll for the same.
3. Twelve hours shall be the minimum number of hours considered as a term in residence. If for any reason a student cannot carry more than twelve hours a quarter, the remaining hours may be taken in extension when approved in advance by the Dean of the Graduate School.
4. In order that the standard of intensive and specialized work for the Master's degree may be maintained, no graduate credit will be given for elementary courses, for scattered and unrelated courses, for public platform lectures or public platform lecture courses, or for courses in which the element of routine is large as compared with the theoretical and professional aspects.
5. Excess A.B. work may be applied toward the M.A. degree only when arrangement is made in advance with the Dean of the Graduate School so that he may see that the work is of M.A. standard and that it is in line with the specialization necessary for the M.A. degree. Such credit will be granted only to students in their fourth year who do not need all their time for the completion of their undergraduate work.
6. The courses which may be taken for graduate credit must be of an advanced character, requiring intensive study and specialization. Certain approved undergraduate courses may be pursued for graduate credit; but, when so taken, the character of the work done and the amount of ground to be covered must be judged by a higher standard than that which applies to the regular undergraduate student. The standard of intensive work set for the graduate student must be maintained even if special additional assignments have to be made to the graduate student who works side by side with the undergraduate.

7. Satisfactory teaching experience shall be regarded as a prerequisite to graduation with the Master's degree. Teaching in some department of the College or its training schools may, under certain conditions, be included in the graduate work of candidates for the Master of Arts degree. Routine teaching will not be recognized for graduate credit. When graduate credit is given to teaching, this work must be of an advanced character, so organized, controlled, and supervised as to insure some decided growth of the teacher in the scholarship of the subject or professional insight into its value and problems.

8. Sixteen hours of credit toward the M.A. degree shall be the maximum amount allowed to be earned in a regular school year by any one who is employed on full time, except upon the recommendation of the Dean of the Graduate School.

9. Before the M.A. degree may be conferred a student must have had at least 72 hours of college work in his major and not less than 32 hours of professional work in Education and related fields which is acceptable in the various states as requirements for certification.

10. All work for the M.A. degree shall be done with distinction; work barely passed (marks of D and C under the present marking system) shall not be considered worthy of such an advanced degree.

11. The thesis subject of the graduate student must be approved in advance by the Dean of the Graduate School and by the head of the department concerned. Before the degree is conferred the thesis, as a whole, and in detail, must be approved by the head of the department or the instructor under whose direction the thesis work has been done and also by the Dean of the Graduate School. Two typewritten copies of the thesis must be placed on file with the Dean of the Graduate School, both of which he shall place in the library for permanent reference.

12. Before the candidate for the Master of Arts degree is admitted to final examination the thesis requirement must be met in full, and the thesis must be in such a state of readiness at least three weeks previous to final examination, that only minor reconstructions need to be made, which will not delay its being put in final typewritten form for filing before the end of the quarter in which graduation falls.

13. The final examination will be presided over by the Dean of the Graduate School and conducted by the head of the department in which the candidate has done the main part of his work. Other members of the faculty may be given an opportunity to participate in the examination. An official visitor, or official visitors, from outside the department in which the candidate has specialized shall be appointed to attend the examination.

Directions as to Form of the Thesis

Students submitting theses should present them in typewritten form, upon paper of good quality, of customary size (8½x11), leaving a margin at the left adequate for binding—fifteen points by the typewriter, twenty if the manuscript is thick.

A title page should be prepared, containing in neat lettering at the top, the name of the institution, THE STATE TEACHERS COLLEGE OF COLORADO; below this at some distance the title of the thesis; about the middle of the page the statement: A THESIS SUBMITTED IN CANDIDACY FOR THE DEGREE OF MASTER OF ARTS IN EDUCATION; at a lower level of the page the author's name, and at the bottom the address, and the year.

All theses should contain a brief analysis or table of contents at the beginning; should give footnote references to literature quoted by author, title of book or article, and exact page; and should contain at the end a bibliography of the literature of the subject. In giving bibliographical material, the customary form of publishing houses should be used, which is quite uniformly that of the author first, followed by title, price, copyright date, and publisher, and in case of magazine references, this by title of magazine, volume or date and page.

Fees for Graduate Courses

Fees for graduate students in the Summer Quarter and in the regular school year will be on the same basis as fees for all others.

Graduate Scholarships

For the encouragement of research and scholarship several scholarships are available for graduate students for the school year 1921-22. These range from \$100 to \$600 in value. Except in a few instances, where a certain amount of time is required in return for the stipend offered, the student will be expected to devote all of his time to graduate work.

Applications for scholarships should be filed with the Dean of the Graduate School not later than May 15th. A complete list of available scholarships is published regularly in the Year Book and Catalog of the College.

The Courses of Study

Throughout this catalogue courses numbered 1 to 99 are primarily first and second year subjects; 100 to 199 are third and fourth year. Those numbered 200 and above are Graduate School.

Colorado State Teachers College is a technical school like a medical or engineering school. Its business is to train teachers for all types of schools maintained by the state. The College has abandoned the idea that there is a possibility of training teachers for the various kinds of teaching through the medium of a single course of study or a scattered elective course.

To meet the requirements for teachers of all kinds of schools the college provides the following courses of study, and asks each student entering October 1, 1918, or after, to select a course definitely and to consult as a permanent adviser the head of the department directing that course of study. Students who registered previous to that date may continue with the old course of study and complete that course if they can do so within reasonable limits of time; but all who can readily make the adjustment are advised to select one of the new courses and complete their work under the new plan.

Length of Course—Each course is planned to occupy twelve quarters (a quarter is approximately twelve weeks in length). Upon the completion of the course the degree of Bachelor of Arts in Education will be granted. The diploma is a Colorado life certificate. Each course is so arranged that it may be divided in the middle. The first part of each course may be completed in six quarters. The student who chooses to be graduated at the end of the two-year course receives the Colorado life certificate, but no degree. Students who come to the college with advanced standing, and those who gain time by doing work of exceptional quality, may shorten the course somewhat.

Two-year and four-year courses of study for teachers are arranged for in the following departments:

- | | |
|--|---|
| 1. Agriculture (2 years only). | 8. Geology, Physiography and Geography. |
| 2. Biology. | 9. History and Political Science. |
| 3. Chemistry. | 10. Home Economics. |
| 4. Commercial Arts. | 11. Hygiene and Physical Education. |
| 5. Education.
Superintendents, H. S. Principals and Teachers.
Kindergarten.
Primary.
Intermediate.
Junior High School.
County Schools. | 12. Industrial Arts.
13. Literature and English.
14. Mathematics.
15. Music.
16. Physics.
17. Romance Languages and Latin.
18. Social Sciences. |
| 6. Educational Psychology. | |
| 7. Fine and Applied Arts. | |

The complete courses of study are shown in the Year-Book.

Each of the courses differs somewhat from the others in the subjects required by the respective departments, but each course contains the following subjects:

First Year

1. The Professional Core:	Hours
Biol. 2—Educational Biology.....	3
Ed. 8—Educational Values.....	3
Soc. 3—Educational Sociology.....	3

2. Other Required Subjects:

Eng. 4—Speaking and Writing (Students may be excused by proving proficiency).....	3
Ethics 1—(Required only of women students).....	1
Hygiene 8 is required of first year students and Hygiene 7 of second year students.	
Phys. Ed.—Physical Exercise (required each quarter).	

All first and second year students are required to take an active course each quarter. Third, fourth and fifth year students are exempt from this requirement but may elect any of the courses offered and receive credit towards graduation. Where physical disability makes it inadvisable for a student to participate in regular class activities, work in a corrective class, or special work in Hygiene is assigned.

Second Year

1. The Professional Core:	Hours
Psych. 2a—Educational Psychology.....	3
Psych. 2b—Ed. Psychology (continued).....	3
Ed. 10—The Elementary School Curriculum.....	3
Pol. Sc. 30—Political Adjustment.....	3
Ed. 1—Principles of Teaching.....	3

2. Other Required Subjects:

Phys. Ed.—Physical Exercise Courses (each quarter)
 The following work is required of all students who expect to take the two-year diploma.
 Two quarters Practice Teaching.

Students may graduate and receive the Colorado Life State Certificate at the end of the two-year course.

Third Year

1. The Professional Core:	Hours
Psych. 104—Psychology of the Elementary School Subjects, or Psych. 105—Psychology of the High School Subjects.....	4
Soc. 105—Social Maladjustments	4

3. In the Third or Fourth Year

The following courses are required of those who expect to teach in high schools:
 Ed. 105—Principles of High School Teaching..... 4
 Two quarters Practice Teaching in the High School.

Fourth Year

1. The Professional Core:	Hours
Ed. 111—Principles of Education.....	4
Ed. 116—The High School Curriculum.....	4
Psych. 108—Educational Tests and Measurements.....	3
(Ed. 116 and Psych. 105, Ed. 105 and H. S. practice teaching may be omitted by students who do not expect to become High School teachers. Additional practice teaching in the elementary school will be required instead.)	

REQUIREMENTS FOR GRADUATION

The Two-Year Course—A student must do full work in residence during at least three quarters before being granted a certificate of graduation from the two-year course. Thus, at least forty-eight of his ninety-six required hours must represent resident work; the remaining forty-eight hours may be granted on advanced standing or for extension courses. Applications for graduation must be filed with the registrar at least 30 days before the close of the Quarter in which the diploma is to be granted.

Time Limit for Completing a Course—The expression “within reasonable limits of time” in the second paragraph under **Courses of Study** means within four years after beginning resident work on a course of study. Thus, a student selecting the General Course in September, 1916, would have until the end of the Summer Quarter of 1920 to complete the **two-year course** thus selected. Failing to complete the course within that time he or she would be required to complete one of the courses of study in effect in the Year Book current at the time of his or her application for graduation. If such a student completed the two-year course on or before September, 1920, then he or she would be required to elect one of the senior college courses of the year 1920-1921 and complete all the requirements of the course thus selected for the A. B. degree. This course would have to be completed within another four years (that is, before September, 1924).

Transfer of Credits from Other Colleges—Since Colorado Teachers College is a college for training teachers, its courses of study are technical courses. Those who come from universities or liberal arts colleges with one, two, or three years of advanced credits may find that some of these will not apply upon the course of study they may select here. Colorado Teachers College accepts all credits from standard colleges at face value to apply as electives in its courses of study, but does not guarantee that a student having had a year's work in another school will be able to complete a two-year course here in three more quarters. Many students are able to apply their previous work upon the courses selected here without loss of time, but often students find it necessary to remain in Colorado Teachers College somewhat longer than they had expected because of the number of required technical courses in a given curriculum.

Group Courses—Students entering the College October 1, 1917, or after, are required to select one of the group courses given in detail under the departments of the College. If a student has taken courses elsewhere similar to those specified in his group course, he may, with the consent of the head of the department in which he is taking his course, be allowed to substitute the work he has already had for Colorado Teachers College work. The student may not, however, be excused from the “core required subjects” except by the heads of departments giving those courses.

Diploma—The diploma granted upon the completion of the two-year course is a life certificate to teach in any kind of school in Colorado, and is honored in many other states.

The Three-Year Course—A student who comes to the College with two years of advanced standing from another college or normal school may secure the Colorado Life Certificate by doing three quarters of residence work and meeting the requirements of the group course in which he or she is specializing.

The Four-Year Course—At least three quarters of residence study are required for the A.B. degree. For graduates of the two-year course in this college, two quarters of additional residence study are required. One quarter only is required of those who take the three-year diploma and life certificate.

The Fifth-Year Course—See the Graduate School, pages 12 to 15.

Diploma and Degree—At the end of the fourth year of study, and upon the completion of 192 quarter hours of credit, the degree of Bachelor of Arts (A.B.) in Education will be conferred, and a diploma, which is a life license to teach in the public schools of Colorado, will be granted to all students who have completed the requirements of the course they are pursuing.

Regulation Concerning Overlapping of A. B. and A. M. Work—No student will be granted the A.B. degree who has not completed 48 or more hours (three full quarters) in residence in the college. Twelve or more hours done in the group courses conducted in Denver, Pueblo, and other neighboring cities by the resident faculty of the College may be counted as one (but only one) of the resident quarters. Three additional quarters in residence are required for the A.M. degree, with the same provision concerning outside group courses.

To prevent overlapping of time and consequent misunderstanding the Advanced Standing Committee grants advanced standing never in excess of 144 hours to applicants who fall short of admission to the graduate school. Students transferring to Colorado State Teachers College when they are within one or two quarters of the A.B. degree must expect to lose some time by making the transfer.

AGRICULTURE

The courses in Agriculture given in the Summer Quarter are designed to prepare teachers to teach the subject in rural, village, and town high schools. Subject matter is emphasized, but methods and principles of teaching are adequately treated along with subject matter. Field and laboratory practice is given as much as possible.

4. Farm Crops—Four hours.

An introductory course dealing with the most important farm crops with special reference to Colorado conditions.

5. Soil Physics and Soil Fertility—Four hours.

A study of the soil with reference to its formation, fertility, and relation to plant growth.

1a. Animal Husbandry—Four hours.

A study of breeds of farm animals with special reference to market grades and classes and how to meet the market demands.

2a. The Teaching of Agriculture—Four hours.

This will be a study of the "What and How" to teach of the subject in the different types of schools in which the subject is being taught. Much time will be spent in outlining courses and selecting subject matter for the student's special type of school in which he expects to teach.

BIOLOGICAL SCIENCES

The department of Biological Sciences occupies a lecture room and two laboratories on the third floor of the main building. It is equipped with microscopes, lantern slide collection, and type specimens for the work of zoology and botany. A museum for the use of nature work is located on the first floor of the Library Building.

Biology

2. Bionomics—Required in the first or second years. Three hours. Five days a week.

A study of some of the fundamental facts and laws of biology that have a bearing on education. It forms a basis for the intelligent study of other educational subjects. It considers: Mendel's Law, heredity, eugenics, evolution and civic biology.

Zoology

5. Bird Study—Three hours. Five days a week.

A study of the Colorado birds. Consists of work in the field, combined with the laboratory and museum. The course is not a scientific study of birds, but rather, as the name implies, a study of their histories, habits, habitat, and economic importance. Students are expected to use three hours Saturday mornings for field trips. Bring outing clothes, outing shoes, and field glasses if you have them.

Nature Study

1. Nature Study—Three hours. Five days a week. Three hours extra out of door work. Dr. Adams.

Aims and principles of nature study, teaching nature, study in the grades, making of nature study programs, topics of the different seasons. The practical work consists of a study of fifty topics with outlines for their presentation in the lower grades. Students are supplied with their outlines. This work is from both the animal and plant field. Much of the work is carried on out of doors, and for this reason students should bring outing suits and shoes.

CHEMISTRY

The increasing importance of the applications of chemistry to the industries since the European War has led to intensified interest in this subject. More comprehensive and practical courses in Chemistry are being given in the High Schools than heretofore, and more Chemistry is being given in connection with the courses in Home Economics since the realization of the magnitude of the world's food problems. Likewise, teachers of Chemistry, and teachers of Home Economics with some knowledge of Chemistry, are being demanded. It is the duty of every teacher to know something of the source, preparation, and properties of foods, dyes, poisons, etc.

In the program offered by the Chemistry Department, the teacher of Chemistry will find an opportunity to augment his or her knowledge of this subject. The prospective student of Chemistry will find the program suited to his or her needs; and Home Economic students of the regular school year will be enabled to pursue one or more of the required chemistry courses.

1. General Chemistry—Three hours. Fee, \$4.00.

Two lectures and one laboratory period on the theory of chemistry and non-metals.

2*. General Chemistry—Three hours. Fee, \$4.00.

Two lectures and one laboratory period. A continuation of Course 1.

3*. General Chemistry—Three hours. Fee, \$4.00.

Two lectures and one laboratory period on the chemistry of metals. A continuation of Course 2.

4. General Chemistry—Four hours. Fee, \$4.00.

This course covers the same text book work as Course 1, but requires more laboratory work. Two lectures and two laboratory periods.

5*. General Chemistry—Four hours. Fee, \$4.00.

A more extensive course than Course 2. Two lectures and two laboratory periods. Continuation of Course 4.

6*. General Chemistry—Four hours. Fee, \$4.00.

A continuation of Course 5. Two lectures and two laboratory periods. Courses 4, 5, and 6 are required of all science students (excepting those specializing in biology, who may elect 1, 2, and 3 instead; and of Home Economics students taking the four-year course).

7. Qualitative Analysis—Four hours. Fee, \$4.00.

A laboratory and consultation course on the separation and identification of the common elements. Eight hours attendance. Prerequisite Courses 1, 2, and 3 or 4, 5, and 6.

108. Organic Chemistry—Three hours. Fee \$4.00.

Two lectures and one laboratory period. A study of the hydrocarbons and their derivatives.

*2 and 5 or 3 and 6 to be offered, depending on which is in greatest demand.

109*. Organic Chemistry—Three hours. Fee, \$4.00.

Two lectures and one laboratory period. A continuation of course 108. A study of the carbohydrates, proteins and benzine derivatives. Prerequisites for 108 and 109 are 1, 2, 3 or 4, 5, 6. Recommended to students specializing in biology or physics.

110. Organic Chemistry—Four hours. Fee, \$4.00.

Two lectures and two laboratory periods. Same text book work as Course 108, but more extensive laboratory work.

111*. Organic Chemistry—Four hours. Fee, \$4.00.

Two lectures and two laboratory periods. A continuation of Course 110. Prerequisites for Courses 110 and 111 are Courses 4, 5, 6. Required of students specializing in chemistry and of four-year Home Economics students.

112. Food Chemistry—Three hours. Fee, \$4.00.

Two lectures and one laboratory period. A study of foods, detection of adulterants, metabolism and dietary lists. Recommended as a general cultural course. Prerequisite for 112 is 1, 2, 108 and 109.

113. Food Chemistry—Four hours. Fee, \$4.00.

A more comprehensive course than 112. Required of students specializing in chemistry and of four-year Home Economics students. Prerequisites 4, 5, 6, 110, 111.

114 and 114B. Quantitative Analysis—Four or eight hours. Fee, \$4.00.

Gravimetric and volumetric analysis. A laboratory and consultation course. Eight or sixteen hours attendance. Prerequisites, Courses 4, 5, 6, 7.

117. The Teaching of Chemistry—Three hours. Fee, \$4.00.

Discussion and reports on the teaching of high school chemistry, and practice in setting up demonstration apparatus. Required of chemistry students specializing to teach the subject.

COMMERCIAL ARTS

Courses in the Commercial Department divide themselves into two groups: 1. Accounting. 2. Stenographic. Students who expect to major in the department and secure a two-year certificate should elect courses accordingly. The two-year stenographic course should be followed as outlined in the year book, with possibly some electives from the accounting course, or vice versa. Mixing courses from the two groups with no attention to the requirements in the year book might make it necessary for the student to remain in school longer in order to satisfy either of the requirements of the two-year certificate. A combination of the two two-year courses referred to above constitutes the requirement for the A.B. degree. Either of them may be taken in the first two years.

1. Principles of Shorthand—Required of Majors in Commercial Arts. Four hours. Full quarter.

A study of the first ten lessons in Gregg Shorthand with supplementary exercises.

2. Principles of Shorthand—Required of Majors in Commercial Arts. Four hours. Full quarter.

A study of the last ten lessons of Gregg Shorthand with supplementary exercises. This course completes the study of the principles of shorthand.

3. Dictation—Required of Majors in Commercial Arts. Four hours. First half or full quarter.

A brief review of word signs, phrasing and the vocabulary of the Gregg Manual, after which dictation will be given of both familiar and unfamiliar matter. Enough work will be given in this course to make one proficient in taking accurately ordinary dictated correspondence.

*To be offered in case of sufficient demand.

4. Speed Dictation—Required of Majors in Commercial Arts. Four hours. First half or full quarter.

In this course more stress will be placed upon speed in shorthand, with the idea in mind that a student finishing this course should be able to take any dictated matter. The use of the Dictaphone will be given in this course.

6. Methods in Commercial Education—Required of Majors in Commercial Arts. Three hours. Full quarter.

The entire commercial field will be included in this study; equipment; the course of study; special methods; equipment of teacher; relation of business school to the community.

11. Elementary Typewriting—Required of Majors in Commercial Arts. Four hours. First half or full quarter.

Beginning work in touch typewriting, covering position at machine, memorizing of keyboard, proper touch and correct fingering, with instruction in care of machine.

12. Typewriting. Business Letter Writing—Required of Majors in Commercial Arts. Four hours. First half or full quarter.

Study of approved forms and circular letters, addressing envelopes, manfolding and tabulating.

13. Advanced Typewriting—Required of Majors in Commercial Arts. Three hours. First half or full quarter.

17. Office Practice—Required of Majors in Commercial Arts. Four hours. Either half or full quarter.

This course consists of intensive practice in a "Model Office." Students are required to do two hours of continuous work daily, four days per week, taking dictation and transcribing. This course also includes the operation and use of modern office appliances such as the mimeograph, mimeoscope, dictaphone, adding machines, filing systems, etc. This work is very carefully systematized and consists of actual correspondence. This comes from the president's office, the deans, and heads of departments. Outside work from churches and charitable institutions is solicited also.

40. Business English—Four hours. Full quarter.

The elementary principles involved in writing correct English. The sentence, the paragraph, grammatical correctness, effectiveness, clearness, and punctuation.

50. Elementary Accounting—Required of Commercial Majors. Four hours. First half or full quarter.

A general introduction, giving the historic background of the subject and a brief statement of the profession. The foundation of double entry book-keeping. Assets, liabilities, proprietorship, the balance sheet, income, expenses, profit and loss statement. The entire class period is given to discussion and an average of one hour daily is required for laboratory work.

51. Intermediate Accounting—Required of Commercial Majors. Four hours. First half or full quarter.

Partnerships, introduction to corporation accounting, and many miscellaneous accounting and business methods. Two complete sets of books are written up in this course, one illustrating a partnership and another some features of corporation accounting.

53. Commercial Arithmetic—Required of Commercial Majors. Four hours. First half or full quarter.

A thorough treatment of arithmetic from the modern commercial point of view.

56. Penmanship—Required of Majors in Commercial Arts. Two hours. First half or full quarter.

Drill in rapid, arm-movement, business writing. The Palmer system will be used.

EDUCATION

The purpose of the course offered by the Department of Education is to give to the student a broad acquaintance with the most essential fields of educational activity. Although the work of the department must necessarily deal largely with the fundamental theories underlying the educative process, every course is so planned that the student should be able to make the application of these theories to actual practice in the school room.

1. Principles of Teaching—Three hours, required of all second year students.

Mr. Armentrout.

This course will consist of readings, discussions, and observations of classroom work in the elementary training school. It will deal with such topics as, types of classroom procedure; standards for judging both the subject matter and classroom instruction; development and use of lesson plans; socialized recitations and the project method; the ideas of enrichment, development and control of experiences and the methods appropriate to a realization of these ideas in the various grades of the elementary school from the kindergarten to the eighth grade.

2. Student Teaching in Elementary Training School—Four hours.

Mr. Armentrout.

This will include observations, conferences, supervision, and teaching on the part of student teachers.

3. Primary Methods—Four hours.

Mrs. Sibley, first half; Miss Dilling, second half.

This course is based on the needs of the child between the ages of seven and eight years. This course leads up to the selection of subject-matter which functions in the child's life. To this end a brief comparison of courses of study in some of our larger city schools is made. The latest and most scientific articles on primary methods are read and discussed. Many devices for teaching beginning reading, phonics, rhythm, spelling, songs, as well as methods for dramatization of stories, multiplication table, and practice in blackboard illustrating are given.

4. Intermediate Grade Methods—Four hours.

Miss Metsker.

The course is based on the needs of the child between the ages of ten and twelve. It will consist of (1) a review of the most significant things in child study common to children of this period; (2) a comparison of courses of study for these grades; (3) the building of a course of study; (4) methods of presenting the material of the curriculum of the intermediate grades.

7. Practical Projects in Primary Grades—Two hours first half, one hour second half. Either or both half quarters.

Miss Tutcher, first half; Miss Kirkbride, second half.

This course will deal with practical problems and projects in the work of the primary grades.

8. Educational Values—Three hours. Full quarter. Required of all students, first year.

Mr. Wright.

The purpose of this course is to give the student a critical attitude toward the material presented in the various school subjects. Each subject of the elementary school will be considered as to the reason it has for a place in the curriculum today; how it has been justified in the past; and how it may be presented now so as to be more fully justified. Recent magazine articles and text-books will be studied with a view to developing the attitude of looking for the material which is of greatest educational value of the child.

10. The Elementary School Curriculum—Three hours. Full quarter. Required of all students, second year.

Mr. Hall-Quest, first half quarter; Dr. Horn, second half quarter.

This course will deal with the aims, materials, and methods of the elementary school. The course should make the student intelligently critical of programs of study in the elementary school.

13. The Teaching of Spelling—Two hours. First half.
Mr. Armentrout.

The purpose of this course is to present the most reliable and certain facts in teaching of spelling and to present them in their relation in the practical problems which the teacher has to face every day in the class room. The following problems will be discussed: The selection and classification of words; testing for word difficulty; a psychological basis of spelling; the presentation of words; the prevention and treatment of errors; the measurement of spelling ability; factors effecting spelling ability.

A study and classification of the different types of stories, songs, and games according to their fitness for various ages and purposes.

15.—Vocational Guidance—Two hours. First half quarter.
Dr. McCracken.

This course will deal with the place of vocational guidance in public school systems. Among other subjects it will treat of the need and value of the study of occupations, vocational analysis, opportunities for vocational education, opportunities for employment, the work of placement and vocational bureaus and various guidance agencies in this and other countries.

16. Girls' Camp Fire Work—One hour. Each half quarter.
Miss Lee.

This course is intended for those who wish to become Camp Fire Guardians. Groups will be organized into regular camp fires and do the work usually required of girls in such groups.

17. Boy Scout Work—One hour. Each half quarter.
Dr. Adams and others, first half; Mr. Gruver, second half quarter.

This course is intended for those who wish to become Boy Scout Masters.

21. County School Problems—Two hours. Each half quarter.
Mr. Burrows.

This course considers the problem of the county school, the teacher, the child, the school board, and the community.

22. Student Teaching in County Demonstration Schools—Two hours. Second half quarter.
Mr. Burrows.

A two-teacher rural school will be available for observation and teaching. The work is intended to meet the needs of those who expect to work in rural schools.

26a. The County School Curriculum and the Community—Two hours each half quarter.
Mr. Burrows.

This course will present the problems of the teacher who desires to instruct country children in terms of their environment. Methods and materials for such instruction will be outlined and discussed. Special attention will be given to ways and means for vitalizing the subjects in the course of study.

27. The General Lectures—Required of all undergraduate students.

Lecturers: Dr. E. C. Hayes, Dr. Edward H. Griggs, Dr. Lincoln Hulley, Dr. Edward A. Steiner, Dr. Edward L. Thorndike, Dr. William F. Snow, Dr. O. T. Corson, and others.

51-53. Literature, Songs and Games for Kindergarten and Primary Children—Four hours.
Miss Lyford.

A study and classification of the different types of stories, songs, and games according to their fitness for various ages and purposes.

103. Student Teaching in the Secondary Training School—Four hours.
Mr. Armentrout.

This course will include conferences, observations, supervision and teaching under the direction of the training teacher.

105. Principles of High School Teaching—Four hours.

Mr. Brown.

This course is designed to develop those principles of teaching and features of methodology which are particularly applicable to high school teaching. A text-book is used as a basis, but this is supplemented by individual reports, class discussions, and special papers. There will also be directed observation of high school teaching. Some of the topics to be considered are: Characteristics of adolescence; types of disciplinary control; economical classroom management; types of instruction; lesson planning, and supervised study.

108. Educational Supervision—Two hours. Each half quarter.

Mr. Newlon, Dr. Dyer and Dr. Chadsey.

This course will deal with problems of supervision in school systems. It will be of especial value to those who expect to become superintendents or supervisors.

109. High School Supervision—One hour. Each half quarter.

Mr. Hall-Quest, first half quarter; Dr. Horn, second half quarter.

Persons who have shown an unusually high degree of efficiency in high school teaching may be allowed to assist in the supervision of the high school work. This training will afford them a more comprehensive view of the work and practice in the supervision of the training of younger teachers. This experience is intended primarily for those who are preparing themselves to be principals and superintendents or to fill other positions of responsibility in public school work.

110. Supervised Study—Two hours. Each half quarter.

Mr. Hall-Quest, first half quarter; Dr. Horn, second half quarter.

This course will deal with the entire field of supervised study. Model supervised study rooms will be available for observation.

110a.—Observation of Supervised Study—One hour. Each half quarter.

Mr. Hall-Quest, first half quarter; Dr. Horn, second half quarter.

The purpose of this course is to acquaint students with the actual administration of supervised study as carried out in the model school of supervised study.

111. Philosophy of Education—Four hours. Full quarter. Required fourth year.

Mr. Wright, first half quarter; Dr. Horn, second half quarter.

This course is designed to set forth the underlying principles of educational theory. It treats of the theory of instruction and training with the child as the concrete basis; the aim and meaning of education; educational values; the theory of management and control; and the technic of practice. Some of these are discussed very briefly as they form the basis of other courses. Practical applications of theory are constantly made.

113. Organization and Administration of the Junior High School—Two hours. Each half quarter.

Mr. Wright, first half quarter; Mr. Gruver, second half quarter.

In this course the following points will be considered: Organization; standards for judging junior high schools; historical development; the program of studies; the daily schedule of classes; courses of study for the various subjects; the qualification of teachers, etc. After many representative junior high schools of the United States have been considered from the above mentioned standpoints, each student will arrange a program of studies, and a course in one subject for a junior high school in some designated community.

114. Primary Supervision—Two hours. Each half quarter.

Miss Tatcher, first half quarter;

Miss Kirkbride, second half quarter.

This course is intended to meet the needs of kindergarten and primary supervisors.

116. The High School Curriculum—Two hours. Each half quarter. Required fourth year.

Mr. Wright, first half quarter; Mr. Gruver, second half quarter.

In this course a practical study of the curriculum of various small high schools and junior high schools of this and other states will be made. Educational values and the needs of the community will be considered in the course. A detailed course of study for both the junior and the senior high school will be outlined by each student.

142. Educational Administration—Two hours. Each half quarter.

Mr. Newlon, first and second weeks; Dr. Dyer, third to eighth weeks; Dr. Chadsey, ninth and tenth weeks.

This course is designated primarily for students preparing themselves as principals, superintendents and supervisors. After making a survey of the field of educational administration, the students may select the line of administration in which he is most interested for study and research.

152. Principles Underlying the Education of Children in the Kindergarten and Primary grades—Two hours. Each half quarter.

Miss Lyford, first half quarter; Miss Kirkbride, second half quarter.

This course is intended to be of help to kindergarten and primary teachers and supervisors.

Courses Primarily Graduate School

223. Research in Education—Hours dependent upon amount of work done. Open only to students who are present the full quarter.

Mr. Armentrout, Mr. Burrows, Dr. McCracken and others.

This course is intended for advanced students capable of doing research in educational problems. Each student may choose the problem of greatest interest to him, provided sufficient opportunity is at hand for original investigation. The results of such research are to be embodied in a thesis. Conference course at hours convenient to instructor and student.

229a. Current Educational Thought—Two hours. First half quarter.

Dr. McCracken.

This course will consist of reviews and discussion of recent books in the various fields of education.

229b. Current Educational Thought—Two hours. Second half quarter.

Dr. McCracken.

This course will consist of reviews and discussions of recent magazine articles in the various fields of education. One of the chief purposes of the course is to acquaint teachers with the best educational magazines.

246. Seminar for Superintendents and Principals—One hour. Each half quarter.

Mr. Newlon, Dr. Dyer and Dr. Chadsey.

This course is intended to be a clearing house where superintendents and principals may discuss their special problems with a view to a proper solution of them. It will be primarily a discussion group.

EDUCATIONAL PSYCHOLOGY

The courses of this department have been arranged with the general purpose of making the student familiar with the important contributions which psychology has made to such phases of education as school organization and administration, the aims of education, and the best means of realizing these aims. The whole public school system is viewed from the standpoint of the nature and needs of the child. An attempt is made to point out what the school should be in order to preserve the child's physical and mental health, respect his native capacities and tendencies, secure his normal development, utilize his most natural modes of learning, and promote and check up the efficiency of his responses. More specific statements of the purposes of the department are given below in the descriptions of the individual courses.

The department offers two curricula, the one in Psychology and the other in Special Schools and Classes. The first prepares the student to teach psychology in normal schools and high schools and to fill such positions in clinical psychology as are developing in connection with

public school systems. The second prepares the student to take charge of special schools and classes, especially such as are designed for backward and feeble-minded children. Students who elect either of these curricula are advised to take at least six courses of the curriculum of some other department. See Year Book for outline of curricula.

All of the courses of this department run through the full quarter, but they are open to students who can attend only one of the half quarters.

1. Child Hygiene—First year. Three hours. Full quarter. Required of students who specialize in any of the curricula of the Training School.

The main purposes of this course are: (a) to point out how the child's school progress and mental and physical development are arrested, and how his health and behavior are impaired by the physical defects which are very prevalent among school children; (b) to discuss the causes of defects, the methods of preventing and detecting them, and the measures which are required for an effective amelioration or cure.

The following topics will be treated: educational and economic values of health; the need of health conservation; deformities and faulty postures; air requirements; malnutrition and school feeding; hygiene of the mouth; enlarged adenoids and diseased tonsils; defective hearing; defective vision.

2. Educational Psychology—

a. Three hours credit, four hours recitation. Required of all students. Second year. Full quarter.

The purposes of this course are: (a) to make the student familiar with the child's capacities, tendencies and native responses and to show him how they, and the nature and order of their development, are involved in the process of educating the child; (b) to discuss such conditions of the school-room and school activities as will avoid fatigue and promote work.

The following topics will be treated: The child's native equipment; mental work and fatigue.

b. Three hours credit, four hours recitation. Required of all students. Second year. Full quarter.

Purposes of the course: (a) to acquaint the student with the various modes of learning and the conditions which facilitate learning; (b) to discuss the nature of individual differences and point out their significance for instruction and the arrangement of school work.

General topics: The psychology of learning; individual differences.

104. Psychology of Elementary School Subjects—Third year. Four hours. Required. Full quarter.

The purposes of this course are: (a) to make an analysis of the school subjects with the object of determining what mental processes, and modes and conditions of learning are involved in studying them; (b) to review the results of experimental studies on the methods of teaching and learning the school subjects; (c) to discuss the necessity of varying the methods of teaching, and learning the school subjects with the progress made and with individual differences in children; (d) to criticize methods of instruction in the light of individual requirements, the results of experimental studies, and the mental processes involved in a given subject.

Topics treated: The elementary school subjects.

105. Psychology of the High School Subjects—Third year. Four hours. Required of students preparing to teach in the high school in lieu of Course 104. Full quarter.

The purposes of the course are: (a) the same as those enumerated in Course 104; (b) to familiarize the student with educational tests which are designed to measure the level of the child's performance in the high school subjects.

Topics treated: The high school subjects.

107. Mental Tests—Four hours. Full quarter.

The purposes of the course are: (a) to make the student familiar with the means and methods which are employed to determine the child's general intelligence and the efficiency of his individual mental processes; (b) to point out the social, educational, psychological, and vocational significance of tests.

Topics treated: Various forms of individual tests, such as the Binet series and its modifications; various forms of group tests, such as the Army, Otis, National, and Pressey tests; tests of perception, memory, imagination, thinking, attention, psycho-motor control, and various combinations of mental processes.

108. Educational Tests and Measurements—Four hours. Fourth year. Required. Full quarter.

Chief purposes of the course: (a) to give the student a working knowledge of the best instruments for measuring the child's school progress and his performance level in the school subjects; (b) to discuss the methods of using the educational tests and tabulating the results; (c) to point out their educational significance in all of its phases.

Topics treated: Tests and standards of reading, writing, spelling, arithmetic, geography, and all the other elementary school subjects.

212. Psychological and Statistical Methods Applied to Education—Four hours. Full quarter.

Purposes: (a) to give school officials the technique necessary for the solution of educational problems involving the accurate measurements of mental processes; (b) to present the statistical methods employed in the treatment of educational data.

213. Conference, Seminar, and Laboratory Courses—Hours depending upon the amount of work.

Purposes: To make possible more intensive and exhaustive work by the student on problems of special interest to him.

Topics: Formal discipline; sex hygiene; retardation; mental tests; learning; retinal sensations; space perception, etc.

FINE AND APPLIED ARTS

The Department of Fine and Applied Arts aims to prepare teachers to meet all the demands made upon regular teachers in public schools from the kindergarten through the high school in all branches of drawing, and to train special students to act as departmental teachers and supervisors in Fine and Applied Arts. The courses are open as electives to all students of the College.

The department is well equipped. In addition to the regular equipment there is a museum of ceramics, original paintings, reproductions, and copies of masterpieces. The Museum of Ceramics is a collection of pottery, containing ancient and modern specimens from different countries.

2. Primary Grade Methods—Four hours.

Freehand drawing, elementary perspective adapted to lower grade illustrations, color, elementary design, animal drawing, nature, blackboard drawing.

13. Applied Art for Primary Grades—Four hours.

Weaving, folding, cutting, stick printing, problems for special days, clay modeling, sand table projects.

3. Freehand Drawing—Four hours.

Perspective, drawing from objects and casts, nature drawing. Mediums, charcoal, pencil, colored chalk.

5. Water Color Painting—Three hours.

Studies from still life, nature and landscape.

1. Grammar Grade Methods—Four hours.

Elementary perspective, object drawing, elementary design, correlation of art with the other subjects of the curriculum.

7. Constructive Design—Four hours.

Design and its application to problems in wood, block print, leather, toys and basketry.

102. Commercial Art—Four hours.

Lettering, posters and pictorial advertising, design and color.

12. Household Art Design—Four hours.

The execution of designs for interior decorations and costumes.

16. Antique Charcoal Drawing from Casts—Four hours.

101. Drawing from Life Study from Costumed Model—Four hours.

14. Applied Art for Intermediate and Grammar Grades—Four hours.

Application of design and color to paper construction, toys, basketry, book covers, block print. Relation of Art to three other subjects in the curriculum.

FOREIGN LANGUAGES

French

1. Beginning French—Four hours.

Holbrook's Living French and easy texts.

5. Intermediate French—Four hours.

A review course in French grammar for teachers of French and others whose foundation in this language has not been strong enough to meet present day requirements. Carnahan's Grammar and Composition book will be used as the basis for this course.

106. Advanced French—Four hours.

Devoted to French drama of the 19th century. Lavedan, Brioux, and Bernstein will be some of the authors studied. For students who have had two or more years of French. Conducted entirely in French.

210. Graduate French—Four hours.

A course in 17th century fiction. A choice of eight or ten authors of this period will be given.

Spanish

1. Beginning Spanish—Four hours.

Wilkin's First Spanish Course and elementary readings.

5. Intermediate Spanish—Four hours.

A course based upon the texts usually read in second and third year's work in high schools, with abundant drills in grammar and composition work and sight reading and dictations. Texts of very recent appearance will be chosen. For teachers of Spanish and students intending to teach the language.

105. Advanced Spanish—Four hours.

Devoted to modern Spanish fiction. Alarcon, Galdos, Ibanez, and Sierra. Conducted in Spanish.

210. Graduate Spanish—Three hours.

A course in old Spanish readings and outside work in Vulgate Latin and Old Provençal. For students who have had considerable Spanish. A knowledge of French and Latin is desirable, though not absolutely necessary.

Note. Any of the above courses, excepting Courses 1 in both French and Spanish, may be taken for three hours instead of four. In which case, the days will be Monday, Wednesday, and Friday instead of first four days.

Latin

1. Beginning Latin—Four or five hours.

A beginning course in Latin, using Bennett's First Year Latin. For high school and college students.

5 or 10. Intermediate Latin—Four hours.

Using any one of the following authors: Caesar, Cicero, or Virgil. For high school teachers of Latin.

105. Advanced Latin—Four hours.

Devoted to any one of the following authors: Livy, Horace, Juvenal, or Plautus. One hour a week to be devoted to a study of Latin manuscripts or to prose composition.

All of the above courses will be continued and the numbers of each course will be advanced so as to read as follows: 2, 6, 106, 211, in both French and Spanish. In Latin courses will read: 2, 6, 11, and 106.

Other Languages

A first-year course will be offered, by advanced enrollment only, in any of the following languages: Italian, Portugese, Esperanto, and German. Advanced courses in German may be offered if desired.

GEOLOGY, PHYSIOGRAPHY AND GEOGRAPHY

The courses listed in this department are not review courses covering merely the material taught in the common schools. Such review courses are listed in the high school department for which no credit is given toward graduation from the college. Geography is not just a group of facts about different parts of the world. It is a definite science in which, in the underlying climatic and geologic causes, the superstructure of commercial and human factors is built. It is from this point of view that the work of this department is given.

12. Geography Method—Two hours. Repeated second half quarter.

A course in which the history of geography teaching is taken up, followed by a discussion of the relative values of various methods of presentation. The materials suitable for each grade will be discussed.

5. Geography of Europe—Four hours. Continuous through the full quarter.

It is recommended that this course follow Course 4, as it is based upon the material presented in that course. We endeavor to understand Europe in climatic and geologic terms of our own continent. The new boundaries and new countries are stressed.

103. Climatology—Four hours. Continuous through the full quarter.

This is a thoro study of the climatological basis of the science of geography designed for those who desire to know more in detail the climatological aspect of geography. The observational side of the subject will be stressed. Advantage will be taken of our meteorological apparatus to compile weather data. The sources of meteorologic and climatic statistics will be noted in the lectures and the students will be encouraged to write themselves and build up a library of statistical material for use in their schools later.

8. Human Geography—Four hours. Continuous through the full quarter.

The relation of man to his environment and the various type environmental realms, as, for instance, the desert, tropical forest, mountains, etc., will be taken up. Required in the Intermediate, Sociology and History Courses.

HISTORY AND POLITICAL SCIENCE

11. Commercial History of the United States—Four hours. Full quarter.

A survey of commerce in early times; colonial commerce and its influences; the several periods of American commerce, domestic and foreign; government aid; relation of commerce to business development; and government supervision.

30. Political Adjustment—Three hours. Full quarter.

American political theory; democratic ideals and values; opportunities and obligations of citizenship; principles of American Government; inter-relations of the individual, education, and the forms and processes of community organization.

13. The Teaching of History—Two hours. First half quarter.

History of history instruction in the schools; aims and values of history instruction; the course of study; methods and materials; testing results of instruction; school problems related to history teaching.

26. The Teaching of Civics—Two hours. Second half quarter.

The development of civics instruction from the study of the Constitution to the present community civics; value of civics in education for citizenship; purposes of instruction in government; courses of study; methods and materials for the several grades of instruction.

123. International Relations—Four hours. Full quarter.

A study of the principles of international relations, traced historically; development and application of these principles in recent European relations; American international ideals and policies; the working of the League of Nations.

212. American Constitutional Development—Three hours.

Origin of the Constitution; interpretation of the document; services of the law courts; great cases of interpretation of the Constitution.

HOME ECONOMICS

The Home Economics Course not only trains teachers of Home Economics, but also trains homemakers in the selection, use, and care of materials for the home. It has as an ideal the establishment of sane standards of living, including the economic, social and aesthetic sides of life.

It will be the policy of the Home Economics Department in future to recommend, as teachers of the subject, only those students who have completed the four years' course.

Household Arts

5. Drafting and Pattern Making—Four hours. Double period. Fee, 35 cents. Mrs. Wiebking.

This course teaches the making of patterns, by drafting, modeling, and designing. It is a prerequisite to the dressmaking.

108. Advanced Costume Design—Four hours. Double period. Mrs. Wiebking.

This course is a continuation of Course 107, and will offer opportunity for effective draping of fabrics on the human figure. It requires the purchase of suitable materials for a formal dress.

110. Millinery—Four hours. Double period.

Miss Roudebush.

A course in renovation, pattern making, and construction of hats for summer and fall.

Household Science

108. Home Management—Four hours. Single period.

Miss Roudebush.

This course includes the care of the family, budgets, relation of home to community interest.

1 or 3. Foods and Cookery, or Cookery and Table Service—Four hours. \$3.00 fee. Double period. Miss Lundberg.

H. Sc. 1 offers instruction in the principles of cooking, while H. Sc. 3 teaches the planning, preparation, and serving of various types of meals.

103. Dietetics—Four hours. Fee \$3.00. Three lectures and one laboratory period. Miss Lundberg.

The study of food values for families living under varying conditions. Chemistry is a prerequisite. A general course in nutrition will be offered. This course will be suited to those not having had the chemistry required by Dietetics students.

HYGIENE AND PHYSICAL EDUCATION

Students registering for the first time should make an appointment on registration day for the required health and dental examinations. **Registration is not completed until these examinations have been made and recorded.** These examinations are for the purpose of assisting students with their personal health problems and are free. The Medical and Dental Advisers keep regular office hours for free consultation regarding any or all individual health matters. The College does not, however, undertake any medical or dental treatment.

Students registering for practical (exercise) courses should dress in gymnasium costume and be ready for work at the first meeting of the class. Students coming to class in street clothing will be marked "absent." No exceptions will be made to this rule.

The courses offered by this department are divided into two classes as follows:

I. Information Courses in Hygiene, Physical Training and Play.

These courses do not fulfill the College requirement for activity. Hygiene and Physical Education Courses Nos. 7 and 8 are required of all except third and fourth year and graduate students. Hygiene and Physical Education No. 8 should be taken during the first year; Hygiene and Physical Education No. 7 during the second year.

II. Practical Courses in Physical Training, Play and Athletics.

One course is required each quarter during the first and second years.

I. Information Courses

1. Physiology and Hygiene of Exercise—Four periods. Four hours.

Lectures, demonstrations, recitations. A required course for Physical Education Majors, but open to others who have had biology.

2. Anatomy and Kinesiology—Four periods. Four hours.

Lectures, demonstrations, recitations. Use is made of skeleton, mannikin, charts and anatomical atlases in connection with text book assignments.

Required of Physical Education Majors during the first year. Open to others who have had biology.

6. Research in Physical Education. (See also Education 223.)

Qualified third and fourth year and graduate students may select a subject for research in Physical Education. The following subjects are suggested, but other suitable subjects may be chosen:

1. The status of physical education in the schools of Colorado, with a proposed plan for improvement.

2. The playground and recreation movement; its rise, growth, and present status.

3. A recreation survey of a selected community with a suggested plan for improvement.

4. Analytical study of the educational values of certain plays and group games.

5. Educational Athletics: Plan for a county or city school system.

6. Effects of the World War on the status of physical training in different countries.

7. Physical Education in the reconstruction program.

8. Physical efficiency forms for elementary school children

By arrangement. Three or more hours, depending on the amount and quality of work accomplished.

7. General Hygiene—Three periods. Three hours. Required of all second year students. Men and women.

A lecture, discussion course on general hygiene. Many lectures are illustrated. Consideration is given to: (a) mortality statistics as a basis for effective hygiene; (b) agents injurious to health; (c) carriers of disease; (d) causes of poor health; (e) defenses of health; (f) producers of health.

8. Individual Hygiene—Three periods. Full quarter. Required of all first year students. Men and women.

An informational course on the essentials of individual health conservation and improvement. Different sections for men and women.

9. Child and School Hygiene—Four periods. Four hours.

A course in Child and Educational Hygiene (see Education Psychology 1).

12. First Aid—Four periods. Two hours. Either half quarter.

A course covering the essentials of first aid in cases of accident or illness. The Red Cross Text Book is followed. Those who complete course may receive the Red Cross Certificate for First Aid.

II. Practical Courses

In order to secure credit for a full quarter in fulfilling the administrative regulation requiring "physical education exercise courses during each quarter in residence" during the first two years, it is necessary to carry one practical course throughout the entire Summer Quarter.

Carrying one or more practical courses through a half quarter does not give credit for a full quarter nor relieve a student from the necessity of carrying a practical course through the second half to secure credit for a full quarter's work.

The Following Are Activity Courses:

106. Singing Games and Elementary Folk Dancing—Four periods. One or two hours. Either half or full quarter. First year students.

A course for those desiring rhythmic material for the lower grades.

107. Folk and National Dances—Four periods. One or two hours. Either half or full quarter. First year students.

A selected list of folk and national dances suitable for school and playground use, especially for upper grade and high school groups. Two sections.

108. Esthetic Dancing—Four periods. One or two hours. Half or full quarter. Students entering second half must secure approval of instructor. Second year students only.

Technic of the dance; plastic exercises, the development of bodily coordination and rhythmical responsiveness.

111. School Gymnastics—Four periods. One or two hours. Either half or full quarter. First or second year students.

Class organization and conduct, marching, free, dumb-bell, wand, and Indian club drills, principles of selection and arrangement of exercises, practice in organizing and leading drills, working out daily programs for different grades under school conditions.

112. Plays and Games—Four periods. One or two hours. Half or full quarter. First year students.

A selected list of plays and group games suitable for use in the lower grades.

113. Play, Playground Organization and Conduct—Four periods. Three hours. Full quarter. Second year students.

The meaning of play; relation to mental and physical development; importance in moral and social training. One lecture and three practice periods per week. Required reference work.

114. Athletics for Women—Four periods. One or two hours. Half or full quarter. Second year students.

A course in group and team games. Play material suitable for upper grades and high school will be presented.

115. Recreation Course—Four periods. One or two hours. Half or full quarter. Open to all.

A recreational activity course for men and women.

116. Athletic Team Games (Men)—Four periods. One or two hours. Half or full quarter.

Lectures, field practice, competition; administration of athletics, athletic budgets and equipment, training and conditioning teams; discipline, etc., will be the topics. The course is planned to meet the needs of school principals and teachers interested in the athletic problems of schools.

117. Gymnastics (Men)—Four periods. One or two hours. Either half or full quarter.

A course in heavy gymnastics and combat games for men.

LITERATURE AND ENGLISH

The courses offered in Literature and English fall into three classes:

1. Courses in grammar and composition.
2. Courses in methods of teaching Literature and English in elementary and high schools.
3. Literary courses, cultural in nature, or intended to equip a high school teacher of English with the teaching materials and a literary background.

Required English—The College wishes to assure itself that all students who go out as graduates to teach children and all who teach in its training school will not misuse the English language in the presence of school children. It realizes that students, who have all their lives spoken incorrect English, cannot altogether change their habits in three or six months. The best thing it can do, then, seems to be to require all students to take a course in grammar and oral and written composition. The head of the English department may excuse from taking this course any student who speaks and writes English exceptionally well. But those whose speech habits are unusually bad may be required to take a second practice course. The College will positively refuse to graduate a student who cannot write and speak the English language with a fair degree of accuracy and ease. It will also qualify its recommendation of a student to a superintendent or school board if the student's English is only passable.

Co-operation of Other Departments With the English Department—All the departments in the College are invited to co-operate with the English department to secure a reasonable degree of correctness in spoken and written English. Teachers are invited to call the attention of the English department to any student whose English is poor.

Any instructor may require any student in his department who shows a deficiency in oral or written English to report to the English department for further instruction, even though the student has already met the catalog requirement in English.

1. Material and Methods in Reading and Literature—Two and a half hours.

A study of motivation in the field of reading, oral and silent, for children; the consideration of principles governing the choice of literature in the grades; practice in the organization and presentation of type units, including dramatization and other vitalizing exercises. A somewhat flexible course, affording opportunity for intensive work within the scope of any grade or grades, according to the individual need or preference.

2. The Teaching of Written English—Two and a half hours.

This course takes up the problems of teaching formal English, both spoken and written, in the intermediate grades, and the junior high school. The functional teaching of grammar is included.

3. Public Speaking and Oral Composition—Two and a half hours.

The endeavor of this course is to establish the student in habits of accurate speech, and to encourage fluency, vigor and logical marshalling of his thought in discourse of varied types, including exposition, description, narrative, oratory, argumentation, free dramatization.

4. Speaking and Writing English—Required of all students unless excused by the head of the English department. Three hours.

Grammar, and oral and written English, from the point of view of their function in guiding the student in the correct use of English in speaking and writing. Practice in sentence making, sentence analysis, recognition of speech faults, and the means of correcting them; and practice in both oral and written composition.

6. American Literature—Four hours.

A course in American literature following the plan of Courses 8, 9, and 10 in English literature.

9. The History of English Literature—Four hours.

A reading course following the development of our literature from 1625 to 1798.

13. The Art of Story Telling—Two and a half hours.

A study of the main types of narrative, with emphasis upon the diction and manner suitable for each. Practice in the art of story telling.

15. Types of Literature—Two and a half hours.

A reading course looking toward an appreciation of literature and covering all the types of literature that can be made **interesting** to young people and to contribute to the formation of good taste in reading. This would include English, American, and Foreign literature which has become classic. But no matter how "classic" it is, it still must be attractive. The types covered will be lyric, narrative, and epic poetry, drama, essay, story, novel, letters and biography.

16. Types of Contemporary Literature—Two and a half hours.

A second appreciation course similar to Course 15, but dealing with the literature of not more than ten years back. Most teachers of literature leave the impression that literature must age like fiddles and wine before it is fit for human consumption. Such is not the case. Much good literature is being produced every year. After students leave school it is just this current literature that they will be reading if they read at all. We want to help them form a discriminating taste for reading, and to acquire a liking for reading so that they will be alive to what the world is thinking, feeling, doing, and saying after they leave the school.

105. Oral English in the High School—Two hours.

The discussion of practical problems concerning the direction of Oral English in the secondary school: oral composition, literary society and debating activities, festivals, dramatics.

106. The Teaching of English in the High School—Two and a half hours. Spring quarter.

Principles for the selection of literature for senior high school pupils considered critically; illustrative studies in the treatment of selected pieces; study of types of composition work for high schools, with illustrative practice in writing.

121. Nineteenth Century Poetry—Two and a half hours.

A study of English poetry from Wordsworth to Tennyson, including Coleridge, Byron, Shelley, Keats, and the lesser writers from 1798 to 1832.

122. Victorian and Contemporary Poetry—Two and a half hours.

Tennyson and Browning, and the general choir of English poets from 1832 to 1892, and an attempt to estimate the significance of current tendencies in poetry, English and American; supplemented by sufficient reference to current verse of other literature to afford comparison or analogy.

127. Selected Plays of Shakespeare—Two and a half hours.

The life of Shakespeare and a literary study of the plays which are appropriate for high school use, with a proper amount of attention to the method of teaching Shakespeare in high schools. Some account of the theater in Shakespeare's time.

134. Modern Plays—Four hours.

Reading and class discussion of thirty plays that best represent the characteristics, thought-currents, and the dramatic structure of our time.

Graduate Courses

Graduate students may take any course in the Department of Literature and English numbered above 104.

230. Conference Course—This course number is intended to cover special study in collecting material for the thesis required for the degree of Master of Arts in the department of English. The assignments will of necessity be made individually to each student preparing a thesis.

MATHEMATICS

There has been a rather wide-spread idea among school administrators that anyone with a knowledge of subject matter could teach mathematics. As a result we have in many of our schools specialists in English, History, Latin, and various other subjects assigned to take classes in Algebra and Geometry. This again has led to some severe statements as to the value of the whole subject of mathematics in the secondary schools. What we need is a great number of teachers trained to teach mathematics as it should be taught.

The aim of every course given here is to train students to go out and teach this ancient branch of science so that it will have the very highest value to the one taught.

1. Solid Geometry—First half or full quarter. Four hours.

This course takes up the ordinary theorems of solid geometry and at the same time emphasizes the main points to be kept in mind by the teacher in presenting the subject of geometry.

2. Plane Trigonometry— First half or full quarter. Four hours.

Of all the secondary mathematics subjects trigonometry presents the greatest number of contacts with actual problems outside of the classroom. This fact is used in presenting the subject here. The surveyor's transit and chain are used freely.

6. College Algebra—Either half or full quarter. Four hours.

The work begins with a review of the work of elementary algebra with special attention to a clear understanding of the principles involved. The needs of those who expect to teach high school algebra are constantly kept in mind.

7. Analytic Geometry—First half or full quarter. Four hours.

Modern high school algebra is of such a nature that no teacher of this subject can come anywhere near reaching full efficiency without a knowledge of analytics. This course gives a clear logical treatment of the subject that can be easily mastered in a quarter's work.

8. The Teaching of Arithmetic—Two hours, first half quarter.

This course deals with modern movements and methods in the teaching of arithmetic. The actual problems of the class room are considered and ways and means of solving these problems presented and discussed. The aim is to give those who take the course something they will find of real help in teaching when they get into the school room.

100. The Teaching of Secondary Mathematics—Two hours. Sec-

In this day of unrest and progress the teacher who stands still is soon far behind his fellows. The object of this course is to consider the recent developments in the teaching of Secondary Mathematics and to give such suggestions and help as will make the teaching of algebra and geometry vital.

101. Differential Calculus—First half or full quarter. Four

It is in the subject of calculus that the student gets his first real glimpse of the almost unlimited power of mathematics. To the teacher of even secondary subjects it gives an inspiration and a breadth of view that means much for his success in the class room. The course as here given covers the usual fundamentals of differential calculus.

More advanced work in the field of mathematics may be arranged for by consultation with the head of the department.

MUSIC

The courses offered by the department are of two kinds: (a) Courses which are elementary and methodical in their nature and are meant to provide comprehensive training for teachers who teach vocal music in the public schools.

(b) Courses which treat of the professional, historical, literary and esthetic side of music, or for those who wish to become supervisors or professional teachers of vocal and instrumental music.

Courses for grade teachers and general students: Music 1, 2 and 3.

Courses for supervisors and professional teachers of music: Music 2, 105, 7, 8, 9, 10, 12, 13 and 14.

Courses which are cultural in their nature, and meant for the general or special student: Music 7, 10, 12, 13 and 14.

Private Instruction

The Conservatory will be in full operation during the entire Summer Quarter. Students wishing to begin vocal or instrumental study or to continue their study while attending the Summer School will find an ideal opportunity to study with unusually accomplished teachers at very attractive rates.

The fixed policy of the Conservatory is to provide individual instruction of the highest possible artistic type at a considerably lower cost than is usually charged for the same grade of instruction. This is made possible because the state assumes all actual expense of salaries of teachers, and other overhead expenses, as it does in all other college subjects.

Especially attractive rates will be made to professional students or serious students who may wish to take two or more lessons per week. A flat reduction of 10 per cent will be made to students wishing to take advantage of this opportunity. Rates will be furnished upon application. Practice rooms may be secured at the College.

Recitals by the Musical Faculty and by students will be given during the summer session.

The Chorus will present a program of worth-while numbers during the quarter. Those interested in choral singing should register for Music 6 the first week of school. Frequent recitals will be presented by the Philharmonic Orchestra to which all students will be invited.

Vesper concerts will be held each Sunday afternoon, to which the students of the College and their friends are invited. A comic opera will be presented during the Summer Quarter. Students interested in participating should apply to the director during the first week of the quarter.

In case there is sufficient demand a special group of carefully picked students will form a Glee Club. Students interested in this organization should report to the director as early in the quarter as possible.

2. Methods for the First Eight Grades—Three hours.

A very practical course for teachers, in which the material used in the public schools is studied and sung, with suggestions as to the best ways to present all phases of the work. Prerequisite for this class, Music 1 or its equivalent.

Music 2a—Required of Majors in Music. Three hours.

Methods for the Primary Grades. The teaching of Rote Songs. How to help Monotones. The development and care of the child voice. A delightful repertoire of Rote Songs is acquired. The work of the first three grades is studied intensively. The first steps in technique.

Music 2b—Required of Majors in Music. Three hours.

Methods for the Intermediate Grades. An intensive study of the problems of the teacher of these grades. Sight Reading, Interval Drill, Signature of keys (major and minor), Care of the Voice. All problems of these grades considered and practical solutions offered.

Music 2c—Required of Majors in Music. Three hours.

Methods for Junior High School. Material and methods for the crucial period in the musical career of the child. The changing boy voice. Intensive study of part singing. Musical appreciation for these grades. A practical course to meet the needs of the teacher.

3. Kindergarten and Primary Music—Two hours.

Designed especially for kindergarten and primary teachers. Songs and music adapted to children of these departments will be studied and sung. The care and development of the child voice; the teacher's voice; methods of instruction; practice singing and rhythm exercises will be presented.

6. Chorus Singing—One hour.

Worth-while music and standard choruses are studied and prepared to present in concert.

8a. Harmony—Required of Majors in Music. Three hours.

Beginning harmony. The work consists of written exercises on basses (both figured and unfigured) and the harmonization of melodies in four voices. These are corrected and subsequently discussed with the students individually. Work completed to the harmonization of dominant discords and their inversions.

8b and 8c—Required of Majors in Music. Six hours.

Harmonization of all discords. The circle of chords completed, modulation, etc. The harmony courses continue throughout the year, and the work is planned to meet the individual needs of the class.

9. Advanced Harmony—Three hours.

A continuation of Courses 8a, 8b, and 8c.

10. Methods in Appreciation—Required of Majors in Music. Two hours.

This course is planned to prepare teachers to present more intelligently the work in Appreciation of Music, for which there is such a growing demand in all our schools. A carefully graded course suitable for each grade is given. The lives and compositions of the composers from Bach to Wagner are studied.

12. Individual Vocal Lessons—Required of Majors in Music.

Correct tone production, refined diction and intelligent interpretation of songs from classical and modern composers. To make arrangements for this work, consult the director of the department.

13. Individual Piano Lessons—Required of Majors in Music.

Piano work is arranged to suit the needs and ability of the individual. From beginning work to artistic solo performance. To arrange work, consult the director.

14. Individual Violin Lessons.

The work will be outlined according to the ability of the student. To arrange work, consult the director.

15. Individual Organ Lessons.

Organ work is arranged to meet the needs of the individual student. Some knowledge of Piano is a prerequisite. To arrange work consult the director.

105. Supervisor's Course—Four hours.

The material used in the grades and high school is taken up and studied from a supervisor's standpoint. Actual practice in conducting works of a standard nature will be offered those interested in this course.

119. Interpretation and Study of Standard Operas—Two hours.

Operas of the classical and modern schools are studied, through the use of the talking machine, and their structure and music made familiar to the class.

PRACTICAL AND INDUSTRIAL ARTS

The Practical Arts Division includes industrial arts, fine and applied arts, and commercial arts. The courses are varied and are organized especially along lines dealing with the technical phases of practical arts education, opportunity being given for study along historical, practical and theoretical lines. An excellent training department, housed in the Training School Building, gives full opportunity to put into practice in a teaching way the ideas presented in the various courses. This gives an opportunity for the individual students not only to become acquainted with the underlying principles in the work, but also the added advantage of teaching these branches in the Training School under expert supervision.

Woodworking, Drafting, Printing and Bookbinding

The Woodworking, Drafting, Printing and Bookbinding Departments of the State Teachers College are the most modern departments to be found in the Middle West. The departments occupy the first and second floors of the Guggenheim Hall of Industrial Arts. The rooms are large, well ventilated and well lighted. The students in these departments are never crowded for room or hindered in their work from lack of equipment. All equipment is of the latest and best type and is always kept in first-class working condition. It is the aim of the departments to employ methods in woodworking, drafting, printing and bookbinding as thorough and practical as are to be found in the regular commercial shops.

5. Vocational Education—Required of all Majors in Industrial Arts, Commercial Arts, and Fine and Applied Arts. Four hours.

The course deals with the historical development and the fundamentals of teaching practical arts subjects in their relations to other subjects of the school curriculum and their application in future activities that the child will enter.

1. Elementary Woodwork—Required of Industrial Arts Majors. Four hours. Fee \$1.00.

This course is arranged for those who have had no experience in wood-working and is designed to give the student a starting knowledge of the different woodworking tools, their care and use. The construction of simple pieces of furniture is made the basis of this course.

2. Intermediate Woodwork—Required of Industrial Arts Majors. Four hours. Fee \$1.00.

This course is a continuation of Course 1 and is designed for those who wish to continue the work, and deals with more advanced phases of wood-working.

8. Elementary Art Metal—Required of Industrial Arts Majors. Four hours. Fee 50 cents. Every quarter.

(a) This course has in mind the designing and creation of simple, artistic forms in copper, brass and German silver.

(b) Also simple, artistic jewelry, including monograms and the setting of semi-precious stones.

19. Wood Turning—Required of all Industrial Arts Majors. Four hours. Fee \$1.00.

The aim of this course is to give the student a fair knowledge of the woodworking lathe, its care, use and possibilities. Different types of problems will be worked out, such as cylindrical work, working to scale, turning duplicate parts, turning and assembling, the making of handles and attaching them to the proper tools. Special attention will be given to the making of drawings such as are used in ordinary wood turning.

105. Advanced Architectural Drawing—Four hours. Spring quarter.

This course is designed to give the student a simple working knowledge of the great historic material such as columns, capitals, pediments, etc., in their application to modern buildings, such as churches, schools, and other public buildings.

Each student will be expected to design a public or semi-public building as a part of this course.

118. Advanced Machine Design—Four hours.

A study is made of the transmission of motion by belts, pulleys, gears and cams. Sketches, details and assembled drawings are made of valves, vises, lathes, band saws, motors and gas or steam engines.

104. Pre-vocational Education—Two hours.

The course is divided into two definite sections: First, the fundamental basis for pre-vocational work, the movement from the standpoint of special governmental and state schools, rural schools, state movements and vocational clubs, with suggestions for furthering the movement from state and community standpoints; second, the course of study and special plans for organization of pre-vocational work in public education.

109. Advanced Art Metal—Four hours.

The base for this course is the designing, making and finishing of artistic jewelry in semi-precious and precious metals, including all the steps that are fundamental in stone setting and finishing.

201. Seminar—Four hours. On demand.

Individual research work in the field of practical arts. Problems to be selected upon consultation.

This is a conference course. Conference hours will be arranged to meet the demands of students in the course.

Note. Other courses listed in the regular Year Book not listed in the Summer Catalog may be taken by special arrangement with departments in which courses are offered.

Printing

1a. Elementary Printing—Four hours.

The aim of this course is to acquaint the student with the various tools and materials of a print shop and to teach him the fundamentals of plain type-composition. He will carry simple jobs through the various stages from composition to making ready and printing on the press.

2a. Intermediate Printing—Four hours.

A continuation of elementary printing with a view to making the student more proficient in the fundamentals of the art. The principles of typographic designs will be studied in the designing and composing of letter-heads, tickets, programs, etc. Color study in selection of papers and inks.

3a. Advanced Printing—Four hours.

A continuation of the study of typographic design in the laying out and composition of menus, title and cover-pages, advertisements, etc. Imposition of four- and eight-page forms, advanced press work and a study of plate and paper making will be given.

4. Practical Newspaper Work—Four hours.

The various processes incident to the printing of a newspaper will be performed by the student in this course.

5. Shop Management—Four hours. On demand.

Organization of the various forces of the shop to maintain production with efficiency. Planning for the mechanical processes of printed product. Planning and selection of equipment. Maintenance of equipment.

6. Shop Accounting—Four hours. On demand.

Keeping of shop records and accounts. Purchase of printing materials.

Leather Craft Art and Bookbinding

1a. Elementary Bookbinding—Four hours.

This course includes the following: Tools, machines, materials and their uses, collating and preparing their sheets for sewing, sewing on tape and cord, preparing of end sheets, trimming, gluing, rounding and backing, head-binding, banding and preparing backs for covers, selecting cover materials, planning and making of covers and all steps necessary for the binding of full cloth, buckram, and paper bindings, having spring or loose backs; also the binding of one-quarter loose and tight back leather bindings with plain and fancy edges. The making of small boxes, writing pads, memoranda books, leather cases, cloth portfolios and kodak albums.

1b. Elementary Bookbinding—Four hours.

A continuation of Bookbinding 1a.

1c. Elementary Bookbinding—Four hours.

A continuation of Bookbinding 1b.

2a. Intermediate Bookbinding—Four hours.

This course includes the binding of books in half leather, half morocco, cowhide, calf, sheep, and fancy leathers; also the planning and making of full leather travelers' writing cases, music cases, and art leather work.

2b. Intermediate Bookbinding—Four hours.

A continuation of Bookbinding 2a.

2c. Intermediate Bookbinding—Four hours.

A continuation of Bookbinding 2b.

3a. Advanced Leather Craft Art Work—Four hours.

This course is a review of both of the other courses in higher grade work and construction. Full leather bindings with raised panels is given in this course. Gilt edging, fancy edges including starch and agate edges.

Finishing in antique and gold, hand lettering in all its phases, tooling in gold and antique, stamping on stamping machines, of cloth, leather, and other materials in blind, gold and other metals and foils.

3b. Advanced Leather Craft Art Work—Four hours.

A continuation of Bookbinding 3a.

3c. Advanced Leather Craft Art Work—Four hours.

A continuation of Bookbinding 3b.

4. Shop Management—Four hours.

The organization of the various forces of the shop to maintain production and efficiency in the work. Planning of the mechanical work of binding. Laying out and selection of materials and methods of equipment. Floor space planning and arrangement for public schools and colleges.

5. Shop Accounting—Four hours.

Keeping of shop records and accounts. Purchasing and selection of materials such as tapes, papers, buckram, leathers, etc.

6. Cost Accounting—Four hours.

Advanced work growing out of shop management, shop accounting and equipment, dealing with the factors that enter into the estimating of production costs, such as materials and general shop expenses, etc.

Note. All advanced courses by special arrangement.

PHYSICS

It is the purpose of this department to make the work in physics as valuable as possible to ALL students who are to teach in the public schools. The importance of knowing the fundamental principles of physics, and the application of these principles to those things which make for our comfort and well-being is becoming more manifest and urgent every year; but the importance of knowing the fundamental principles of physics when one is going to teach geography, physiology, agriculture, and the like is seldom appreciated by the public school teacher. Every course here offered has been carefully planned so that it may be of the greatest helpfulness in illuminating and vitalizing public school work, especially the work of the elementary school. Much pains has been taken to work out interesting methods, whereby essential but difficult subjects may be presented to young people in the light of their many common and relevant experiences so as to make the difficult subjects understandable.

4c. General Science for Intermediate and Junior High Grades—Four days. Two hours. Either half quarter.

An elementary course planned to give teachers of the elementary schools and superintendents a better understanding of the fundamental principles of many of the common school subjects, such as geography, physiology, hygiene, agriculture, etc. The course seeks to explain many of the ordinary happenings of every day life. Fully illustrated with simple apparatus easily obtained in any community.

6. Theory and Practice of the Automobile—Four days. Two hours. Either half quarter.

Lack of knowledge as to the proper care, construction and operation of a car is responsible for much of the trouble, expense and short life of a car.

The purpose of the course is at least two-fold. (1) To give such instruction in the theory of the construction and operation of a car that the repair expenses may be materially reduced, the life of the car much lengthened and the driving more of a pleasure.

(2) That teachers taking the course may be well enough informed in the subject to disseminate a correct knowledge of the automobile, thereby increasing a scientific education in the community.

Connected with the department is a large garage and repair shop which is well equipped with tools, parts of cars and a demonstrating car.

104. The New Physics—Four days. Two hours. Either half quarter.

This course is devoted to the study of electrons, cathode rays, X-rays, alpha rays, beta rays, gamma rays, and radium and its disintegration products. We are well equipped to illustrate this course.

3. General Physics—Four hours. Full quarter.

A course in magnetism and electricity. Text-book: Kimball's College Physics.

201. Visual Instruction—Two days. One Hour. Either half quarter.

The course is designed for superintendents, principals and others who have or contemplate having visual instruction, by means of moving pictures, in their schools.

The function of the course is two-fold: (1) Of giving information where and how to secure educational films. (2) How to take care of and operate a moving picture machine. The school owns a moving picture machine which is available for actual practice work.

SOCIAL SCIENCE

This department offers a series of courses which it desires shall appeal to both the needs and ambitions of many students. The courses are liberal and varied in scope. Many of them will meet the immediate practical needs of teachers. Some of them are technical, and are intended for teachers and students of special subjects. Still others are advanced courses in social theory, or are practical studies in applied sociology.

Social Science deals with the knowledge on which true theory in Education must be based. It is equally essential in the training of high school and elementary teachers.

The major four-year course offered by this department is a superior opportunity for high school teachers, superintendents, principals, supervisors, and all students desiring liberal training in Modern Social thought and its inevitable effects on Education and human progress.

3. Educational Sociology—Four hours. Full quarter. Required in first year. Dr. Miller and Dr. Hayes.

A course giving (1) a background of information concerning origins and interrelations of present social problems; (2) a brief formulation of the methods of social progress; and making (3) a definite attempt to show the relation of education to the problems of control and progress.

105. Social Institutions and Social Maladjustments—Four hours. Full quarter. Required in third year. Dr. Miller and Dr. Hayes.

The relation of Sociology to Psychology; the evolution of mind as a Social progress, the Social emotional basis of mind and its development as a directive agent. Social institutions, their relation to social maladjustment, and social progress.

161. Modern Social Changes—Four hours. Full quarter.

Dr. Miller.

A study of modern social problems, and of present day reconstruction policies in America, with special emphasis on the Ethics of the Labor Problem.

132. The Family—Three hours. First half quarter.

Dr. Miller.

A very profitable study of the family from the standpoint of education, industry, ethics, and as a social unit. Desirable for teachers, but of great value to all students of either theoretical or practical Sociology.

Colorado State Teachers College

Greeley, Colorado

SUMMER QUARTER 1921

The Calendar

June 20, Monday—Registration Day for the Summer Quarter.

June 21, Tuesday—Classes begin.

A fee of two dollars is collected for late registration after Monday, June 20.

July 22, Friday—The first half of the Summer Quarter closes.

Students, if possible, should enroll June 20 for the Full Quarter, but they have the privilege of enrolling for either Half Quarter independent of the other. Many courses run through the first Half Quarter only. Some run through the Second Half Quarter only. Most of the courses, especially the required courses, must be taken throughout the whole quarter before any credit will be given.

Normal hours of credit: Either Half Quarter, 8 hours; Full Quarter, 16 hours.

July 25, Monday—New enrollment for the Second Half Quarter. Classes begin.

August 26, Friday—The Summer Quarter closes. Graduation Day.

FALL QUARTER

The Fall Quarter begins Monday, October 3, 1921. Ask for the Annual Catalogue. Address State Teachers College, Greeley, Colorado, J. G. Crabbe, President.

