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More than a quarter of a century ago

Utah State Agricultural College began the policy of bringing eminent national leaders in higher education to Logan to serve on the faculty of the Summer School. Gradually they were followed by students from throughout the nation who came here to enroll in classes with the College's own distinguished staff and with these visiting professors. Together with students from Utah and the intermountain area they found the study opportunities to be outstanding here. Moreover, weekend trips into the surrounding recreation areas such as the one pictured above left memories never to be forgotten. This year the policy of enriching the summer school is being re-emphasized to expand opportunities for recreation and education at Utah State.
SUMMER SCHOOL
ANNOUNCEMENT FOR 1951

JUNE 11 — August 17

FIRST SESSION
June 11 — July 20

SECOND SESSION
July 23 — August 17

Please Bring This Bulletin With You
When You Come to Register
A Message
from the President of the College

This year attendance at Summer School will take on new importance to many people in our society. The international situation makes it imperative that every individual be prepared to do efficiently whatever he is called upon to do in the civilian or military defense of our country. Since the time of preparation may once more be all too short, colleges all over America are intensifying their summer programs to provide four full quarters a year.

We at Utah State Agricultural College are fully in accord with this movement. As a result the Summer School has been planned to provide a rich offering of courses including the basic course in the ROTC Air Force unit to take care of entering freshmen who will want to begin their college education without delay. In addition, practically every department is offering graduate and undergraduate courses for students who have already begun their college careers and who want to go on the four-quarter plan. The second session has definitely been planned to start at a time, July 23, when veterans may still enroll under provisions of the G. I. legislation.

Of special importance, the College has been asked to expand its services in the area of international education. Several distinguished leaders from Federal departments in Washington and from other Universities are joining the faculty to help along this line. Special lectures, conferences, and short courses have been planned to study and implement the “Point-Four” program, which provides for technical cooperation with foreign countries.

The staff of visiting lecturers and faculty members who will come to the campus this summer is the greatest in many years. They have been chosen to join with our own strong faculty in helping us here at Utah State Agricultural College prepare for the work that lies ahead.

We sincerely hope that students, teachers and citizens generally will take advantage of the opportunity to participate with us in this summer school of national significance.

[Signature]
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Utah State Agricultural College

Utah State Agricultural College was established in 1888 under the provisions of the Land-Grant College Act. It serves the people of Utah and the intermountain west through three main divisions: (1) the instructional service of the college, (2) the Agricultural Experiment Station, and (3) the Cooperative Extension Service. The instructional services are organized in seven schools: Agriculture; Arts and Sciences; Commerce; Education; Engineering and Technology; Forest, Range, and Wildlife Management; and Home Economics. The Graduate School and the Summer School are also organized to render special services. Through all these schools, it is the policy of the college to make available to students opportunities for a broad program of collegiate education, including vocational, technical, scientific and so-called liberal education. The object is to foster all that makes for right living, good citizenship, vocational efficiency, and general culture. Fundamentally, the college has always considered the main function of education in its broadest sense to be the preservation and improvement of the democratic way of life.

All departments offer curricula leading to the B.S. degree; many offer the M.S.; and some the Ph.D. Detailed requirements for these requirements are listed in the general catalog.

The college is located one mile east of the center of Logan on the brow of a hill overlooking Cache Valley. One mile still further to the east is the entrance to scenic Logan Canyon through which Highway 89 leads on to Bear Lake and points east or north through Wyoming to the south entrance of Yellowstone Park.

With its population of sixteen thousand, Logan serves as a delightful center of student life. The climate in the summer time seldom becomes oppressively warm, while the evening canyon breeze makes summer nights especially comfortable. Student enrollment at the college during the regular academic year has in recent years exceeded five thousand. Enrollment in the Summer School ranges from fifteen hundred to two thousand.

The Summer School

Summer quarters have achieved a significant place in American collegiate institutions, partly because they are organized to meet the needs of many different groups of people. There are always some students who carry on with their regular scholarship program, there are the elementary and secondary teachers meeting certification requirements or proceeding toward advanced degrees as they continue their regular teaching course, and finally there are many special groups who use up a week or two weeks or longer for short courses specifically adapted to their professions or avocations.

The Utah State Agricultural College Summer School is organized to meet these diverse needs. For many years it has been a significant part of the institution. Since 1924 the program has been expanded to include visiting professors from different parts of the nation who supplement the regular faculty in various departments in giving advanced courses, conducting institutes, or giving one or more special lectures. Lyceum numbers in music and drama are also included in the summer program.

A full quarter of study is available this summer, divided into two sessions, the first of six weeks from June 11 to July 20, and the second
from July 23 to August 17. Some courses in the first session are arranged to terminate in three weeks, thus making it possible for individuals to complete an intensive program for college credit if they cannot be on the campus for a longer period.

In general the 1951 summer offering has been planned to meet the needs of the groups indicated above. First, many regular students of undergraduate standing will wish to use the summer quarter to complete requirements earlier than otherwise possible. Similarly, many high school graduates may want to enroll in college this summer in order to get their advanced schooling started without delay. Most departments are offering freshman courses to meet these needs, as well as more advanced courses meeting graduation requirements. Second, teachers planning to renew certificates or meet certification requirements for Utah and surrounding states will find that specific courses have been listed to meet their needs. Course needs for other special groups have also been kept in mind, and suitable offerings made available. A third group which the Summer School seeks to serve directly is the large number of graduate students who find it advantageous to pursue their school work in the summer time. A detailed description of the policies of the graduate school is included later in this bulletin.

**REGISTRATION**

The student load during the Summer Quarter is determined by the deans of the various schools. A maximum of nine credits may be taken the first session, and six the second. Students are reminded that this number cannot be exceeded without the special approval of the dean of the school concerned. Nor will completion of correspondence study or extension class work paralleling Summer School be permitted if the combined total of credits exceeds the above figures unless special approval has been granted.

Students who desire to register for credit in research problems or field studies must make the necessary arrangements with the Registrar’s Office at the beginning of the session in which the work is done. Credits allowed and fees charged for this type of study will depend on the time spent and the work accomplished.

Registration for the Summer Quarter will take place Monday, June 11, in the Main Reading Room of the Library, beginning at 8 a.m. and continuing to 3 p.m. Classes will begin Tuesday morning, June 12. Students who fail to complete registration on Monday may do so any succeeding afternoon from 1 to 4 p.m. in the Summer School office (M276). The first step in registration is to call at the Registrar’s Office to obtain registration forms and instructions. Students will find it to their advantage to send in the registration request form on the last page of this bulletin before registration day. Although this is not necessary it will insure that all previous records as well as registration forms will be ready for them on June 11.

There will be no special registration period for the second session. New students or students making changes or additions can complete the registration process any time during the first week of the second session. Regularly scheduled second session classes will begin Monday, July 23, and continue for four weeks, to August 17. The same rules as apply in the first session limit the amount of credit a student may take. Any regular college course which is not definitely scheduled for the second session in the catalog or the schedule bulletin will be given in that period if ten students petition the Summer Quarter Dean and join the class. Credit in the second session is computed on the basis
SUMMER SESSION

of one hour of credit for 10 one-hour lecture periods or 10 three-hour laboratory periods. Registration forms will not be accepted after the close of any session period in which the classes are given.

Scheduled classes, whether first or second session, may not be given if fewer than eight students register. If it is possible to do so, any course listed in the general catalogue will be given if eight or more students request it. Requests should be directed to the head of the department concerned.

All graduate students must register with the Dean of the Graduate School, Dr. J. Stewart Williams, who will be in the Main Reading Room of the library on Monday, June 11; thereafter, at his office in the Main building.

CLASS SCHEDULE

It is anticipated that all classes will meet at the time and place listed in this catalog. If changes are necessary, a corrected schedule will be available on registration day, June 11. Some classes will begin at 7 a.m. throughout the Summer Quarter. Four periods are scheduled during the morning hours: 7, 8, 9, and 10. Bells ring on the hour and classes begin immediately and continue for fifty minutes to 7:50, 8:50, 9:50, etc. The 11 a.m. hour is kept open as a lecture period during the first session and no classes are scheduled at that hour. Afternoon classes begin at 1 p.m. and continue on the hour until 5 p.m. During the second session meeting hours of classes not listed in the schedule bulletin may be arranged by agreement with students and teachers.

Summer School Fees for 1951

<table>
<thead>
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<th>Service</th>
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<tr>
<td>Registration for Summer Quarter</td>
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<tr>
<td>Tuition for Summer Quarter</td>
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</tr>
<tr>
<td>Materials and Laboratory Fee Summer Quarter</td>
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<td>Student Body Activity Fee</td>
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<td>Registration for three credits or less</td>
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<td>Registration for five credits or less</td>
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<tr>
<td>Coaching School fee</td>
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</tr>
<tr>
<td>(Students who pay the regular $35 or $20 may attend the Coaching School without additional charge.)</td>
<td></td>
</tr>
<tr>
<td>Drivers Training Institute</td>
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</tr>
<tr>
<td>Auditor's fee (per course)</td>
<td>3.00</td>
</tr>
<tr>
<td>(Does not apply to regularly registered students who may secure visitor's permits from Registrar's Office.)</td>
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PRIVATE INSTRUCTORS IN MUSIC FOR SUMMER SESSIONS

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<th>Name</th>
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<th>Fee 1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. W. Christiansen</td>
<td>21.00</td>
<td>17.50</td>
</tr>
<tr>
<td>Mrs. N. W. Christiansen</td>
<td>18.00</td>
<td>15.00</td>
</tr>
<tr>
<td>S. E. Clark</td>
<td>18.00</td>
<td>15.00</td>
</tr>
<tr>
<td>Mrs. Maxine Greenwood</td>
<td>15.00</td>
<td>12.50</td>
</tr>
</tbody>
</table>
PRIVATE INSTRUCTORS IN SPEECH

Harold Hansen ........................................ $17.50 per credit hour either session
Stuart Hardman .......................................... 17.50 per credit hour either session
LeRoi Jones ........................................... 17.50 per credit hour either session
Chester J. Myers ......................................... 17.50 per credit hour either session
Rex E. Robinson ........................................ 17.50 per credit hour either session
Gwendella Thornley ..................................... 17.50 per credit hour either session

Each session consists of 10 lessons per credit hour.

P.E. 176—Camping Trip Packing and Equipment Rental .......................... 16.00
Transportation ........................................ 7.00

Aeronautics—37, 137, 138, 139—$10.00 per clock hour for dual instruction and $8.00 per clock hour for solo instruction.
Registration and Tuition .................................. 35.00
Laboratory fee ........................................ 25.00
(Board provided on cost basis)

Music Clinic (non-credit) ................................ 5.00
Physical Education 73 (golf) fee ........................ 3.00
Diploma Fee ........................................... 5.00
Social Work Certificate .................................. 5.00
Master's Degree Fee for binding and proofing Thesis .......................... 5.00
Special Examination—per credit hour ..................... 2.00

SPECIAL CONFERENCES, INSTITUTES, SHORT COURSES, AND WORKSHOPS

June 5-9 Coaching School

The twenty-fifth annual Coaching School at Utah State promises to be one of the best ever held. Bowden Wyatt of Wyoming University will instruct in football and John Wooden of the University of California at Los Angeles will instruct in basketball. Both men are eminent in their respective fields. After winning the Skyline Conference in 1950, Wyatt's team went on to a decisive win at the Aligator Bowl, finishing the season as one of the few undefeated teams in the nation. Similarly, U.C.L.A. has been strong in basketball under Coach Wooden, winning the Pacific Coast Conference in 1949 and 1950.

If possible, reservations for enrollment in the Coaching School should be sent in before the opening date, June 5. Registration in the School carries 1 credit for the week. Free playing privileges at the Logan Golf and Country Club are extended to those who are enrolled.
SUMMER SESSION

June 11-29  Art Education Workshop

Through the cooperation of the State Department of Public Instruction, an art education workshop for teachers is being held on the campus through the first three weeks of the summer session, June 11 to June 29. Four members of the State Curriculum Committee on Art are listed as special instructors for this course, although other members of the committee will cooperate. The workshop is planned for the regular classroom teacher. It is anticipated that theory and background material will be discussed but the major emphasis will be upon learning how to do the thing called for in providing good art experiences for the child. Five credits may be earned by participating in the workshop and it is anticipated that this will take the full time of the teachers for the first three weeks.

June 11-August 17  International Understanding

A series of courses, conferences, and special lectures dealing with the international scene has been planned in sequence to run through both sessions of the Summer School. Chief events in this series are:

June 11-29  Dr. George Woodbridge, United States Department of Agriculture, will teach two courses. One, Political Science 160, The Middle East, will deal with political, economic and social problems of the Middle East. The other, Political Science 161, American Middle East Relationships, will deal with implementing the "Point Four Program" with respect to that area.

July 2-20  Dr. Clayton Whipple, Chief, Food and Natural Resources Division, Department of State, will also teach two courses. One, Political Science 165, The Balkans, deals with political, economic and social problems of the Balkans. The other, Political Science 166, American Relationships, will deal with the "Point Four Program" as it applies to this area.

July 9-13  Mr. Louis Fischer, lecturer, international correspondent, and author, will give a series of five lectures and conduct informal seminars dealing with America and Asia.

July 23-August 17  Dr. Paul L. Dengler, native of Austria, educated in Europe, but more recently Professor of Education at the University of Kansas City, will teach two courses: Education 203, Comparative Education, with particular emphasis upon Europe now, and Education 194, International Folklore in Education.

June 11-July 20  Closely related to the above sequence, Dr. Glenn L. Taggart, Assistant Chief, Technical Collaboration Branch, Department of Agriculture, will teach two courses in Rural Sociology: Sociology 148, Rural Sociology of Latin America, and Sociology 240, Sociological Principles of the "Point Four Program."

June 11-20  Utah State Theatre Workshop

Utah State's Theatre Workshop is now in its third year. Plays that have been produced in past summers are: "The Miser," Moliere; "Antigone," Anouilh; "The Importance of Being Earnest," Wilde; and "Thunder Rock," Ardrey.
The actors and production crews are members of the class in Practical Theatre, Speech and Drama 66 and 166, and other interested students. Anyone connected with the College is invited and encouraged to participate. The plays are presented before college and local audiences in a well-equipped plant. An attempt is made to produce drama as near the professional level as possible.

An added attraction this summer will be the appearance of Rhoda Jordan, talented actress, who will appear with the student actors in production. She will also be available for consultation and discussion of theatre problems.

Plans for this summer include three different productions, indicating a well-balanced program. Two productions will be staged in the Main Auditorium, "The Wingless Victory," Maxwell Anderson, and "The Barretts of Wimpole Street," Rudolph Besier. An arena type production of a modern comedy, "Blithe Spirit," Noel Coward, will also be staged. In the arena production the actors are staged in the center of the auditorium with the audience seated in a circle about the playing area.

High school students as well as college students are invited to participate. Those who do may elect whether they will receive college credit or not. This summer offering will be valuable to the teacher, the drama director in community or church organizations, the recreational director, as well as Speech and Drama majors and minors.

June 12-15 Rural School Administrators Conference

Planned especially for superintendents and principals of junior and senior high schools, this conference will be concerned with specific problems facing the administrators of today's rural schools. Chairman of the conference will be Mr. N. J. Barlow, now Director of Education for the New Mexico state school system, and formerly assistant state superintendent of schools in Utah.

June 13-14 Exploring Current Literature

Because of the wide interest in current literature expressing itself in literary clubs and similar organizations, the Department of English and the Library staff at the College are sponsoring a two-day institute at which overviews of the new books will be presented. Some may be reviewed more comprehensively. The aim of the institute will be to explore the fields of current literature, and to analyze novels, biographies, dramas and books of general interest suitable for club programs. School or other librarians, club chairmen in charge of book programs, and others interested are invited to participate.

Special consultants to this institute will be Mrs. Charles W. Boardman, and Dr. Henry Neumann, Leader, Brooklyn Society for Ethical Culture, New York.

June 18-20 Health Education Conference

One of America's most competent and dynamic health educators, Oliver E. Byrd, Ed.D., M.D., Director Department of Hygiene, of Stanford University, will lead a three-day Health Education Conference on the campus, June 18, 19, and 20. He will be assisted by Arthur G. Miller, Ed.D., Assistant Professor of Physical Education, Boston University; Vaughn Hall, Ed.D., Supervisor of Health Education, Utah Department of Public Instruction; William R. Manning, M.P.H., Director of Health Education, Utah State Department of Health, and the College Staff in Public
Health, Physical Education, Sociology and related fields. Conferences are planned to emphasize the role of the school, the community, and the home in education for good health.

No charge will be made for the conference; and teachers of health, hygiene, and physiology, as well as others interested in health education, are especially urged to attend these sessions.

**June 18-22 School Lunch Program**

The sixth annual school lunchroom course will be conducted for the supervisors and managers of the school lunch rooms throughout the state. Classes will be arranged for each specific group of workers and in accordance with length of service rendered. Special attention will be given to individual problems in organization or management. Daily class schedules and group meetings to be announced.

**June 24-July 1 Girls' State**

This annual conference is under the direction of the state organization of the American Legion Auxiliary. It will be held on the campus during the week of June 24. Faculty members will cooperate by giving lectures and conducting course work.

**June 25-27 Family Life Institute**

The annual Family Life Institute is scheduled for Monday, Tuesday, and Wednesday, June 25, 26, and 27. Professor John G. Milner, of the University of Southern California, and former assistant director of the Ryther Child Care Institute at Seattle, will be the leader. Discussion groups will feature the application of the theme and program of the Mid-Century White House Conference on Children and Youth in the Utah setting. No charge is made for the Institute, and both students and people of surrounding communities are invited to participate.

**July 2-20 Curriculum Workshop in Physical Education in the Elementary School**

The Workshop in Elementary School Physical Education is scheduled for the three week period, July 2 to 20. Conducted in cooperation with the Utah State Department of Public Instruction, the members of the workshop group will study the best thinking in the subject and attempt to outline a curriculum in Physical Education which will be usable in Utah elementary schools.

Miss Helen Manley, supervisor of elementary school health and physical education in University City, Missouri, schools and formerly with the United States Office of Education as specialist in the same area, will be the consultant of the workshop. Personnel of the Utah State Department of Public Instruction and the Utah State Agricultural College, Department of Physical Education and Recreation, will also participate in leadership.

Sessions will be held in the Rural Arts Building on the Campus. Participants may be housed in the dormitories of the same building. Three hours of college credit will be given for the completion of the workshop (P.E. 144 or P.E. 244). It is suggested that students participating in the workshop register in a nine-credit load chosen from the following courses:
June 11-29
P.E. 112 Physical Education Curriculum in Elementary Schools. 3 credits, daily 1-4.

July 2-20
P.E. 81 Rhythms and Dramatic Games. 3 credits, daily 8.
P.E. 177-277 Problems in Elementary School Physical Education. 3 credits, daily 9-11.

June 11-July 20
P.E. 81 Rhythms and Dramatic Games. 3 credits, daily 8.
P.E. 74-174 Life Saving and Water Safety. 3 credits, daily 12.
P.E. 111 Creative Rhythms for Schools. 3 credits, daily 12.
P.E. 156 Curriculum in Health Education. 3 credits, daily 10.

The Utah State Department of Public Instruction will cooperate in an intensive conference for workers in these two fields.

July 8-20 Music Clinic

The Summer Music Camp is one of the oldest in the West. It was discontinued during World War II and revived in 1948. Band, chorus, and orchestra are included. The camp will run from July 8 to July 20. It is expected to appeal to all music directors of this area and to high school and junior high students who wish to sing or play under the direction of eminent men.

Dr. Frank Simon, internationally known soloist and conductor, will direct the band; Eldon A. Ardrey will direct the chorus. Dr. N. W. Christiansen will have charge of the orchestra.

Students will be housed under supervision in the Rural Arts Building. Housing and board will be provided at cost. Students may participate in one or more of the programs. Numerous activities are planned for the students, permitting them to enjoy a vacation and at the same time improve their musical performance. Registration fee covering admission to the entire course is $5. Since registration in the Clinic is limited, interested students and teachers should send in notification early concerning their intentions to enroll.

July 9-11 School Maintenance Institute

Through the cooperation of the Utah State Department of Public Instruction, a three-day institute will be held in which topics dealing with all aspects of school maintenance will be treated. Emphasis will be placed upon the theme, “the school maintenance worker as a non-teaching educator.” School administrators, superintendents of buildings and grounds, school custodians and other school maintenance workers are invited to attend.

July 12-14 Institute for School Bus Drivers

The Utah State Department of Education is also cooperating in the conducting of this institute in which the operation and maintenance of school buses will be considered. The responsibility of the bus operator as an integral part of the educational system will be considered
SUMMER SESSION

July 25-August 4  Aggie Ranger Hike

The annual Summer School hiking and camping trip will take place during the two weeks immediately following the first session of Summer School, July 25 to August 4. Course work in camp preparation, packing, and other details will be held during the first few days of the week of July 25, following which the expedition will be led into the Wind River Mountains of Wyoming for a ten-day period.

August 27-30  American Institute of Cooperation

The American Institute of Cooperation will hold its annual meetings on the campus of Utah State Agricultural College on August 27-30, 1951. Each year the Institute holds its conference on the campus of a college or university. The program of the Institute is education on agricultural cooperation and improvement of American agriculture. The 2,000 delegates attending will come from every state in the Union and from foreign countries.

GRADUATE SCHOOL

J. Stewart Williams, Dean

Organization

Graduate study is supervised by the Dean of the Graduate School assisted by the Graduate Council. This council consists of one representative from each of the seven schools of the college, the Division of Social Work, and the Libraries. Members of the council are appointed by the President in December of each year to serve a one-year term commencing the first of July following.

Admission to Graduate School

A graduate with a Bachelor’s degree from Utah State Agricultural College or from any other accredited college or university may be admitted to the Graduate School. Seniors in the college who have an average of “B” or better in all their courses in the junior and senior years, and who at the beginning of any quarter lack not more than five quarter credits to complete all requirements for the Bachelor’s degree, may be allowed to register in the Graduate School.

An application for admission, accompanied by transcripts of all previously earned credits and letters of recommendation, should be presented as far in advance of the day of registration as possible. All applications must receive the approval of the department in which the student proposes to work.

Students who cannot qualify for the degree program in a particular field may be admitted to the Graduate School as non-candidate students. Admission to the Graduate School does not imply admission to candidacy for a higher degree.

Students are admitted to graduate studies in social work who have taken a Bachelor’s degree with (1) a major in social work; (2) a major in sociology, economics, political science or psychology, and have a total of not less than 36 credits in these four departments; or (3) a major in child development, physical education, public health or education, and who also have 25 credits in one of the four social sciences above listed with a fair balance among them. Students over 35 years of age are admitted only by special arrangement.
Degree of Master of Science

Majors for the Master of Science degree are offered in all the basic biological, physical, and social sciences and in the various educational, industrial, and professional divisions of the college. The specific departments in which the Master of Science degree is given, together with the course service provided by the departments, may be determined by consulting the departmental statements provided in the catalogue under the various undergraduate schools of the college.

Qualifying Examinations. Any qualifying examinations required by the student's department must be taken as soon as possible after registration. The results of these examinations become a part of the student's file in the graduate office. The Graduate Record Examination is not required of all students, but all prospective graduate students are urged to take it. If a student is found to be deficient in the work basic to the field in which he proposes to study, he may be required to take undergraduate courses to satisfy the deficiency, and these credits may not count in the minimum requirements for the Master's degree.

Supervisory Committee. When it has been determined that a student is acceptable as a possible candidate for a higher degree, the major professor will suggest a committee to assist him in guiding the student's program and in conducting any necessary additional qualifying examinations and the final examination. When the student's program has been determined and approved by his committee, he will be advanced to candidacy for a degree. Advancement to candidacy must be accomplished before the end of the winter quarter if the student is to graduate at the following commencement. In cases where the student's research is best supervised by a federal collaborator, or other person who is not a member of the regular teaching staff, such collaborator or other person may be designated as thesis director. The thesis director will be a member of the student's committee.

Student Program. The student program for the Master of Science degree must include:

1. At least three quarters of residence;
2. At least 45 credits in courses numbered 100 or above which are approved for graduate credit;
3. At least 10 credits, exclusive of thesis, in courses numbered 200 or above;
4. A thesis with 9 to 15 credits.

Thesis. Each candidate for a Master of Science degree must present a thesis on a topic within the field of his major subject which must represent from 9 to 15 hours of the credit presented for his degree. In all cases, the thesis must represent a contribution to the field of knowledge, based on the student's own research, or a treatment and presentation of known subject matter from a new point of view. After final approval by the department, the thesis must be typewritten in standard form; and a copy must be submitted to each member of the student's Advisory and Examining Committee at least two weeks before the date of his final examination. After approval by the committee and the department, and after the student has successfully passed the final examination, three copies of the final draft of the thesis must be deposited in the graduate office. One copy will be deposited in the library, another sent to the department, and the third returned to the student.
Thesis Alternate: "B Plan" reports. The supervisory committee may permit the substitution of three advanced seminar reports, valued at 6 to 10 credits, for the regular thesis. These are known as "B plan" reports. The Master's program is otherwise the same under the "B plan."

Final Examination. Each candidate for a Master of Science degree will be required to pass a comprehensive final examination on the subjects of his graduate study and on his thesis. This examination may be oral or written or both as his committee may decide, and is open to all faculty members and officials of the Graduate School. Arrangements for the time and place of the examination will be made by the Dean of the Graduate School. A member of the Advisory and Examining Committee, other than the major professor, or a representative of the Graduate Council will be appointed to act as chairman of the examination and will submit to the Graduate Council the results of the examination. For candidates who are to receive their degree at the June commencement, the date of the final examination should not be later than May 1.

Time Limit. Work for a Master of Science degree must be completed within six years from the date of matriculation as a regular student in the Graduate School if the work is done wholly or in part during the regular academic year. If the work is done entirely in summer sessions, a maximum of seven years is allowed. Older work may be revalidated by examination.

Extension Course Credit. The amount of extension credit to be allowed will be determined in consideration of the student's entire course program. In no case will more than nine quarter hours of extension credit be allowed as counting toward a degree. All extension courses for which graduate credit is sought must be regularly registered for through the Graduate School, and must have the sanction of the Head of the Department in which the student is doing his graduate work. Credit toward a Master of Science degree will not be granted for correspondence study.

Transfer Credit. A maximum of 9 quarter credits of graduate work satisfactorily completed at another approved Graduate School may be allowed toward a Master of Science degree. The extent to which such credit may reduce either the course or the residence requirements will be determined by the student's committee.

Credit Load. Maximum load for full-time graduate students is 16 credits. Maximum for assistants engaged half time or more in teaching or research is 12 credits.

Degree of Doctor of Philosophy

General. The degree of Doctor of Philosophy (Ph.D.) is awarded by the Utah State Agricultural College in recognition of high attainment and productive scholarship in a special field of learning.

Admission to the Graduate School to work toward the Doctor of Philosophy degree is obtained in the same manner as for the Master's degree. Qualifying examinations are similarly required, and the student's program is likewise directed by a supervisory committee.

Student Program. The student program for the Doctor of Philosophy degree must include:

1. Three years of full-time graduate study. If the student has a Master's degree, then two years will be required. The student's super-
visory committee may recommend that part of this program be taken at other schools, but the last year must be spent in residence at Utah State Agricultural College.

2. A minimum of 135 credits of approved graduate work beyond the Bachelor's degree, 90 credits beyond the Master's degree.

3. A major field to which approximately two-thirds of the program is devoted, and a minor field to which approximately one-third of the time will be devoted.

4. A research problem on which a thesis will be presented. Credits for this thesis may not exceed 45, and work on the thesis should ordinarily occupy most of the third year.

Language Requirement. A fundamental knowledge of at least one language will be required of all candidates. The particular language required will be that which meets best the applicant's needs. Requirement of a second language will be optional with the department in which the student is taking his major. The degree of proficiency of the applicant to use the required language in his chosen field and his knowledge of the grammar and structure of the language will be determined by a committee appointed by the Dean of the Graduate School from members of the language departments.

The language examination should be taken before the beginning of the third year of study.

Preliminary Examinations and Candidacy. Written and oral examinations will be conducted by the supervisory committee and the departments concerned, generally in the last quarter of the second year of the students' work, to determine his fitness for admission to candidacy for the Doctor of Philosophy degree.

Thesis. A completed thesis approved by the department must be presented to the supervisory committee not later than May 1 of the year in which the student will graduate. The thesis must show ability to do critical and independent research. It must present a contribution to knowledge in a scholarly fashion.

Final Examination. The final examination in defense of the candidate's thesis will be conducted by the supervisory committee not later than two weeks before the date of commencement.

POULTRY CONFERENCE

The eighteenth Annual Training School for the training and qualifying of poultry flock-testing and pullorum disease-testing agents will be held at the College during the month of August. Dates will be announced early in the summer. Those interested should write to the Department of Poultry Husbandry for detailed information.

KINDERGARTEN DEMONSTRATION SCHOOL

A demonstration kindergarten will be in session during the first six weeks. Preference for admission will be given to the children of Summer School members. Approximately fifteen children, five years old, will be accepted. Students enrolled in Education classes will use the demonstration school as a laboratory for observing and working with kindergarten children. Sessions will be held Monday through
SUMMER SESSION

Friday from 8 to 11 a.m. Application for enrollment should be made in writing on or before registration day. Children will be accepted in order of application.

LOGAN CITY RECREATION PROGRAM

Through official cooperation of the Logan City Board of Education and the Logan City administration, recreation programs operate throughout the year. This is expanded during the summer to provide several recreation centers throughout the community where several activities are carried on. In addition, some special courses in music and similar fields are scheduled. Children of Summer School participants may be admitted to any of the recreational activities sponsored by the community. For further information, inquiries should be addressed to: Mr. Glenn Worthington, Superintendent of Recreation, Logan, Utah.

NURSERY SCHOOL

The college Nursery School will operate for the benefit of college students who bring their children and desire a means of caring for them during school hours. Enrollment, limited to 15 children, will be made up of 2, 3, 4 year old children. Those students enrolled in Child Development classes will use the Nursery School as a laboratory for observing and working with preschool children. School sessions: Monday through Friday 8-11 a.m., first summer session only. Application for enrollment should be made in writing on or before registration day. Children will be accepted in order of application.

RECREATION EVENTS

The Summer School offers a rich and varied program of recreation. A special Recreation Committee cooperating with various departments, sponsors many activities both on and off the campus. Events will be announced in the weekly edition of Student Life. The following major activities are announced in advance so that students can plan accordingly:

- June 21—Old Juniper Hike and Party.
- June 23—Trips to Bird Refuge and to Minnetonka Caves near Bear Lake.
- June 25-27—Utah State Theatre workshop production, "The Barretts of Wimpole Street."
- July 6-9—Yellowstone Park Trip. Approximate all-inclusive cost per person, $25.00.
- July 14—Summer School Canyon Breakfast.
- July 16-18—Theatre Workshop production, "Wingless Victory."
- July 20-23—Southern Parks Trip. Approximate all-inclusive cost per person, $25.00.

Through the summer school recreation committee, students can obtain assistance in planning to use many other sources of recreation. Suggested recreational activities include: picnics at one of the many camp areas in Logan Canyon, hikes to Mt. Logan and White Pine Lake, excursions to Minnetonka Cave, Bloomington Lake in the Wasatch
Forest, and other interesting places. Picnic, camping and recreational equipment is available through the college for students at nominal rental fee. For further information address inquiries to Department of Physical Education or Dean of the Summer Session.

SPEECH CLINIC

The Speech Clinic provides special classes to meet the needs of foreign students. Both group and individual instruction at the Speech Clinic can be obtained by foreign students so that they can learn the use of American English as rapidly as possible.

Remedial training is available for those individuals possessing speech handicaps. The types of problems handled include stuttering or stammering, stage orders of articulation, cleft palate and hare lip, paralytic speech, foreign accent and dialectic speech, "nervous" speech conditions, nasal speech, high or thin voices, etc. All college students who have defective speech should register with the Speech Clinic where they will receive immediate attention. This training is also available to non-college students, by special appointment with the Clinic.

SUMMER SCHOOL "STUDENT LIFE"

"Student Life," the weekly newspaper of the College student body, is issued during the summer. It carries, in addition to general campus news, announcements of lyceums, concerts, and other special activities provided by the Summer School. Copies will be distributed weekly in the Main Building.

TEACHERS' CERTIFICATES

By attending the Summer Quarter of Utah State Agricultural College, students may meet any of the requirements for Utah certification with the exception of practice teaching; and, since the College is fully accredited, credit will be allowed for any subject completed in the Summer Quarter that forms part of the certification requirements of any state.

TEACHERS' PLACEMENT BUREAU

A Teachers' Placement Bureau functions in connection with the Summer School. All teachers seeking employment may register in this bureau. Superintendents and others who employ teachers will find it to their advantage to consult the list of applicants which will be furnished upon request. Interviews with applicants will also be arranged. The Bureau is located in the Main Building, Room 276.

VETERANS' ADMINISTRATION

The College maintains a veterans' bureau on the campus where all GI students may receive guidance service and where provisions for the clearance of veterans for registration and so forth is made. In this connection, it should be pointed out that under present provisions all veterans planning to continue their education should have been enrolled on or before July 25. Since the second session of the Summer
School starts July 23, it will be convenient for veterans to register at this time. Further information may be obtained by addressing:

Office of Veterans’ Affairs
Utah State Agricultural College
Logan, Utah

GRADUATION

Requirements for graduation in the various schools and departments of the College are listed in the general catalogue. In most cases students can complete many of these requirements by attendance during summer quarters. In every department, one or more advisors are assigned to guide the student’s work leading toward graduation. Students planning to attend during the summer are invited to write to the departments in which they are interested for evaluation of credits and other such guidance services.

Graduation exercises are held only once during the year—at the end of the spring quarter. Students who complete all requirements during the summer may receive official statements of completion by applying to the dean of the school concerned. Their degrees will be conferred at Commencement the following spring.

LIVING ACCOMMODATIONS

The housing situation is better at Utah State than it has been for many years. Nearly any type of accommodation desired can be obtained through the college housing office or private home owners of Logan City.

Many Logan city residents list their apartments, rooms, or board and room accommodations with the College Housing Office, Room 107, Main Building. Such listings may be had by anyone who wishes to call for them.

The College Housing Office has the following accommodations available for Summer School students:

**Lund Hall**. located on the campus, offers dormitory accommodations for women.

**Kerr Hall**, located in downtown Logan, also can be used for housing women students. Both of these halls have served summer school students satisfactorily for several summers.

**Quonset** apartments and some “pre-fab” apartments are available for couples or families on a monthly basis.

Lund Hall because of its size will also be available for some teachers or married couples who wish to remain on the campus. Some limitation in reservations for this hall is made so those desiring to live there should make reservations as early as possible.

On page 67 in this catalog there is a form for use in making application for housing. A five dollar deposit should be forwarded with the request for a dormitory reservation. A ten dollar deposit is required for a couple or family unit reservation.
Schedule of Rates

Lund Hall—The college will furnish and launder the bedding, but residents will need to bring their own towels and soap.

Adequate laundry facilities are maintained for personal laundry. Daily maid service will provide for the making of beds and tidying of rooms.

Charges: Five dollar reservation fee to be returned when bedding is checked in and room vacated.

$35.00 for single room for first six weeks.
$25.00 for person for double room for six weeks.
$1.00 per day will be charged for periods shorter than six week term.

$25.00 for single room for second four weeks.
$20.00 for person for double room for second four weeks.
$1.00 per day will be charged for periods shorter than five week term.

Kerr Hall—The rates will be the same as Lund Hall.

Note: Kerr Hall will be used only after Lund Hall has been filled.

Quonet Apartments—Unfurnished $20.00, Furnished $23.00. (per month)
Pre-Fab Apartments—Unfurnished $25.50, Furnished $29.50. (per month)
The college operates a private trailer park and students may rent trailer space for $4.00 per month.

For additional information write the College Housing Office, Main Building, U.S.A.C., Logan, Utah.

AERONAUTICS

H. A. BUNTINE, Assistant Professor

37. Private Certificate. Flight School Primary. Flight training to meet C.A.A. requirements. Satisfactory completion of C.A.A. tests required for satisfactory completion. Prerequisites: Aero 31 and 32. Time arranged. 3 credits. Both sessions. 2T. Buntine

134. Air Age Education. Designed primarily to assist teachers in gaining an insight into the social, economic, political, and international implications of the Air Age, and to assist them in acquiring an understanding of the importance of aviation to communities. The course will assist teachers in presenting and integrating air age materials to the various academic levels. Course content includes: need for air age education, aerodynamics, navigation, weather, economics of air transportation, use of teaching aids, and contributions of government agencies and air lines. First Session. M.T.W.Th.F. 10-11. 3 credits. T8. Buntine

AGRICULTURAL ECONOMICS AND MARKETING

W. P. THOMAS, Professor
E. M. MORRISON, Associate Professor
MARVIN A. SCHAA R S, Visiting Professor

155. **Principles of Agricultural Economics.** An analysis of the field of agricultural economics with emphasis on the application of economic principles to the solution of agricultural problems. 3 credits. Daily at 10. First session M-178.


113. **Seminar in Cooperative Marketing.** Primarily to give students advanced training and experience in agricultural cooperation. Prerequisite or taken simultaneously: Agri. Econ. 112. 2 credits. Daily at 2. Second session. M-178.

**AGRICULTURAL EDUCATION**

STANLEY S. RICHARDSON, Professor
S. S. SUTHERLAND, Visiting Professor

288. **Special Problems.** For teachers of vocational agriculture who desire to develop a more practical program for future, young, and adult farmers. Held during Agricultural Teachers Summer Conference. 8 to 11 daily for 2 weeks. 3 credits. First session. Rural Arts Building.

Sutherland and Richardson

**AGRONOMY**

D. W. THORNE, LEMOYNE WILSON, DEVERE MCALLISTER, Assistant Professors.


114. **Soil Survey.** 3 credits. M. at 7. Students must arrange to spend 5 days in soil survey in Weber County. Both sessions. P-105.

Wilson

218. **Special Problems in Agronomy.** Special problems in crop production, crop breeding, soil fertility or other phases of agronomy work are investigated. Students review literature on the problem and conduct experiments in the laboratory or on field plots Credit and time arranged. Both sessions.

Staff

230. **Research and Thesis.** Outlining and conducting research in soils or farm crops and preparation of thesis. Credit and time arranged. Both sessions.

Staff
AIR CONDITIONING AND REFRIGERATION

J. C. SHARP, Assistant Professor

122. Advanced Commercial Air Conditioning. 3 Credits Daily 1-4. First Session. TH101.
193. Advanced Laboratory Work. Advanced laboratory work in the construction, testing, and repair of specialized air conditioning and refrigeration equipment. For junior and senior students majoring in Air Conditioning and Refrigeration. One lecture, two labs. First Session. 3 Credits. TH102.

ANIMAL HUSBANDRY

J. A. BENNETT, L. E. HARRIS, Professors; HYRUM STEFFEN, Assistant Professor.

160. Livestock Production Problems. Problems in livestock production, particularly in Utah. Students are expected to apply knowledge acquired in previous courses in the solution of problems they will face in the field after graduation. Prerequisites: A.H. 110 and 125. 3 credits. Daily at 7. First session. L203.

201. Problems in Animal Breeding. Special assignments, reports and discussions. Students review literature in various phases of animal breeding, and prepare a comprehensive and critical review of at least one phase of the subject. Prerequisite: A.H. 155. Credit and time arranged. Both sessions.


220. Problems in Animal Production. Same as A.H. 201, except work is in animal production. Prerequisite A.H. 160. Credit and time arranged. Both sessions.

230. Animal Breeding Research. Students outline a research problem in some phase of animal breeding, making a critical review of pertinent literature, collect, analyze necessary data and prepare a report of the work done. This work may be the thesis material for the M.S. degree, or may be done for graduate credit apart from the thesis. Credit and time arranged. Both sessions.

240. Animal Nutrition Research. Same as A.H. 231, except that research is in some phase of animal nutrition. Credit and time arranged. Both sessions.

250. Animal Production Research. Same as A.H. 230, except that research is in some phase of animal production aside from breeding or nutritional problems. Credit and time arranged. Both sessions.

ART

FLOYD V. CORNABY, H. REUBEN REYNOLDS, Professors; JESSIE LARSON, Associate Professor; EVERETT THORPE, Assistant Professor; WARREN B. WILSON, GAYLEN HANSEN, Instructors.

Visiting Faculty
J. ROMAN ANDRUS, HERBERT BARTLETT, DELBERT NAPPER

2. Design Creation and Application. Problems in creating designs for application to specific projects: Instruction is adapted to the in-
dividual, satisfying the needs of teacher, homemaker, hobbyist, or scout, summer camp and recreational counselors. Room M335. Daily 7-9. 3 credits. First session.

7. **Freehand Drawing.** Objective drawing of natural forms from observation and memory in various media. A desirable prerequisite to all painting courses. 3 credits. Daily 7-9. First session. Room M33B. **Thorpe**


104. **Creative Expression.** 2 credits. Daily 11. Second Session. M33B.

112. **Ceramics.** Art of making pottery, tiles, figurines, etc. Studio. 2 credits. First session. Daily 1-3.

114. **Leathercraft.** Design and construction of wallets, belts, bags, and related projects. Room M333. Daily 3-5. First session. 2 credits. **Wilson**

135. **Commercial Illustration.** Fashion design and illustration, advertising. 3 credits. First session. Daily 10. M33S.

152. **Art in Elementary Grades.** Methods of teaching drawing, painting, and modeling in elementary schools. 2 credits. Second session. Daily 10. M33S.A. **Fletcher**

153. **Art Education Workshop.** This course is designed to give teachers a chance to explore the field of art experiences, to work with many types of art media, to explore the background material and to develop a philosophy of art suited to the learning needs of the growing child. This course will introduce the recently completed Art Supplement to the Teaching Guide for the Elementary Schools of Utah. This course is designed to give help to the regular classroom teacher. First session—first three weeks. 5 credits. Daily, time arranged. **Reynolds, Andrus, Bartlett, Napper**


**AUTOMOTIVE TECHNOLOGY**

EDWARD L. FRANCE, Assistant Professor; OWEN SLAUGH, LYNN WILLEY, Instructors.

52. **Automobile Power Plants.** Principles and practice in the construction, operation and servicing of the modern automobile power plant. Units of the course include cylinder block assemblies, piston assemblies, crankshaft assemblies, valve assemblies, clutches, transmission, overdrive, fuel, cooling and lubrication systems. Open to any college student. 3 credits. M.T.W.Th. 9-12. First session. **Slough**

162. **Metal Refinishing.** Principles and practice in preparing of metal for refinishing. Fundamental procedures in priming, surfacing, and applying of lacquer and enamel. 3 credits. Daily 9-12. Second session. **Willey**

**BACTERIOLOGY AND PUBLIC HEALTH**

W. WHITNEY SMITH, KENNETH R. STEVENS, Professors; LEWIS W. JONES, Associate Professor.

1. **Elementary Bacteriology.** Fundamental properties of bacteria and other microorganisms, and also the applied relationships between
men and microorganisms. 4 credits. 7 to 9 M.T.W.Th. P-302. First session.


197. Bacteriological Problems. Closely supervised library or laboratory study in a selected problem in bacteriology. Prerequisite: Two laboratory courses in bacteriology. Sixty-six clock hours arranged. 2 credits. Both sessions.


299. Research and Thesis. Students outline a research problem in some phase of bacteriology, make a critical review of pertinent literature, collect and analyze necessary data and prepare a report of the work done. This work may be the thesis material for the M.S. degree, or may be done for graduate credit apart from the thesis. Time and credit arranged. Both sessions. P-304.


257. Advanced Public Health Problems. Special assignments, reports, and discussions. Review literature of various phases of public health and preparation of a comprehensive and critical review. Time and credit arranged. Both sessions. P-305.

BOTANY

W. S. BOYLE, Associate Professor ARTHUR H. HOLMGREN, Associate Professor.


BUSINESS ADMINISTRATION (Including Accounting and Merchandising)

V. D. GARDNER, L. MARK NEUBERGER, Professors.

1. Introductory Accounting. Presents basic principles of accounting in the form of lectures, questions, problems and practice sets which
require application of the theory advanced. Principles and techniques
learned here will be useful as a basis for further study of accounting
and as an aid in the understanding of the more common problems of
business. Technique will be emphasized. Both sessions. 5 credits. Daily
8. M354.

25. Introduction to Business. Fundamentals of business administra-
tion. Provides a background for the study of the more complex problems
of business. Open to freshmen. Lectures and reports. First session. 3

L. M. Neuberger

62. Principles of Marketing. (See Ag. Econ. (62) Required of all
majors in business administration and merchandising.

64. Retail Selling. This course is designed for students who are
working in the retail field, and others who may desire some knowledge
of retail selling. Among the principles stressed are: thorough knowledge
of the merchandise sold; the aim of understanding and having a keen
interest in customers; maintaining constructive attitudes toward the
selling job; and the use of proper sales techniques. Both sessions. 5

150. Managerial Accounting. This course emphasizes the use of
accounting as a tool of control for management. Major aspects will
include budget and managerial control, elements of an accounting
system, and problems of cost interpretation. Second session. 4 credits.

Staff

175. Office Management. Emphasis on principles of office manage-
ment, duties and responsibilities of the office manager; type of organ-
ization; methods of control; office arrangement and equipment; job
analysis; selection, employment, and training of employees. Prere-
quissites, introductory accounting and general economics. First session.

L. M. Neuberger

CHEMISTRY

REUBEN L. HILL, SHERWIN MAESER, DELBERT A. GREENWOOD,
Professors; MELVIN C. CANNON and HARRIS O. VAN ORDEN,
Associate Professors.

3. Chemical Principles and Qualitative Analysis. An introduction
to chemical theory and the principles of chemistry. Prerequisites: high
school chemistry or physics, algebra and geometry. Designed for science
majors, pre-med. and pre-dental students and home economics majors
in foods and nutrition. Lecture M.W.F. 9. Lab. arranged. 5 credits. Both
sessions. W204.

Maeser

10-11. General Chemistry. Fundamental principles of inorganic
chemistry. Both terms. 5 credits each term. Open to any matriculated
students. Lecture daily at 10. Lab. daily 2-5. W204.

Cannon

and volumetric analysis. Prerequisite Chem. 5. The course is so
designed that it presents a terminal course for majors in agriculture,
home economics and premedical or pre-dental students. Both terms.
Lecture M.T.W.Th.—1, Lab. M.T.W.Th. 2-5. 4 credits each term. W204.

Cannon

90-190. Elementary Biochemistry. Both Sessions. Lectures M.W.F. 9,
Lab. M.W. 2-5. 5 credits. W103.

Greenwood
189-289, 192-292, 193-293. **Biochemistry.** For senior and graduate students only. Time and credit arranged. Greenwood

125-126. **Applied Organic Chemistry.** Biological applications are emphasized. Designed especially for students in Agriculture, Home Economics, and Nutrition. Both terms. 5 credits each term. Lecture Daily 8, Lab. Daily 2-5. Prerequisite Chemistry 10 and 11, or equivalent. W204. Van Orden

198-298. **Research.** Senior or Graduate Students in Chemistry may register for research in any branch of the subject. Time and credit arranged.

136. **Chemistry for High School Teachers.** Special topics and recent advances in Chemistry for teachers of high-school chemistry. Daily 8. 3 credits. First session. W103. Maeser

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**CHILD DEVELOPMENT**

**HELEN L. PORTER,** Assistant Professor; **MARIAN AIKIN,** Instructor.

174. **Nursery School Methods.** Must parallel practice teaching. Special consideration will be given to understanding the needs of individual children in the nursery school, and evaluating the principles used in guiding them. 3 credits. Daily 7. First session. Nursery School. Aikin

175. **Practice Teaching in the Nursery School.** Open to qualified Senior students. Check prerequisites with instructor before enrolling. Time and credit arranged. Nursery School. Aikin

**Note:** Students must see instructor before registering for either of the above.

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**CLOTHING, TEXTILES AND RELATED ARTS**

**FLORENCE GILMORE,** **MIGNON PERRY,** Assistant Professors; **EILEEN DEAN,** Graduate Assistant.

6. **Construction Problems.** Open to all college girls who wish to develop skill in construction techniques. 3 credits. Daily 8-11. First session. H214. Gilmore

33. **Home Furnishings.** Planned to develop skill in selecting and technique in making, remodeling and caring for home furnishings. The laboratory includes instruction in making of draperies, curtains, lampshades, use of sewing machine attachments, refinishing and upholstering furniture. 3 credits. Daily 1-4. First session. H216. Dean

41 or 141. **Weaving.** Designing and weaving of personal and household articles. Aim of the class is to develop an understanding of basic fabric construction and skill in the various techniques of hand weaving. First 3 weeks only—credit arranged. H206. Sec. 1—8-11, Sec. 2—1-4. Perry

165. **Tailoring.** Application of techniques used in tailoring suits and coats. 3 credits. Daily 8-11. First session. H214. Gilmore

169. **Newer Developments in Textiles.** Designed for teachers and advanced students of Clothing and Textiles who want to be brought
up-to-date on trends in the field of textiles. Class includes a study of fibers, finishes, and materials being placed on the market and economic conditions affecting their production as well as factors influencing choice and care of present-day materials. Prerequisite, Textiles 24 or equivalent. 2 credits. M.W.F. 2. First session. H208.

190. Special Problems. Independent study under direction of professor of a problem in the area of clothing or textiles. Time and credit arranged. H204.

Sec. 1—Miss Gilmore
Sec. 2—Miss Perry

DAIRY INDUSTRY

GEORGE B. CAINE, A. J. MORRIS, Professors; PAUL B. LARSEN, LLOYD HUNSAKER, Associate Professors

1. General Dairy Husbandry. History and present status of the dairy industry; starting dairy herds; breeds of dairy cattle; cow testing associations; club work; study of herd records; and calf feeding. 3 credits. Daily at 9 with lab. arranged. First session. L203.

Caine and Hunsaker

7. Plant Practice. For special or short course students only. Practice in plant manufacture emphasized. Time and credit arranged. Both sessions.

Morris and Larsen

105. Management and Operations. Personnel problems, advertising, selling, managerial use of records, and other principles underlying successful management and operation are considered. All operations of the creamery are conducted by this class. Application for admittance must be made in writing. 6 credits. Time arranged. Both sessions.

Morris and Larsen

110. Dairy Production. A brief review of dairy cattle breeding, calf feeding and management, factors influencing the growth and development of dairy cattle, the care and management of dairy herds, and some attention to feeding and housing dairy cattle. 5 credits. Daily at 10 with lab. arranged. Both sessions. L203.

Caine and Hunsaker

150. Special Problems in Dairy Production. Arranged for a limited number of students. Time and credit arranged. Both sessions. Staff

154 or 254. Special Problems in Dairy Manufacturing. Time and credit arranged. Both sessions.

Morris and Larsen

216. Research in Dairy Production. Arranged for a limited number of students. Time and credit arranged. Both sessions. Staff


Morris and Larsen

ECONOMICS

EVAN B. MURRAY, Professor LEONARD J. ARRINGTON, LEO M. LOLL, JR., Assistant Professors. W. L. WANLASS, Professor Emeritus.

51. General Economics. For the general college student regardless of field or specialization. Emphasis is on understanding of principles and institutions underlying operations of the economic system. 5 credits. Daily 8. Both sessions. M357.

Loll, Arrington
125. **Trade-Unionism and Collective Bargaining.** Development, structure, function, government, and philosophy of trade unions in United States; making and administering collective agreements; impact upon the system; policy issues. 3 credits. Daily 8. First session. M357.

**Murray**

143. **Economy and Trade of Latin America.** The countries of Latin America are taking an increasingly important place in world trade. This trade and the economics are studied. 2 credits. Daily 9. Second Session. M355.

**Wanlass**


**Loll**


**Wanlass**

165. **Money, Credit and Prices.** The structure and operations of money and financial institutions. Special attention given bimetallism, the gold standard, the money market and the relation of money and credit to prices. Prerequisites: Econ. 51, 52. 3 credits. Daily 10. First Session. M357.

**Murray**


**Arrington**

**EDUCATION**

E. A. JACOBSEN, JOHN C. CARLISLE, L. G. NOBLE, STANLEY S. RICHARDSON, Professors; CASEEL BURKE, EDITH SHAW, Assistant Professors. PEARL S. BUDGE, BEN VAN SHAAR, LARUE PARKINSON, Instructors.

**Visiting Faculty**

N. J. BARLOW, S. S. SUTHERLAND, CHARLES W. BOARDMAN, LAVELLE DOWNING, H. GRANT VEST, PAUL H. DENGLER, ALTA MILLER, N. BLAINE WINTERS, MYER L. CRUMB.

101. **The Basic Ideas of Ten Great Books.** The "books" selected for this course of study have greatly influenced the thinking of the western world. The series will begin with the Book of Job and end with the Declaration of Independence. 2 credits. Daily at 1. Second Session. M280.

**Chase**

104. **Elementary Schol Curriculum.** Designed to familiarize prospective elementary teachers with the content of the elementary curriculum, the objectives and standards to be realized in the grades, and to extend the student's scholarship in the various fields explored by pupils of the elementary school. 3 credits. Daily 10. First session. M356.

**Burke**

106. **Student Teaching in Elementary Schools.** Opportunity is provided for directed teaching for students who have completed require-
ments for secondary school certificates and who wish to fill requirements for elementary school certificates in addition. Enrollment by permission. 5 credits. Arranged. First Session.


107A. The Improvement of Reading. Particular problems in the teaching of reading in the elementary school are considered. Making reading an effective integral part of the total curriculum of the school is emphasized. July 2-20. Daily 10. 1½ credits. M358.


114. Organization and Administration. Fundamental principles of organization and administration of schools in the American public school system with emphasis on Utah conditions. 3 credits. Daily 7. First Session. M80.

115. Secondary School Curriculum. The nature and function of the curriculum. Different viewpoints respecting the curriculum, and examples of new type curricula now attracting attention in various parts of this country are examined. Daily 11. Second Session. 3 credits. M281.

123. The Teaching of English. A practical course for those who are either teaching or planning to teach English in public schools. The purpose is to study materials and methods in the three fundamental areas of English instruction: grammar, composition, and literature. 3 credits. Daily 9. First Session. M363.

124. Methods of Teaching Farm Mechanics. Scope of mechanics in agriculture, lesson planning, course of study preparation, shop equipment and management, skill requirements, and supervised practice. 3 credits. Daily except Friday 8-10. First Session. M83.

129-130. Student Teaching in the Secondary School. In a limited number of cases arrangements can be made for student teaching during the summer quarter. Enrollment only by special permission of the instructor. Credit and hours arranged.

136. Improvement of Teaching in Elementary Schools. An analysis of the newer concepts of method and the basic factors affecting learning. Emphasis upon pupil growth, purposing, problem solving, and labor-

138. Improvement of Teaching in Secondary Schools. Designed to meet the needs of teachers, supervisors, and administrators. Emphasis will be upon recent developments in the improvement of teaching-learning situations and activities from the junior high school to the junior college. 3 credits. Daily 8 First Session. M361. Budge

146. Purposes and Procedures in Kindergarten. A course planned to acquaint teachers of kindergarten with the purposes and organization of kindergarten. Emphasis will be upon fundamental principles of child guidance. Current kindergarten practices, materials and equipment will be studied and evaluated. Five hours of observation weekly at the demonstration kindergarten and nursery school will be required. (Nursery School consultant: Mrs. Marian Aikin.) Class discussion M.W.F. 1. Observation 5 hours weekly arr. (9-11). 3 credits. Limited registration. Nursery School. First Session. Parkinson


161. Audio-Visual Aids in Education. Emphasizes the importance of audio-visual aids in the school program. Building a workable program in which are utilized the newest materials and techniques. 3 credits. Daily 1. First Session. M83. Crumb


165. Rural Education. Opportunities and problems confronting teachers in rural schools will be discussed. Emphasis will be given to developing materials and methods for the rural community-centered school. 1½ credits. Daily 1. June 11 to June 29. M356. Barlow

194. International Folklore in Education. Emphasis will be placed upon the customs and traditions of western civilization which have become incorporated into school systems, curricula, and procedures of the various nationalities. The aim of the course will be to increase inter-cultural understanding. 2 credits. Daily 1. June 11 to June 29. M356. Barlow


205. Reading and Conference. Provides for individually directed study in the fields of one's special interest and preparation. 1-2 credits. Either session. Arranged. Enrollment only by special permission of the Dean of the School of Education. Jacobsen & Staff


211. Educational Measurements and Statistics. The fundamental principles of measurement tests and test construction, statistical ana-
lysis, and evaluation procedures in education. 3 credits. Daily 7 plus 3 hours weekly arranged. Second session. M287.


223. Rural School Administration. The Conference of Rural School Administration will occupy the first week of this course. The subsequent two weeks will be devoted to an intensive study of problems in the field. 1½ credits. Daily 9. June 11 to June 29. M356.

225. Special Problems in Agricultural Education. A consideration of needs of individual students and special types of service. 1-2 credits. Daily 8-10. First session. M83.


236. Secondary School Administration. Selected topics in secondary school will be considered; teacher-pupil personnel, instructional activities all will be considered. 3 credits. Daily 10. First session. M281.

250-51-52. Master's Essay. Individual guidance in the preparation of research papers as part of research requirement for the Master of Science degree. Time and credit arranged. Either session. Staff


271. Research and Thesis Writing. Provides for individual work in thesis writing with the necessary guidance and criticism. Enrollment only on permission of instructor with whom the student will work. Credit and time arranged. Either session. Staff

ELECTRICAL ENGINEERING

LARRY S. COLE, Professor; CLAYTON CLARK, Associate Professor; WILLIAM L. JONES, Assistant Professor.

Any course listed in the regular catalog will be given in the summer sessions upon petition of a sufficient number of students who may need and desire such a course.
Summer Surveying Camp

The student is responsible for his own transportation to the field and return each day, his living expenses, and the registration fee. Prerequisite, C.E. 85 and immunization for Rocky Mountain Spotted Fever. 7 credits. First Session. Daily 8 to 5.

Note: Any course listed in the General Catalog, not in sequence order, will be taught, upon the request of 8 or more students. Such request must be submitted in writing before May 15, 1951.

ENGLISH

WALLACE J. VICKERS, Professor; WENDELL M. KECK, MOYLE Q. RICE, HUBERT W. SMITH, Associate Professors; MAXWELL D. EDWARDS, Assistant Professor; J. LYNN MORTENSEN, Instructor; ANNE SMITH, Lecturer.

10. Sophomore Composition. Required of all students not offering its equivalent. May not be taken in the freshman year. Emphasizes correctness and effectiveness in sentence, paragraph and theme; gives practice in organization and outlining of material, and in expository writings; demands clear, forceful expression, and requires a full third of a student's time. 5 credits. Daily 10. Both sessions. N314.

17. Freshman English. For forestry, engineering and technology students only. Drill in fundamentals of sentence and paragraph structure. Exercises in grammar, vocabulary, and spelling. Composition with


110. Advanced Composition. For students who have taken English 10 or 11; may be taken in place of English 19 by students who have received credit in English 17 and English 18 and who have transferred from Forestry or Engineering; may be taken by transfer students who have six credits in Composition. Emphasizes vocabulary, selection and clear organization of material. 4 credits. M.T.W.Th. 10. Both sessions. N136.


ENTOMOLOGY

DATUS M. HAMMOND, G. F. KNOWLTON, Professors.

102. Systematic Entomology. Each student must collect, properly mount and label a representative collection of insects containing at least 400 specimens, at least 125 species, and at least 15 orders. The whole collection must be arranged in phylogenetic sequence. Classification must include a correct placing of all specimens in order. Two full day field trips will be taken. To be taken only with permission of instructor. Prerequisite: Ent. 13. Time arranged. 3 credits. Either or both sessions. Three labs. M228.

103 or 203. Systematic Entomology. Continuation of Ent. 102. The collection arranged for Ent. 102 must be enlarged to at least 700 specimens, 225 species, 100 families and 18 orders. Classification will include a correct placing of specimens in families. Two full day field trips will be taken. To be taken only with the permission of the instructor. Prerequisite: Ent. 101. 3 credits. Time arranged. Either or both sessions. Three labs. M228.

104 or 204. Systematic Entomology. Continuation of Ent. 103. Permission to take this course depends on the student’s collection for Ent. 102 and 103. If his collection justifies further study, he may select one or two orders of insects and classify them to species. To be taken only with the permission of the instructor. 3 credits. Time arranged. Either or both sessions. Three labs. M228.
210. Special Problems. Students may select or are assigned problems dealing with certain phases of Entomology. The amount of credit depends on nature of problem and time spent. Open to undergraduate students only by special permission. Prerequisites: Ent. 13, 103, and 108. Time and credit arranged. Either or both sessions. **Staff**

234. Readings in Entomology. Assigned readings of advanced nature. Time and credit arranged. Either or both sessions. **Staff**

250. Research and Thesis. For research connected with problem undertaken for partial fulfillment of requirements for Master of Science degree. Time and credit arranged. Either or both sessions. **Staff**

**FOODS AND NUTRITION**

E. O. GREAVES, U. VERMILLION, Professors.

101s. Catering. Planned to give a working knowledge of the techniques and management involved in catering to large groups of persons for special occasions; such occasions to be varied in their nature. Specific work assignments will include planning, purchasing and executing. No pre-requisites. Open to any student. Class limit to twelve. Summer. Lecture M. W. 9:00; Laboratory arranged. 1½ Credits. First three weeks. Cafeteria. **Vermillion**

146s. Conservation and Technology of Food. A lecture and laboratory course in approved scientific, practical methods of food processing, preservation and storage and its influence upon the nutritive value of the foods. 3 Credits. TWTHF 9. Lab. Mon. 2-5. First session. H103. **Greaves**

**FOREST, RANGE, AND WILDLIFE MANAGEMENT**

LEWIS M. TURNER, J. W. FLOYD, T. W. DANIEL, W. F. SIGLER, G. H. KELKER, Professors; A. D. SMITH, C. M. BOWEN, R. R. MOORE, Associate Professors; C. M. BOWEN in charge of Summer Camp.

**FORESTRY SUMMER CAMP**

The School of Forest, Range, and Wildlife Management owns or controls 3,000 acres of forest and range land approximately 25 miles from the campus within the Cache National Forest, where summer camp facilities are established. Eleven weeks of field instruction is given at the Tony Grove Summer Camp and is required for graduation for all students in the School of Forest, Range, and Wildlife Management. Attendance at this camp is required between the sophomore and junior year and is prerequisite to the technical courses of the junior and senior years.

There are five instruction courses offered at summer camp with a total of 16 credits, and students in the School of Forest, Range and Wildlife Management are required to take all five courses. This summer camp opens Monday, June 5 and continues for a period of 11 weeks.

**Forestry**

90. Improvements. Practical field problems in trail and telephone construction, the use of field radios; methods of fire prevention, detection and suppression; care and use of woods tools and horses in Forest, Range, and Wildlife work. Problems in construction, planning recreational areas, and water development. 3 credits. Summer Camp. **Floyd and Turner**
95. **Camp Management.** Planning and supervising the purchase of supplies, camp safety, camp sanitation and other camp management problems during forestry summer camp. One credit. Summer camp.

96. **Surveying.** Practical field problems in surveying methods commonly employed in forest, range, and wildlife management. Type mapping. 3 credits. Summer camp.

97. **Forest Practice.** Study of timber types and successional stages. Timber cruising, log scaling, inventories and growth of immature stand, stem analysis, taper measurements, sample plots, milling and utilization studies. Three credits. Summer camp.

98. **Range Practice.** Field work in range management involving familiarization with vegetation, training in making reconnaissance, methods of studying vegetation and determining utilization. In addition, time will be devoted to range improvement and management planning. 3 credits. Summer camp.

195. **Range Problems.** Individual study and research upon a selected range problem. 1-3 credits. Summer camp.

200. **Thesis.** Original research and study on a problem in range management. This course is open only to graduate students. 1-15 credits. Summer Camp.

**Wildlife Management**

99. **Wildlife Practice.** A survey of lakes and streams for improvement purposes and for restocking; the use of census methods for big game, game birds, and rodents; rodent identification and study of deer and elk ranges. 3 credits. Summer Camp.

170. **Wildlife Problems.** Individual study and research upon a selected wildlife problem approved by the instructor. Prerequisite: Wildlife 172. 1-5 credits.

270. **Advanced Wildlife Problems.** Research problem chosen, the project outlined and planned, and data collected by the student qualified for investigations in Wildlife Management. 5-15 credits.

272. **Wildlife Thesis.** Analysis, presentation, and interpretation of field data for the graduate thesis. Prerequisite: Wildlife 270. 5-15 credits.

**FORGE PRACTICE**

J. DONALD WADSWORTH, Assistant Professor.

82. Fundamental operations of forging, such as shaping, bending, punching, hardening, tempering, and forge welding. Prepares students for forging jobs in repair shops, construction camps, and industrial maintenance shops. Excellent training for metal workers entering present-day industries. Both sessions. 2 credits. TTh 7-10. All1.

A.E. 113. **Farm Machinery Repair.** Applied problems in farm machinery repair and maintenance. Prerequisite: Forging 81a, and Welding 96, or equivalent. Both sessions. 3 credits. MWF 7-10. AE Shop.

Wadsworth
GEOLOGY AND GEOGRAPHY

J. STEWART WILLIAMS, Professor; A. J. KORSOK, Instructor.


HISTORY

JOEL E. RICKS, J. DUNCAN BRITE, Professors; S. GEORGE ELLSWORTH, Assistant Professor.

14a. United States History. From the Civil War to the twentieth century. 3 credits. First session. Daily 10. N312. Ricks
14b. United States History. From the beginning of the twentieth century to the close of the first World War. 2 credits. Second session. Ellsworth

106. Roman History. From the beginnings of the Roman Republic to the decline of the empire in the West in the fifth century, A.D. 4 credits. Second session. Daily 8-10. N312. Ellsworth

111. Medieval Economic and Social History. Economic and social development of the Middle Ages from the fifth to the fifteenth century. 3 credits. First session. Daily 8. N318. Brite


HOME ECONOMICS EDUCATION

HELEN CAWLEY, Associate Professor.


199. Special Problems in Home Economics Education. Developed around individual needs of students. Emphasis on use of community resources, development of home experience, and Future Homemakers of America program. 1-2 credits. Time arranged. First session. H207. Cawley

HORTICULTURE

S. W. EDGECOMBE, Professor; ROBERT K. GERBER, Assistant Professor.

101. **Advanced Pomology.** Principles and practices of orcharding, fruit industry, morphology, flower bud formation, orchard sites and soils, cultural practices, harvesting and storage, varieties, propagation and stocks. Prerequisites: Bot. 24, 25; Chem. 12 or 121; Agron. 56; Hort. 1 and if possible Hort. 6. 3 credits. M.T.W.TH.F 7. Second session. Lab. M.W.F. 1. TB12.  

**Gerber**

110. **Orchard Practice.** Laboratories to accompany 101, 102 advanced field work in orchard and small fruit production. Prerequisites: Hort. 1 and if possible Hort. 6 and 8. 1 credit. Time arranged. First session. TB1.  

**Gerber**

111. **Orchard Practice.** Same as 110. 1 credit. Time arranged. Second session. TB12.  

**Edgecombe**

153. **Seminar.** Oral and written reports on research papers and original work by student. 1 credit. Time arranged. First session. TB12.  

**Gerber**

154. **Seminar.** Same as 153. 1 credit. Time arranged. Second session. TB12.  

**Edgecombe**

204. **Research.** Original research in pomology or floriculture by graduate students taking a major or minor in horticulture. Registration by permission only. 1-10 credits. Time arranged. First session. TB13.  

**Edgecombe**

205. **Research.** Same as 204. 1-10 credits. Time arranged. Second session. TB13.  

**Edgecombe**

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**HOUSEHOLD ADMINISTRATION**

ORETTA M. CLAWSON, Instructor


**Carlson**

150. **Residence in the Home Management House.** A six weeks' resident course affording senior college and graduate women an opportunity to apply principles of scientific and practical management of actual home problems. Application for residence in the house should be made at an early date through the Dean of Home Economics. Prerequisite: H. Ad. 149, or concurrent registration, or the equivalent. 3 credits. Time arranged. First session.  

**Carlson**

160. **Special Problem in Household Administration.** 2 credits. Time arranged. First session.  

**Carlson**

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**INDUSTRIAL EDUCATION**

WILLIAM E. MORTIMER, Professor; E. L. FRANCE, C. D. McBRIDE, Assistant Professors; BERT V. ALLEN, FRED R. PRYOR, VERN R. BEECHER, Instructors.


13. **Driver Training.** Designed for those who desire to learn to drive an automobile correctly and safely. Includes a study of traffic rules and regulations essential to sound driving; physical qualifications and tests of drivers; general mechanics, operation, and servicing of the
automobile; highway safety engineering; and actual supervised training in dual-control cars. 2 credits. First session. MWF 3. Lab arranged. T7.

102. Instructional Aids. Instruction in the purpose, types, sources, preparation and proper use of audio and visual aids, including samples, models, charts, graphs, slides, still film, movie film, sound film, and other aids suitable for classroom and auditorium use. 3 credits. Second session. Daily 8, plus 3 hours arranged. A219.

110. Shop Organization and Management. Teaches students to organize and manage an Industrial Education shop of the unit, general, or multiple activity type. Each student prepares, for one type of shop, a complete plan of organization and management, dealing with the necessary equipment, materials, supplies, methods of purchasing, financial control, and problems of shop arrangement. 3 credits. First session. Daily 9. A220.


113. Driver Training and Traffic Safety. To acquaint prospective teachers and others with available instructional materials in the field of driver education and the latest methods of presenting such materials in the classroom and on the road. Supervised practice will be arranged for each student. 3 credits. First session. MWF 2-4. Lab. arranged. T7.

120. Personnel Relations. Training for leadership in industry as foremen, supervisors and directors. Problems in organizing, supervising, training and directing personnel. A series of directed conferences based on student experiences and directed studies in leadership problems and principles. 3 credits. First session. Daily 1. A219.

145. Industrial Arts Applied Electricity. A course to provide the prospective teacher with an understanding of how the basic principles and applications of electricity in the home and in industry should be prepared for the industrial arts program of the secondary schools. Pre-requisite: Radio 21. 3 credits. First session. Daily 2. Lab. arranged. A219.

167. Special Problems in Industrial Education. Designed for qualified students majoring in Industrial Education who wish to do specialized work not covered by other courses. Approval of the major professor and instructor must be obtained. Both sessions. Time and credit arranged. A220.

207. Advanced Philosophy of Vocational Education and the Practical Arts. Designed to enrich and expand the student's understanding of the nature and purposes of vocational education and practical arts, their relationships and differences, and the place each phase of the work should have in a public school program. Pre-requisite: IE 107 or equivalent. 3 credits. First session. Daily 8. A219.

261. Part Time Education. Content, methods, and special devices to be used in Part Time Education programs. Emphasis is placed upon pertinent problems and their solutions. Students prepare a syllabus
covering the essential materials for a course in Part Time Education. 3 credits. First session. Daily 1. A220. Robertson

263. Evening School Programs. Development, organization and improvement of evening school programs in Industrial Education. Students prepare a syllabus covering the essential materials needed for such a program. 3 credits. First session. Daily 10. A219. Stephenson

267. Reading and Conference. Provides for study in advanced and specialized problems in Industrial Education. Problems are selected with the approval of the department head, investigation being carried on under the direction of the major professor. Both sessions. Time and credit arranged. A221. Stephenson

271. Research and Thesis Writing. Provides for individual work in thesis writing in Industrial Education. The thesis is written in accordance with standard thesis requirements and under the direction of the major professor. Both sessions. Time and credit arranged. A221. Mortimer

290. Advanced Studies under Plan "B". Special library and seminar problems or studies designed to meet requirements for reports under plan "B". Both sessions. Time and credit arranged. A221. Mortimer

JOURNALISM

WILLIAM B. WARD, Visiting Professor

120. Technical Journalism. Intended to help persons specializing in agriculture, home economics, engineering or other technical subjects to use newspapers, magazines and radio more effectively. Daily 10. First session. 3 credits. E205. Ward

164. Publicity Methods. Media and methods used to inform the public and conduct public relations work as required by corporation, public institutions, service organizations, and governmental agencies. Daily 8. First session. 3 credits. E205. Ward

LANDSCAPE ARCHITECTURE

LAVAL S. MORRIS, Professor; KENJI SHIOZAWA, Assistant.

135. Travel Course. A major field trip to examine a variety of projects in land planning and design; town plans (with emphasis on residential areas) parks, parkways, cemeteries, airports, home, civic centers and others. This course, starting early in June, will be conducted to the West Coast with stop-overs on the way. It will last two to three weeks and will require a written report shortly after the termination of the trip. Photographs are required to supplement notes and observations. Time and credit arranged. Staff

LIBRARY SCIENCE

KING HENDRICKS, Director of Libraries;
PEARL J. CARTER, Ass’t Librarians; ANNE SMITH, Instructor.


MACHINE TOOL TECHNOLOGY

FREDERICK PREATOR, Professor; G. MERRILL SHAW, Assistant Professor; W. KARL SOMERS, Instructor.

51. Machine Tool Practice. Training in the use of hand tools, and in bench work and tool sharpening, together with elementary training on drill press and engine lathe. Tools and machine parts are made that give practice in the operations essential to machine shop work. Included are assignments of reading on machine work subjects, and application of mathematics to machine work. 3 or 5 credits. Daily 1-4. A103. Both sessions.

Note: Upon request of ten or more students, any of the courses listed in the regular catalog will be given.

Mechanical Drawing

91, 92, 93. Mechanical Drawing. The use of instruments applied to template drawing, graphic solutions, and lettering; standard elements and symbols which make up working drawings used in industry. The theory of shape and its representation in orthographic projections, section, auxiliary views, revolutions, and size descriptions. Isometric drawings and the translation of orthographic views into pictorial drawings. 2 credits each course. Either session. Time arranged. TC1.

Preator and Shaw

Note: Upon request of ten or more students, any of the courses listed in the regular catalog will be given.

MATHEMATICS

V. H. TINGEY, Professor; JOSEPH K. EVERTON, Instructor.


Note: Upon request of ten or more students any course listed in the regular catalog may be given in the Summer School Sessions.

MODERN LANGUAGES AND LATIN

GEORGE A. MEYER, Professor; GEORGE C. JENSEN, Professor Emeritus; THELMA FOGELBERG, MARION L. NIELSEN, Associate Professors; ALDYTH THAIN, Assistant Professor; JESSE G. NELSON, GORDON PORTER, Instructors.
SUMMER SESSION

French

M361.
106. Selective Readings. 2 or 3 credits. Daily 10. First session.
M361.

German

101. Intermediate German. 5 credits. Daily 10 and 1. First session.
M363.
M359.

Spanish

M363.

MILITARY AND AIR SCIENCE AND TACTICS

DEPARTMENT OF MILITARY AND AIR SCIENCE AND TACTICS—ADVANCED COURSE SUMMER CAMPS

Required as part of the Advanced Course in Military and Air Science and Tactics. For further information address this department at Utah State Agricultural College.

Duration: 6 weeks
Credits: 6
Dates: 15 June to 31 July (Approx.)
Pay: $75 per month
Mileage: $.05 per mile from home to Camp and return.

Army Cadets

Anti-Aircraft Artillery
  Fort Bliss (El Paso, Texas)
  Fort George E. Meade (Baltimore, Mo.)
Quartermaster Corps
  Fort Lewis (Seattle, Washington)
  Fort Lee (Richmond, Virginia)
Ordnance Corps
  Aberdeen Proving Ground (Baltimore, Maryland)
Signal Corps
  Fort Monmouth (Jersey City, New Jersey)
Chemical Corps
  Fort Meade (Baltimore, Maryland)
Corps of Engineers
  Fort Belvoir, Virginia (Washington, D.C.)
  Fort Lewis (Seattle, Washington)
Armored Cavalry
  Fort Knox (Louisville, Kentucky)
  Camp Hood (Dallas, Texas)
Infantry
  Fort Benning (Columbus, Georgia)
  Fort Lewis, Washington
Tank Destroyers
  Camp Hood (Dallas, Texas)
Air Force Cadets

Air Force Summer Camp has been cancelled for the summer of 1951. Instead, the basic course for Air Force Cadets, Air Science 1, will be given on the campus at the College during the entire quarter of the Summer School. For further information address: Department of Air Science and Tactics, U. S. A. C., Logan, Utah.

MUSIC

N. WOODRUFF CHRISTIANSEN, WALTER WELTI, Professors; GEORGE PAHTZ, JEAN W. MADSEN, Instructors. FRANK SIMON, ELDON A. ARDREY, Visiting Professors.

Instrumental Music

17s-117s. String Ensembles. Offering an opportunity for trios, quartets, and other small units. One credit. Time arranged. M252A.

40s-140s. The Art of Enjoying Music. A general introductory course of wide popular appeal. Previous music training or study not required. 3 credits. First session. Daily 2. Moore Library. Christiansen

77A. Concert Band. All members of the band will register for this course. High school graduates who meet college entrance requirements may receive one hour of college credit upon payment of registration fee. Daily 9-11, 3-4. (July 8-20) M32. Simon

77B. Orchestra. All members of the orchestra will register for this course. Credit given as for 77A. Daily 11-12, 1-3. July 8-20. M32. Christiansen


179A. The Marching Band and the Twirling Drum Major. A study of the fundamentals of marching and twirling. This course is designed to help the director or drum major who is a beginner or has had a limited amount of experience. 1/2 credit. July 8-20. Daily 1. M252A. Staff

182A. Advanced Marching and Twirling. This class is for directors and student drum majors who know the fundamentals of marching and twirling. Will deal with stunt formations for football and basketball games and with original maneuvers for marching festivals. Attention will be given to twirling problems of the individuals. 1/2 credit. July 8-20. Daily 4. M252A. Staff
SUMMER SESSION

183s. Student Marching Band. A demonstration of rehearsal methods with the marching band. 1/2 credit. First two weeks. Daily 5.

Staff

Private Instruction Courses

Credit 1 or 2 hours. Time arranged. Students receiving 1 hour credit must take six weekly lessons; 2 hours credit, twelve weekly lessons. For fees see catalogue.

53S-153S. Vocal Walter Welti, Patience Thatcher, Maxine Greenwood
60S-160S. Violin N. Woodruff Christiansen, Mischa Poznanski
63S-163S. Cello George Pahtz
50S-150S. Piano Lucy L. Christiansen, S. E. Clark, Thelma Lundquist, Jean C. Thatcher, Jeanne T. Welti
66S-166S. Pipe Organ S. E. Clark

Assistant Instructors

56S-156S. Brass Instruments Eldon Torbensen

Vocal Music

25s-125s. High School Chorus. Open to all high school students. Those who meet college entrance requirements will receive one hour of college credit. Last two weeks of first session. Daily 10 and 3. M207.

Ardrey

35s-135s. Summer Chorus. A recreation class in singing. Open to all Summer School students. The chorus will prepare a program for presentation in the summer school assembly series and elsewhere. 1 1/2 credits. M.W.F. 12. First session. M207.

Welti

27s-127s. Opera and its Background. A study of the historic background of opera from an appreciative basis and a review of some of the grand operas by means of recordings and general discussion. 1 credit. T.Th. 12. First Session. M55.

Welti

134A. Problems in Elementary School Music. This course is designed for the individual classroom teacher and will be given to the practical and specific problems of those enrolled, with emphasis on the techniques of teaching fundamentals of music, singing, rhythm and appreciation. Prerequisite courses in music are not required. 2 credits. Daily 1. First four weeks of first session. M55.

Madsen


Ardrey

132. Choral Materials Workshop. A seminar conducted on a Workshop basis for choral conductors, supervisors, and classroom teachers desiring help in reviewing standard choral resources, new publications, program planning, the integrated program, and methods of choral training. Opportunity will be given to work on individual problems, and class members will conduct a selected choir for laboratory evaluation of music materials. Persons enrolled in this seminar will be expected to keep time free to attend the regular rehearsals of high school choir. 1 1/2 credit. July 9-17. Daily 2. M55.

Ardrey
119. **American Political Thought.** The development of American ideas concerning the State and political authority from colonial times to the present. The nature and purpose, modes of organizing and controlling political action in terms of historical and social origins; and applicability to modern problems. Second sessions. 2 credits. Daily 9. M356.


180. **Current Political Problems.** A series designed for upper division students. Students may take any quarter without the preceding quarter or quarters, with the consent of the instructor. First session. 3 credits. Daily 10. M356.

165. **The Balkans.** A brief survey of the Balkan States with major emphasis placed on present political and economic problems of the area. Second three weeks, June 30-July 18. 1½ credits. Daily 8.

166. **Point IV in Latin America.** A consideration of the Latin American Countries with particular reference to the operation of the Point IV program. First three weeks of first session. Daily at 8.

**POULTRY HUSBANDRY**

C. I. DRAPER, Professor; A. B. STEPHENSON, Associate Professor; J. O. ANDERSON, Assistant Professor.

1. **General Poultry.** Breeds, judging, incubation, brooding, feeding, marketing, designed to meet the needs of the students wishing a general knowledge of the poultry industry and the problems of production, and a foundation upon which other courses are built. 3 credits. Daily at 10. First session. AH-305.


**PSYCHOLOGY**

ARDEN FRANDSEN, Professor; D. R. STONE, Associate Professor; ROBERT L. EGBERT, Assistant Professor.

102. **Educational Psychology.** A professional course for prospective high school teachers intended to increase understanding of personality and to develop greater insight into conditions for effective learning. Applications to development in adolescence of both normal and deviate personalities, to provisions for individual differences, and to learning junior and senior high school subjects are emphasized. Prerequisite: General Psychology. 5 credits. Both sessions. M361. Daily 10.

105. **Child Psychology.** The roles of maturation, learning, and environmental conditions in the motor, mental, social and emotional de-
Development of children from birth to adolescence. Generalizations with respect to individual differences, emotions, motivation, how children learn, observe, and think are applied to understanding and guiding children's behavior in home, school, and community. Prerequisite: General Psychology. 3 credits. First session. M281. Daily 9.

Educational Psychology for Elementary School Teachers. A study, from the points of view of psychological theory and research, of the aims, selection and sequence of content, methods of teaching, provisions for individual differences, and measurement of outcomes in the elementary school curriculum. Tool subjects are emphasized. For students at the graduate level, these may be developed. Prerequisite: General Psychology. 2 credits. Daily 10. First session. M281.

Applications of Statistics to Education and Psychology. An elementary study of the statistical procedures used in handling test scores in the schools and of the concepts needed to read current educational and psychological literature. First session. 3 credits. M281. Daily 1.

Clinical Psychology: Individual Diagnostic Intelligence Testing. Theory and techniques of individual diagnostic intelligence testing, including practice in the administration of (a) the Stanford-Binet and other individual tests especially suited to psychological examination of children and (b) the Wechsler-Bellevue and related tests for use with adolescents and adults. How to interpret test data so they will yield significant information on level of general ability, differential abilities, work methods, and on personality and adjustment are studied. Prerequisites: General Psychology and Elementary Statistics. For seniors or graduate students. 5 credits. 2nd session. M281. Daily 8-10.

Theory and Practice of Counseling and Psychotherapy. In educational and vocational guidance, in improving school achievement and worker efficiency, and in treating problem of personal and social maladjustments, the uses of the following procedures are studied: Non-directive counseling; directed problem-solving interviewing; giving advice, assurance, persuasion, and information; and of controlled family, school, club or camp, community, and institutional environments. Prerequisite: General Psychology. First session. 3 credits. Daily 8. M359.

Social Psychology. A study of the acquisition of personality or "self." The effect of society on the individual, and the individual's reciprocal effect on society is considered in terms of such topics as propaganda, institutional behavior, "social" neuroses, morale, leadership, membership, etc. Prerequisite: General Psychology. Second session. 3 credits. Daily 1. M281.

Psychology of Adolescence. The physical, intellectual, emotional, social, and cultural characteristics of adolescence, the processes of development and the factors affecting development, and the special problems of adjustments in adolescence. Prerequisite, Educational Psychology. Three credits. First session. Daily 10, M280.

SECRETARIAL SCIENCE

V. D. GARDNER, L. MARK NEUBERGER, Professors; INA DOTY, Assistant Professor; FLORIS OLSEN, Instructor; R. R. BROUGH, Special Lecturer.

Indexing and Filing. Drill and practice in alphabetic, numeric, triple check automatic, subject, decimal, geographic, and soundex methods of filing. Indexing, coding, and filing of letters, cards, blueprints,
and community; methods of promoting, organizing, and directing social games, social mixers; community outings, hikes, picnics, and parties. Students will be offered opportunities for practical experiences in leading various recreation activities. Men and Women. 2 credits, T.Th. 7-9 p.m.  

195-295. Problems in Physical Education. A course designed for upper division or graduate students. Special education problems of the class will be studied by the group. 3 credits, Daily 8. Hunsaker

207. Research in Physical Education. A course designed for graduate students. The course will deal with techniques of research, recognition of research problems, and a study of current research literature. 1½ credits, Daily 1. Miller

271. Research, Thesis Writing. Provides for individual work in thesis writing with the necessary guidance and criticism. Time and credit arranged. Hunsaker

282. Problems in Curriculum Construction. A course designed for upper division or graduate students. A study of the problems related to the construction of physical education curriculum in secondary schools. The material presented in the Utah State Course of Study will be considered. 1½ credits, daily 9. June 11-29. Miller

Second Session

157. Field Work Recreation. (Prerequisite: approval of department head.) This course is designed to give practical experience in conducting recreational programs at playgrounds and camps under the supervision of the college recreation staff and the director of the program to which the individual is assigned. Students will be expected to plan and conduct programs in a variety of activities applying principles, methods, and techniques gained in his prerequisite work. 4 credits, Daily 10. Gym. Staff


250. Reading and Conference. A course providing for individual directed study in physical education. Time and credit arranged. Hunsaker

271. Research and Thesis Writing. Provides for individual work in thesis writing and with the necessary guidance and criticism. Time and credit arranged. Hunsaker

PHYSICS

ROLAND PERRY, Professor; PHILIP J. HART, Associate Professor; JAY O. JENSEN, Assistant Professor; WILLARD GARDNER, Professor Emeritus.


20. Mechanics and Molecular Physics. 5 credits. Both sessions. Daily 8, Lab. M.W. 1 to 3 or 3 to 5. Room W108 & W106. Staff

*Any upper division course upon sufficient demand.
PHYSIOLOGY

DATUS M. HAMMOND, CLYDE BIDDULPH, Professors; THOMAS L. BAHLER, Assistant Professor.

4. General Physiology. For the student who desires a survey of physiology and who is not planning advanced intensive study in the field. It deals with the functioning of the human body with emphasis upon broad general biological principles. Second session. 5 credits. Daily 8 to 10. Room H212. Staff

160. Special Problems, Physiology. Special investigations in physiology are carried out in this laboratory course. Open to students who have taken Physiology 121, 122 or who have been granted special permission. Either or both sessions. 2 to 5 credits. Room H20. Staff

200. Special Problems, Physiology. Similar to 160 but for graduate students. Either or both sessions. Credit arranged. Room H20. Staff

260. Research and Thesis. Research connected with problem undertaken for partial fulfillment of requirement for Master of Science degree. Either or both sessions. Time and credit to be arranged. Room H20. Staff

POLITICAL SCIENCE

M. R. MERRILL, Professor; WENDELL B. ANDERSON, Assistant Professor. CLAYTON E. WHIPPLE, GEORGE WOODBRIDGE, Visiting Professors

70 or 170. Comparative European Governments. A comparative study of the various forms and kinds of governments that have developed in the modern world with primary attention directed toward Britain, France, and Russia. Second session. 2 credits. Daily 10. M356. Anderson

101. American Foreign Policy. The place in the United States in the family of nations as affected by our traditions, interests, and interpretations of international affairs. First session. 3 credits. Daily 9. M355. Merrill


161. American Middle East Relationships. A practical application of the material P. S. 160. It attempts to be specific about the manner in which the United States may translate the general purpose of the Point 4 program into an operating program in the middle east. 1½ credits. Daily 8. June 11-29. M302. Woodbridge

166. **American Balkan Relationships.** A practical application of the material P. S. 165. It attempts to be specific about the manner in which the United States may translate the general purpose of the Point 4 program into an operating program. 1½ credits. Daily 8. July 2-20. M302.

170. **Current Problems.** The summer school lecture program includes discussions of many vital problems of our time. Students who wish to earn credit by attending these lectures may do so by enrolling at the time of registration. Reports will be required and a minimum of fifteen lectures must be included. 1 credit. Daily 11. First Session. M357.

181. **Current Political Problems.** A series designed for upper division students. Students may take any quarter without the preceding quarter or quarters, with the consent of the instructor. Second session. 3 credits. Daily 10. M355.

**POULTRY HUSBANDRY**

C. I. DRAPER, Professor; A. B. STEPHENSON, Assistant Professor.

1. **General Poultry.** Breeds, judging, incubation, brooding, feeding, marketing; designed to meet the needs of the students wishing a general knowledge of the poultry industry and the problems of production, and a foundation upon which other courses are built. 3 credits. Daily at 10. First session. L-305.


**PSYCHOLOGY**

ARDEN FRANDSEN, Professor; D. R. STONE, HEBER C. SHARP, Associate Professors; ROBERT L. EGBERT, Assistant Professor.

**Visiting Faculty**

53. **Elementary General Psychology.** General principles of human behavior and experience including: nature of personality; factors determining development; how we learn, observe, and think; motives of human conduct; dealing with people; and the maintenance of personal efficiency and mental health. Intended for Lower Division students in all schools of the College. 5 credits. Both sessions. Daily 8. M359.

102. **Educational Psychology.** A professional course for prospective high school teachers intended to increase understanding of personality and to develop greater insight into the conditions for effective learning. Applications to development in adolescence of both normal and deviate personalities, to provisions for individual differences, and to learning junior and senior high school subjects are emphasized. Prerequisite: General Psychology: 5 credits. Both sessions. M359. Daily 10.

105. **Child Psychology.** The roles of maturation, learning, and environmental conditions in the motor, mental, social and emotional development of children from birth to adolescence. Generalizations with respect to individual differences, emotions, motivation, how children learn, observe, and think are applied to understanding and guiding
SUMMER SESSION

children's behavior in home, school, and community. Prerequisite: General Psychology. 3 credits. First session. M358. Daily 8.

Frandsen

108. Educational Psychology for Elementary School Teachers. A study, from the points of view of psychological theory and research, of the aims, selection and sequence of content, methods of teaching, provisions for individual differences, and measurement of outcomes in the elementary school curriculum. Tool subjects are emphasized. Prerequisite: General Psychology. 2 credits. Daily 8. Second session. M358.

Frandsen

112. Applications of Statistics to Education and Psychology. An elementary study of the statistical procedures used in handling test scores in the schools and of the concepts needed to read current educational and psychological literature. Second session. 2 credits. M359. Daily 1.

Stone

181 or 281. Psychometrics Applied to Guidance, Adjustment Problems, and Remedial Teaching. For school counselors, personnel workers, social workers, and clinical psychologists. Consideration is given selection, evaluation, administration, interpretation, and practical uses of tests of intelligence, aptitudes, interests, personality and quality of personal and social adjustment. Prerequisites: General Psychology and Elementary Statistics. For seniors or graduate students. 5 credits. Both sessions. M359. Daily 9.

Frandsen

183 or 283. Theory and Practice of Counseling and Psychotherapy. In educational and vocational guidance, in improving school achievement and worker efficiency, and in treating problem of personal and social maladjustments, the uses of the following procedures are studied: Non-directive counseling; directed problem-solving interviewing; giving advice, assurance, persuasion, and information; and of controlled family, school, club or camp, community, and institutional environments. Prerequisite: General Psychology. First session. 3 credits. Daily 7. M359.

Egbert

161. Social Psychology. A study of the acquisition of personality or "self." The effect of society on the individual, and the individual's reciprocal effect on society is considered in terms of such topics as propaganda, institutional behavior, "social" neuroses, morale, leadership, membership, etc. Prerequisite: General Psychology. 1st session. 3 credits. Daily 1. M359.

Stone

SECRETARIAL SCIENCE

V. D. GARDNER, L. MARK NEUBERGER, Professors; INA DOTY, Assistant Professor; FLORIS OLSEN, Instructor; R. R. BROUGH, Special Lecturer.


Doty

75. First-Quarter Shorthand. For students who have had no previous training in shorthand; includes a study of the fundamentals of simplified Gregg shorthand. Emphasis on developing fluency in read-
ing and writing from shorthand plates. Both sessions. 3 credits. Daily 10. M305.

Doty and Olsen

86. First-Quarter Typewriting. For students who have had no previous training in typewriting. Designed to develop a thorough knowledge of the keyboard and to give practice in the use of mechanical features of the typewriter. Special attention to the developing of typewriting for personal use. First session. 1 credit. Daily 12. M306.

Doty


Olsen

94. Burroughs Calculator. Practice in addition, multiplication, subtraction, and division on Burroughs calculators and the application of the machine to various business computations such as percentages, discounts, prorating, decimal equivalents, and constants. Second session. 2 credits. Daily 11. M311.

Olsen

99. I.B.M. Machine Operation. Theory and practice in the application of the I.B.M. Machines to punch card accounting and statistical methods. Attention will be given to the latest techniques in sorting, tabulating, and summarizing of numerical data. First session. 2 credits. Daily 9 and 10. IBM room.

R. R. Brough


L. M. Neuberger

SOCIAL WORK

DON CARTER, EVELYN H. LEWIS, Assistant Professors.


Carter


Lewis


Lewis


Carter

SOCIOLOGY

R. WELLING ROSKELLEY, Professor; C. JAY SKIDMORE, Assistant Professor; THEREL R. BLACK, Instructor.

GLENN L. TAGGART, Visiting Professor

70. Principles of Sociology. The major propositions inherent in man's influence on other men and his being influenced by other men

130. Introduction to Cultural Anthropology. Treatment of the attitudes, ideas, behavior, basic personality organization, and material results of selected primitive and contemporary cultures. 3 credits. Daily 8. Second session. M353.

148. Rural Sociology in Latin America. An analysis of the basic principles of rural sociology operating in Latin America. 3 credit hours. Daily 1. F104.

160. Family Relations. The social-emotional development of the child in the family. Marital adjustment; social-cultural difference in family behavior; problems; ideological considerations. 3 credits. Daily 8. First session. M353.


162. Instructional Problems in Family Life Education. Methods, materials and content for teachers dealing with the social, emotional and cultural phases of Family Life Education. 3 credits. Daily 10. First session. M280.


### SPEECH AND DRAMA

CHESTER J. MYERS, Professor; REX E. ROBINSON, HAROLD I. HANSEN, Associate Professors; E. LEROI JONES, BURRELL F. HANSEN, Assistant Professors; GWENDELLA THORNLEY, STUART HARDMAN, WILLIAM R. HERRELL, Instructors.

1s. Public Speaking. Elementary training in Public Speaking. Includes training in daily speaking situations, voice improvement. Students attend class two hours each day—8 to 10. 5 hrs. credit. Both sessions. M204.

5s. Extempore Speech. Designed to meet the specific needs of professional people in the practice of their professions. Basic principles of effective speaking, with emphasis on composition and delivery of the forms of address of greatest interest to those for whom the course is provided. 3 credits. Daily 10. First session. M204.

p12-p112. Private Instruction. Individual attention given in private to particular needs of the student in an effort to eliminate personal defects, develop skill, and solve individual speech training and to all those who are majoring in speech. Special fee. Time and credit arranged.

18s-118s. Story Telling. The story as an educational factor; analysis and classification of typical stories with reference to each period of the child's development. Study of sources, adaptation of material, and
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actual practice in story telling. Consideration is given to stories of
western pioneer life. The work is designed to meet the needs of stu­
dent, teacher, recreational leader, church activity leader, librarian, and

24s-124s. Oral Interpretation; Lecture and Recital. Various literary
forms are studied for platform presentation. Reading from manuscript
and from memory. Preparation and presentation of public recital in

66-166. Practical Theatre Production. Designed for teachers, MIA
directors, recreation leaders, and Speech majors and minors. A course
covering the problems of play selection for high school and community,
casting, acting, directing, scenery, lighting, costume, make-up, and all
phases of theatre production. Students will participate in the produc­
tion of two UTAH STATE THEATRE summer presentations. Lecture and
laboratory approach will be utilized. Students may register for 2 to 9
credit hours. Class will meet daily at 1, and the remaining hours by
arrangement with the instructors. 2 to 9 credits. Daily 1, and by ar­
rangement with instructors. STUDIO THEATRE. First session. M203.

73-173. Speech Clinic. Application and discussion of methods ap­
plicated to speech correction in the clinic. Training and practice through
the supervised handling of selected cases. Students who have had one
quarter of experience are allowed to participate in extension clinics.
Prerequisite or corequisite, Speech 167. Consult the instructor for per­
mission to register. Time and credit arranged. First session. Jones

82s. Radio Speech. Analysis and development of the speech skills
and speech forms as applied to radio. Development of acceptable
standards of voice and articulation for radio presentation is emphasized.
Effective organization and presentation of the various speech types
utilized on the air—announcements, talks, program continuities, inter­
views round-tables—are included. 3 credits. Daily 9. First session.

107. Speech Hygiene. Techniques of normal speech and develop­
ment of normal and abnormal speech. Major consideration given pre­
vention and correction of speech abnormalities. Primarily designed to
satisfy speech hygiene needs of elementary school teachers. Recom­
mented for all secondary teachers but does not fulfill the speech
pathology requirement for Speech majors. 3 credits. Daily 9. First
session. M283.

171. Speech Pathology. Advanced course in speech correction.
Speech involvements of pathologies of the larynx, mouth, ears, and
brain. Disorders such as pathological voice defects, cleft palate, diffi­
culties in hearing and deafness, aphasia, and spastic speech receive
particular attention. Prerequisite: Speech 167. 3 credits. Daily 10.

181s. Radio Production. Study and studio practice in the problems
in directing and producing various kinds of broadcasts. Planning of
programs, casting and rehearsal procedures, coordination of technical
aspects of production, and problems in special studio effects are con­
sidered. Registration is limited to Juniors, Seniors, and graduate stu­

190. Problems in Speech and Theatre. Especially selected work,
individually assigned, handled, and directed in consultation with the
student. Special speech problems of merit and of mutual interest to
student and instructor are investigated and reported upon in this

201. Thesis. Prerequisite: Graduate standing. First session. Time and credit arranged. Myers and Staff

202. Seminar in Theatre. Prerequisite: Graduate standing. First session. Time and credit arranged. Herrell, Hansen and Staff

203. Seminar in Public Speaking. Prerequisite: Graduate standing. First session. Time and credit arranged. Robinson and Staff

204. Seminar in Interpretation. Prerequisite: Graduate standing. First session. Time and credit arranged. Myers and Staff

205. Seminar in Speech Science. Prerequisite: Graduate standing. First session. Time and credit arranged. Jones and Staff

206. Seminar in Radio. Prerequisite: graduate standing. Time and credit arranged. First session. B. Hansen and Staff

VEGETABLE CROPS

LEONARD H. POLLARD, Professor; J. CLARK BALLARD, Assistant Professor.

160. Special Problems. Time and credit arranged. Staff

210. Research and Thesis. Original research on vegetable crops and seed production or breeding problem for graduate students taking a major or minor in vegetable crops. One or more credits. Staff

215. Special Problems. Time and credit arranged. Staff

VETERINARY SCIENCE

WAYNE BINNS, Professor; M. L. MINER, Associate Professor; H. M. NIELSEN, Assistant Professor.

50. Artificial Insemination of Cattle. Outlined for training students in artificial insemination of cattle and to train technicians for doing insemination in the Artificial Breeding Associations in the state. Fulfills the requirements for the qualifications necessary for the student to be eligible to take the State Board Examination 3 credits. Daily 8 to 5. June 5th to 17th. First session. L207. Binns and Miner

200. Special Problems. Open to students majoring in some related field and who wish to study some particular phase of a disease in animals. Both sessions. Time and credit arranged. Rm. VS. Staff

210. Research. Outlining and conducting research on animal diseases. Both sessions. Time and credit arranged. Rm. VS. Staff

WELDING

ANTON B. KEMP, Instructor; RAWSON CHILD, Assistant Instructor.

97. Acetylene Welding. 3 credits. Time arranged. First session. A121. Kemp

94. Electric Welding. 3 credits. Time arranged. First session. A115. Kemp
WOODWORK AND BUILDING CONSTRUCTION

JOSEPH COULAM, Professor; CHARLES N. MERKLEY, Associate Professor; D. H. SWENSON, Instructor.

61, 62, 63. Joinery and Millwork. Basic training in hand tool and machine operations for students in Building Construction or for those who desire a working knowledge in wood for their own needs. The courses include a thorough study in the proper use, care and sharpening of hand tools, machine processes, safety measures, care and repair of machines, and sharpening of machine cutters. Assigned reading and application of mathematics to woodwork problems are integral parts of the course. 2-5 credits, first session. 2-4 credits, second session. Daily 7-10, 8-11, 2-5, A162, A116, A166. Coulam, Merkley, Swenson

67s. Woodwork for Ag. Students. Care and use of hand tools as well as the woodworking machines commonly found in Farm Mechanics shops. Projects in farm woodwork are built in connection with the course. Credit arranged. First session. Daily 2-5. A162. Coulam and Merkley

171, 172, 173. Cabinet Work. The design and construction of furniture and cabinets including a study of the woods suitable for furniture and cabinet building, wood turning, inlaying, wood carving, and types of wood finishing. Projects are built in fine furniture and cabinets which include inlaying, overlaying, and carving. Prerequisites: W.W. 61, 62, 63. 2-5 credits, first session. 2-4 credits, second session. Daily 8-11, 2-5. A116, A162, A166. Coulam, Merkley, and Swenson

ZOOLOGY

DATUS M. HAMMOND, Professor; J. S. STANFORD, Associate Professor; M. H. GUNNELL, Assistant Professor.

1. Principles of Biology. Basic principles of life as illustrated in plants and animals, with emphasis on concepts of fundamental importance, including organization of living things, energy relationships, growth, relation to environment, kinds of living things, reproduction, development, inheritance, and evolution. For lower division students, except those who elect Botany 24, 25, or Zoology 2 or 3 and 4. 5 credits. Daily 7-9. First session. M-225. Gunnell

2. General Zoology. A survey of the more important groups of animals, including the organization, behavior, reproduction, classification and relationships of each group. The basic principles of greatest importance in Zoology receive consideration. 5 credits. Both sessions. Lecture M.W.F. 1 M225 Lab M.W. 2-5. M230. Stanford

123. Natural History of Animals. The identification, natural history of habits, food, distribution and other features of the more common Utah animals. Also, methods of collection and preparation of specimens for study, display and storage. Major consideration given to insects, birds, and mammals. A considerable amount of laboratory time is spent in making observations in the field, and some longer field trips are taken. Prerequisite: Zoo. 1, 2 or 3 and 4. Two lectures T.TH. M225 1, two labs T.Th. 2-5. M230. 4 credits. Both sessions. Stanford

131 or 231. Organic Evolution. A critical study of the facts of evolution as obtained from a consideration of comparative anatomy, embryology, geographical distribution, blood tests, and other fields upon
which the doctrine of evolution is based. Factors causing evolution are considered and discussions undertaken on other bodies of related thought. Prerequisite: Zoology 1 or 2, or 3 and 4, 111 or 112 recommended. First session. 3 credits. Daily 8-9. Room M230.

201. **Special Problems, Zoology.** The student who wishes to engage in some line of original research and is qualified to do so may elect and study some topic of Zoology. Open to undergraduates only by special arrangement with the department. Either or both sessions. Credit and time arranged.

240. **Research and Thesis, Zoology.** Research connected with problem undertaken for partial fulfillment of requirement for Master of Science degree. Either or both sessions. Credit and time arranged.

**APPLICATION FOR SUMMER SESSION HOUSING RESERVATION**

**Utah State Agricultural College**

Instructions: Print or use typewriter. A deposit of $5.00 or $10.00 must accompany this application if you wish a place reserved. In the event that you are unable to come, notify us by June 5 and a refund will be granted.

Applicant's full name ___________________________ Sex __________ Date __________

Present Address ___________________________ Street __________ City __________ State __________ Phone __________

Applicant's year in college __________ Age __________ Marital Status __________

If married state number in family group ___________________________

Dates of period for which applying: From __________ 19__ to __________ 19__

Housing desired: 1st choice ___________________________ 2nd ___________________________ 3rd ___________________________

Check for $5 or $10 enclosed __________ Money order enclosed __________

I am not including any money but I am planning to attend ___________________________

I plan to arrive on (date) ___________________________

Mail to: College Housing Manager
Utah State Agricultural College
Logan, Utah

Applicant's signature ___________________________

Registration procedures at the College are made more convenient for all concerned if the student submits an application in advance. Please send in the form below at your earliest convenience.
**U.S.A.C. REQUEST FOR REGISTRATION MATERIALS**

To the Registrar: ____________________________ Date ____________

I am tentatively planning to enroll in the 1951 Summer Quarter. Please prepare registration materials for me. I expect to attend the session beginning ____________________________.

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Previously enrolled at U.S.A.C.? Yes [ ]; No [ ]; Residence [ ].

Extension [ ]; Correspondence [ ].

First quarter and year _______ Last quarter and year _______.

Student No., if assigned _______. Male [ ]; Female [ ].

Single [ ]; Married [ ]. Citizen of U.S.A.? Yes [ ]; No [ ].

Date of birth _______. High school last attended _______.

City and State __________________________

Other colleges attended, with location __________________________
Nature laid the foundation

for a lovely campus at Utah State. Scenes like the above, looking south from College Hill, are remembered by three generations of alumni members. The climate is generally cool in the summer time. Living quarters either on the campus or in near-by Logan are comfortable, while the educational facilities of the college: gymnasiums—classrooms—libraries—all combine to make an excellent educational climate for summer study.
Looking across the quad toward lofty Mount Logan and the rugged defile of Logan Canyon.