ANNOUNCEMENT
FOR THE
SUMMER SESSION
1946

First Term
June 10-July 13

Second Term
July 15-August 17
STATEMENT OF MAILING PRIVILEGE

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UNIVERSITY OF ARIZONA CAMPUS
APPLICATION FOR RESIDENCE-HALL ACCOMMODATION

To facilitate making reservations and to promote congeniality in assignment, each student wishing to occupy a room in one of the residence halls must file an application.

Mr.  
Miss  
Name: Mrs.__________________________________________ Age__________  
(Last name first)  

Permanent Address: ____________________________________________  
(Street) (City) (State)  

Race:________ Nationality:________ Church preference:________  

Is your application for First Term?________ Second Term?________ Both?________  

Is your application for double occupancy?________ Single occupancy?________  

Choice of residence hall (women): Gila________ Maricopa________  

Choice of room: (1)________, (2)________ Choice of roommate:________  

Classification:__________________________________________  
Fr. Soph. Junior Senior Graduate Other  

I am enclosing (money order; check) for $10 for residence-hall room reservation and deposit in accordance with the above application.

Date:________________________ Signed:__________________________  

Applications accompanied by remittance payable to the University of Arizona should be sent to:

THE DEPARTMENT OF RESIDENCE  
University of Arizona  
Tucson, Arizona
OFFICERS OF THE SUMMER SESSION

OFFICERS OF ADMINISTRATION

ALFRED ATKINSON, D.Sc. ........................................ President of the University
JAMES WILLIS CLARSON, JR., PH.D. .................. Dean of the Summer Session
CORDELIA HAGERTY ........................................ Secretary to the Dean
CHARLES ZANER LESHER, M.A. ......................... Registrar
PATRICIA P. PAYLORE, M.A. ....................... Acting Librarian
MRS. HAZEL F. MACCREADY, M.A. .............. Dean of Women
ARTHUR HAMILTON OTIS, M.A. ...................... Dean of Men
HARRY T. HEALY, B.S. ...................................... Comptroller

COMMITTEE ON THE SUMMER SESSION

JAMES WILLIS CLARSON, JR., PH.D. .................. Chairman
Dean of the College of Education; Dean of the Summer Session
ROBERT L. NUGENT, PH.D. .......................... Dean of the College of Liberal Arts
CHARLES ZANER LESHER, M.A. ................ Registrar

OFFICERS OF INSTRUCTION

ALLEN, CHARLES A., PH.D. ...................................... English
Assistant Professor of English
BARTELS, EVELYN P., M.S. ................................. Bacteriology
Instructor in Bacteriology
BOLDYREFF, ALEXANDER W., PH.D. .............. Mathematics
Associate Professor of Mathematics
BROOKS, JOHN, PH.D. .......................................... Spanish
Professor of Spanish, and Head of the Department of Latin-American Cultures
BROWN, WILLIAM H., PH.D. .......................... Zoology
Assistant Professor of Zoology
BUFFA, JOSEPHINE, B.A. .................................... Spanish
Instructor in Spanish
CARRINGTON, HERBERT D., PH.D. ................ German
Professor of German
CLARSON, JAMES WILLIS, JR., PH.D. .............. Education
Dean of the College of Education; Dean of the Summer Session; Professor of Secondary Education
Cline, Russell Walter, Ph.D. ........................................ Agricultural Education
Professor of Agricultural Education, and Head of the Department of Agricultural and Home Economics Education

Conrad, Frederick A., Ph.D. ........................................ Sociology
Professor of Sociology, and Head of the Department

Dusenberry, Lois, B.S. ................................................... Physical Education for Women
Visiting Instructor in Physical Education for Women

Enke, Fred A., B.S. ..................................................... Physical Education for Men
Associate Professor of Physical Education for Men

Ewing, Russell C., Ph.D. .............................................. History
Assistant Professor of History

Garretson, Oliver K., Ph.D. ........................................... Education
Professor of Secondary Education, and High-School Visitor

Graesser, Roy F., Ph.D. ............................................... Mathematics
Professor of Mathematics, and Head of the Department

Gray, Laurence R., Ph.D. ............................................. Economics
Associate Professor of Economics

Hoffman, Louise M., M.A. ............................................ Spanish
Instructor in Spanish

Houghton, Neal Doyle, Ph.D. ........................................ Political Science
Professor of Political Science

Hubbard, Howard Archibald, Ph.D. ................................ History
Professor of History, and Head of the Department of History and Political Science

Jensen, Mildred R., M.A. ............................................. Home Economics
Assistant Professor of Home Economics

Johnson, B. Eleanor, Ph.D. .......................................... Home Economics
Professor of Home Economics, and Director of the School of Home Economics

Jones, Faye C., M.S. ..................................................... Home Economics Education
Associate Professor of Vocational Education in Home Economics

Kalis, Anita, M.A. ....................................................... Piano
Instructor in Piano

Kelley, Victor H., Ph.D. ............................................... Education
Associate Professor of Education, and Director of Appointments

Larson, Emil Leonard, Ph.D. ........................................ Education
Professor of Education

Lynn, Klonda, Ph.D. ..................................................... Speech
Associate Professor of Speech

Mattingly, Alethea E., M.A. ......................................... Speech
Associate Professor of Speech

Mewborn, A. Boyd, Ph.D. ............................................ Mathematics
Assistant Professor of Mathematics

Morgan, Florence Humphreys, M.A. ............................ English
Assistant Professor of English

Murphy, Nina L., M.A. ............................................... Physical Education for Women
Visiting Instructor in Physical Education for Women

Nelson, Glenn H., Ph.D. ............................................. Education
Assistant Professor of Education
NICHOLSON, HELEN SCHENCK, PH.D. ........................................... Spanish
Professor of Spanish

O'CONNOR, ROBERT ............................................................ Piano
Assistant Professor of Piano

PARKER, KITTIE F., PH.D. .................................................... Botany
Instructor in Botany

PILGRIM, MARY, M.S. ............................................................ Physical Education for Women
Instructor in Physical Education for Women

QUINN, ROBERT M., B.A. ...................................................... Art
Instructor in Art

REECE, SARA MASON .......................................................... Voice
Assistant Professor of Voice

RHODES, HERBERT D., PH.D. ................................................ Chemistry
Assistant Professor of Chemistry

ROBERTS, LATHROP EMERSON, PH.D. ..................................... Chemistry
Professor of Chemistry

ROY, FRANCIS A., PH.D. ...................................................... French
Associate Professor of French

SANDS, LILA, PH.D. ............................................................. Chemistry
Professor of Chemistry

SCHMIDT, ANDREW BECKER, A.M. .......................................... Economics
Professor of Economics, and Acting Head of the Department

SCHMITZ, FREDERICK JOSEPH, PH.D. ................................. German
Assistant Professor of German

SIMLEY, OLE ANDREW, PH.D. ............................................... Psychology
Professor of Psychology

SMITH, VICTOR C., PH.D. ..................................................... Education
Visiting Professor of Education

SNYDER, MRS. HARTLEY D., B.S. ........................................... Music Education
Visiting Instructor in Music Education

STEVESON, NORRIS J., B.A. ................................................... Physical Education for Men
Assistant Professor of Physical Education for Men

TUCKER, WILLIAM JOHN, PH.D. ............................................. English
Professor of English

WALKER, JOHN FRANKLIN, PH.D. ........................................... Education
Professor of Educational Psychology, and Dean of the Graduate College

WATERS, ROLLAND HAYS, PH.D. ............................................ Psychology
Visiting Professor of Psychology

WEBB, DONALD, PH.D. ........................................................ Mathematics
Visiting Assistant Professor of Mathematics

WINTHER, SOPHUS, PH.D. .................................................... English
Visiting Professor of English
UNIVERSITY OF ARIZONA
SUMMER SESSION, 1946

LOCATION

The University of Arizona conducts its Summer Session on the University campus at Tucson.

Tucson has an altitude of 2,400 feet. It lies in a broad valley surrounded by rugged mountains that constitute a setting of unsurpassed beauty. The campus itself with its masses of common and exotic trees, shrubs, and cacti is a veritable park of unique character. It is about a mile from the business center of the city, with which it is connected by bus service and excellent paved streets.

CALENDAR OF THE SUMMER SESSION

The Summer Session is made up of two terms of 5 weeks each. Classes will meet 5 days a week, a 2-unit lecture course requiring 5 clock hours a week per term. Laboratory periods are 3 hours. Registration will be held on the first day of each term. A late registration fee of $2 will be charged in connection with registration after that day. Registration for credit will not be granted after Monday, June 17, for the First Term, or after Monday, July 22, for the Second Term.

The calendar follows:

June 9, Sunday, 8 A.M. Residence halls open
June 10, Monday Registration for First Term
June 11, Tuesday Classwork begins
July 4, Thursday Independence Day: a holiday
July 12, Friday Examinations for the First Term begin
July 13, Saturday First Term ends
July 15, Monday Registration for the Second Term
July 16, Tuesday Classwork begins
Aug. 16, Friday Examinations for the Second Term begin
Aug. 17, Saturday Second Term ends

SUMMER-SESSION COURSES

The courses of the Summer Session are designed to meet the needs of the following classes of students:

1. Regular students of this or other institutions.
2. Graduate students who are unable to attend during the regular academic year or those who wish to continue their courses or research.
3. School administrators and teachers who desire advanced instruction in academic or professional work looking toward advanced degrees or renewal of certificates or who wish to satisfy requirements of the various states and accrediting associations.
4. Prospective teachers desiring to meet certification requirements for all grades above the kindergarten.
5. Students who desire to avail themselves of cultural or professional courses.
The Summer-Session courses will be offered through the following departments and divisions:

- Agricultural Education
- Agricultural Economics
- Art
- Bacteriology
- Botany
- Business Administration
- Chemistry
- Music Education
- Music Theory
- Physical Education
- Piano
- Political Science
- Psychology
- Sociology
- Spanish
- Speech
- Voice
- Zoology

ARIZONA STATE MUSEUM

The State Museum, established by law as an integral part of the State University, is maintained as an educational factor in the institution and the state. Its archaeological collections emphasize the conditions and the achievements of the ancient cave, cliff, and pueblo peoples of the Southwest, and its ethnological collections present the manufactured products of the various Indian tribes. Its natural history collections show the bird life of the state and present many other forms of animal existence. The Museum is open to the public each day.

LIVING ACCOMMODATIONS

Residence accommodations for both men and women are provided on the campus. Gila Hall will be used for women and Yavapai Hall for men. Additional halls will be opened if the need arises. Rooms are uniformly furnished with tables, dressers, and chairs. Beds, mattresses, pillows, and bed linens are provided, but students must provide their own blankets, towels, laundry bags, and other necessities. The laundering of all bed linen is cared for by the University. Students are advised to provide a warm blanket for the cooler nights. Students may reserve rooms in the residence halls by filing applications with the Department of Residence. A convenient blank is inserted for this purpose on page 3.

Women students.—Gila Hall is the newest of the four women's residence halls. It represents the latest in construction and facilities. Running water in every room, an electric hair dryer, and a laundry and ironing room on every floor, and elevators are modern conveniences provided to meet the needs of students. Sun decks, a spacious lounge, and an inclosed patio with barbecue pit add much to the pleasure of group life.

During the Summer Session the residence halls are open to both graduate and undergraduate students. All undergraduate women not living at home are required to live in the residence hall unless exception is made by the Dean of Women before or at registration. All residence arrangements must be approved by the Dean of Women at the time of registration and may not be changed without her permission.

Men students.—Yavapai Hall, recently completed men's residence hall, is modern in every respect.

Married students.—Information concerning housing facilities for married couples may be secured through the Department of Residence. Because of the crowded conditions in and about the city, desirable housing is difficult to obtain off the campus. Married
couples may, however, secure separate accommodations at the residence halls for men and for women, respectively.

Only registered students may use the residence halls.

ADMISSION TO THE SUMMER SESSION

The general rules and regulations of the University relating to admission to the University for credit apply to the Summer Session.

Regular students of the University of Arizona in good standing are admitted as at any other time.

Prospective freshmen should file with the Registrar a complete, official transcript of high-school credits, with a statement of graduation.

Students coming from other universities and colleges must present to the Registrar evidence that they are in good standing. Those who propose to become candidates for a degree at the University of Arizona, or who intend to continue in the fall semester must file a complete transcript of record.

Graduate students seeking graduate credit must file evidence of having graduated from an approved university or college.

Other students eligible to enter the University will be permitted to pursue such courses as they are qualified to carry.

All students except the first group above should apply to the Registrar for appropriate admission blanks.

NOTE: Admission to the Summer Session does not imply priority of admission in the fall semester.

ACADEMIC CREDIT

The Summer Session is an integral part of the regular University organization, with similar standards of academic accomplishment. The courses are of the same character as those offered during the regular academic year. Credit obtained is fully recognized toward the various degrees which the University confers. All Summer-Session work is counted as work in residence. The maximum number of units for which students may register regularly for credit is 12 semester hours for the 10-week session or 6 semester hours for either 5-week term. This necessitates the intensive study of a few subjects at a time. Registration may not be changed after the first week of each term except by approval of the Dean of the Summer Session.

Students who receive failing grades in 50 per cent of the total number of units for which they were registered during the Summer Session are subject to denial of registration in the first semester of the next academic year.

EXPENSES AND FEES

As the University is unable to extend credit, it is essential that all students have sufficient funds on entering to defray their immediate expenses.

Tuition.—The tuition fee required of students registering for the normal student load of 6 semester hours and desiring credit is $25 for either 5-week term. There is no nonresident fee for out-of-state students. Students registering for 5 units or less pay a tuition fee of $5 per unit, with a minimum fee of $10. When, under extraordinary circumstances, students are permitted to register for more than 6
units, an additional fee of $5 per unit is charged for the excess registration. The tuition fee for registration for thesis only is $5. For registration after the first day of the term a late registration fee of $2 is charged. The tuition fee for those attending classes without credit (auditors) is $10 for either term. The fee for courses audited in addition to those taken for credit is $2.50 per unit. For students registering for 6 or fewer units of credit, the maximum cost for both credit and audited courses is $25. Each student before attending classes must obtain from the Registrar’s office a certificate of registration showing that all fees have been paid and that the student is entitled to enter upon his classwork.

Physical education courses.—Students registering for courses in physical education (except theory) pay a locker and towel fee of $2. One dollar of this fee is returnable if there are no charges against the student.

Piano and voice.—For individual instruction in piano or voice a fee is charged in addition to the regular tuition fee, as follows: for two 1/2-hour lessons a week for 5 weeks the fee is $20, with 1 unit of credit. For four 1/2-hour lessons a week for 5 weeks the fee is $30 with 2 units of credit. The rental fee for practice pianos is: for 1 hour per day, 5 weeks, $1.50; for 2 hours per day, 5 weeks, $2.

Laboratory and material fees.—In certain laboratory courses fees are required to cover the cost of materials and of breakage. Statements of the amounts of such fees are found in the descriptions of the courses.

Residence halls.—Rooms in both the men’s and women’s residence halls may be obtained for $12.50 per term, per person, two in a room. To the extent that rooms are available, single occupancy will cost $20 per term, per person.

Board.—Excellent meals at reasonable rates may be secured at the University dining hall and at restaurants, tea rooms, and cafeteria just off the campus.

Trips.—For field trips required in connection with courses fees based on mileage will be charged.

Recreation.—To provide funds for recreational and social activities a nominal fee of 50 cents per term is charged.

SUMMARY OF FEES

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition (either 5-week term, 6 units)</td>
<td>$25.00</td>
</tr>
<tr>
<td>Tuition for auditors (either 5-week term)</td>
<td>$10.00</td>
</tr>
<tr>
<td>Tuition (courses audited in addition to credit courses, see page 13) per unit</td>
<td>$2.50</td>
</tr>
<tr>
<td>Tuition (5 units or less, minimum $10) per unit</td>
<td>$5.00</td>
</tr>
<tr>
<td>Tuition (registration for thesis only)</td>
<td>$5.00</td>
</tr>
<tr>
<td>Tuition (excess registration) per unit</td>
<td>$5.00</td>
</tr>
<tr>
<td>Piano, organ, and voice (individual instruction)</td>
<td>$2.00</td>
</tr>
<tr>
<td>(1 returnable if there are no charges)</td>
<td></td>
</tr>
<tr>
<td>Courses in physical education (except theory)</td>
<td>$2.00</td>
</tr>
<tr>
<td>(1 returnable if there are no charges)</td>
<td></td>
</tr>
<tr>
<td>Laboratory and materials (see course announcements)</td>
<td></td>
</tr>
<tr>
<td>Field trips (based on mileage)</td>
<td></td>
</tr>
<tr>
<td>Room in residence hall (term in advance)</td>
<td>$12.50</td>
</tr>
<tr>
<td>(Includes furnishing and laundering of bed linens)</td>
<td>$20.00</td>
</tr>
<tr>
<td>Room deposit</td>
<td>$10.00</td>
</tr>
<tr>
<td>Recreation</td>
<td>$.50</td>
</tr>
<tr>
<td>(Returnable if there are no charges)</td>
<td></td>
</tr>
</tbody>
</table>

Return of fees.—Students withdrawing from the University during the first week of either term (June 10 to June 17, inclusive, and July
Students changing their programs during the first week will receive a corresponding adjustment of fees. After the first week no fees of any kind except room and breakage deposits and half the locker fee will be returnable. Room reservation deposits will not be returned unless notice of cancellation reaches the Department of Residence by June 8.

PROJECTED REGISTRATION

Students who have regularly registered for a full course of 12 semester hours of credit during the current summer and have demonstrated their ability to do independent work may be permitted to enroll for a maximum of 3 semester hours of work to be done in absentia. Work thus undertaken must be in the nature of an individual problem. The student must outline the problem and secure the written approval of the instructor under whose direction he will do the work and the approval of the Dean of the Summer Session. The approved statement of the problem and the outline must be filed in the office of the Dean of the Summer Session not later than Saturday, August 10. The student must complete the work before the beginning of the Summer Session of 1947. Work done under projected registration will carry the course number 300 and will be accepted for residence credit. Graduate credit will be granted under the conditions outlined below. There is no additional charge for this privilege.

GRADUATE STUDY AND ADVANCED DEGREES

The University of Arizona Summer Session offers excellent opportunity for graduate study. Several of the departments of the University have provided for individual research in their special fields. Such work is listed under the respective departments. Students who wish to pursue any of these courses must obtain the consent of the respective instructors before registering for the courses.

In certain departments provision is made for teachers in service and others who are unable to attend the University during the regular year to complete the requirements for the master's degree by attendance at Summer Sessions only.

Registration for graduate credit is restricted to students holding the bachelor's degree from an approved school and, through petition to the Graduate Study Committee, to qualified Seniors who have almost completed the requirements for the bachelor's degree. Every student registering for graduate work must give evidence of having not less than 12 semester hours of undergraduate credit basic to the graduate work.

All courses numbered from 200 to 299 are definitely organized as graduate courses and carry graduate credit. Certain courses numbered from 100 to 199, designated by the letter G following the title, may be taken for graduate credit. Since graduate credit implies intellectual accomplishment at a higher level than that usually demanded of undergraduate students, to receive graduate credit a student must receive a grade of not less than 3 in the courses taken, and the average of the grades in all courses offered toward an advanced degree must be 2 or better.

All students registering in the Graduate College of the University of Arizona for the first time, must fill out and file with the Dean
appropriate admission forms. Students registering with the expectation of becoming candidates for an advanced degree should read carefully, in the general catalogue of the University of Arizona, the regulations governing the granting of that degree. At some time during the first 2 weeks of residence they should check concerning requirements at the office of the Graduate College, Room 114A, Engineering building.

Candidates for the master's degree who expect to complete their work for the degree during the Summer Session of 1946 should have their theses completed and approved by the departments concerned as early as possible. Theses in final form must be presented at or before the oral examination. All oral examinations must be taken not later than Tuesday, August 13. Written examinations, when given, must precede the oral by not less than 7 days.

CANDIDATES FOR DEGREES

All candidates for degrees who expect to complete their work for a degree at the end of either term must file an application during the first week of the term. Blanks are available at the Registrar's office.

TEACHERS' CERTIFICATES

One of the important functions of the University is the preparation of teachers. All the resources of the University are available for this work.

Secondary certificates are granted to the holders of the bachelor's degree from an accredited university or college authorized to prepare secondary-school teachers who present, in addition, evidence of the satisfactory completion of not less than 30 semester hours of graduate work at the University of Arizona or at other accredited institutions.

Pre-Secondary certificates entitle the holders to qualify for the regular Secondary certificate by in-service preparation while they are teaching. Such certificates have a preliminary requirement of 6 semester hours of graduate work.

Elementary certificates are granted to holders of the bachelor's degree from an accredited university or other teacher-preparation institution authorized to prepare elementary-school teachers.

Teachers now holding valid Arizona secondary or elementary certificates based on lower requirements have until September 1, 1950, to qualify.

Elementary and secondary certificates are valid for 4 years. They are renewable any number of times for periods of 6 years, upon presentation of evidence that the holder has, during the life of the certificate, completed 4 years of successful teaching and has carried to completion satisfactorily 5 semester hours of approved professional work at an accredited school or 10 semester hours when the teaching experience has been deficient. For the initial renewal 2 years' teaching and 5 semester hours are required.

ADMINISTRATIVE CERTIFICATE

Administrative certificates are granted upon evidence of at least 3 years of successful teaching experience, eligibility for an elementary or a secondary certificate, and 15 semester hours of education in
addition to and after securing the baccalaureate degree, devoted to school organization, administration, and supervision. The certificate is required of any administrator in charge of a school or school system with five or more teachers.

APPLICATION FOR CERTIFICATES

All persons applying for certificates authorizing them to become superintendents (or principals) or teachers in the public schools and colleges of this state must, in addition to existing requirements, take a course in the provisions and principles of the Constitution of the United States and of this state. Candidates for certificates may satisfy this requirement by taking the course, Political Science 100.

Certificates for teachers and school administrators are not granted automatically; formal application must be made. As considerable time is sometimes required to secure the necessary data, candidates should file the application early in the term in which they expect to qualify. Necessary blanks and detailed information relating to teachers' and administrative certificates may be secured at the office of the Dean of the College of Education.

ACCELERATED PROGRAMS

Entering Freshmen may speed up their college work by starting in the summer. There will be a broad choice of required and elective courses. Sophomores, Juniors, and Seniors will find many courses available to enable them to accelerate their programs.

SPECIAL FEATURES

New courses.—In meeting and anticipating advanced needs and interests, the Summer Session each year offers new courses in several departments. This year new courses will be offered by resident professors in bacteriology, economics, and English. Courses in physical education for men are being restored to the Summer-Session program.

The teaching of science.—Of particular interest and value to the elementary-school teachers is a new course in the teaching of science based on the science texts adopted by the State Board. The instructor is a specialist in this field and is the author of texts in science for the elementary school.

For teachers of agriculture.—Intensive short courses in agricultural education will be available (June 10 to June 25 and June 26 to July 13).

Spanish.—Tucson is unexcelled in the United States in the appropriateness of its setting for the study of Spanish. One cannot walk through the main streets without hearing it spoken; on the shop windows one sees the familiar “Aquí se habla español” (Spanish is spoken here); the older part of the city is still essentially Spanish-American in character; and only 2 hours away by auto, train, or bus is Mexico itself, teeming with the characteristics of a different world. Courses for the beginner and the advanced student are offered during the session.

German.—Full-year beginning and advanced courses in German will be offered.
During the Summer Session a regular weekly program, including lectures, concerts, and other features, will be provided. Several dances are given during the summer.

Opportunities for diversion and recreation are numerous. Sabino Canyon, Bear Canyon, Fort Lowell, Picture Rocks, San Xavier Mission, and other places of interest near Tucson make possible many trips or picnic parties which students of the Summer Session may enjoy. For somewhat longer trips, Colossal Cave, White House Canyon in the Santa Rita Mountains, the Casa Grande Monument, the Tumacacori Mission, and the resorts of Soldiers’ Camp and Summerhaven on Mount Lemmon in the Santa Catalina Mountains afford excellent opportunities for week-end excursions. In the Santa Catalina Mountains, among the great pine trees there are many ideal camp sites where the atmosphere is invigorating and the surroundings stimulating to both the student and the lover of nature. The border city of Nogales, Sonora, within 2 hours’ drive from Tucson, presents a very colorful Old World atmosphere to the visitor. The University will endeavor to arrange trips and excursions to these points for those who wish to avail themselves of the service. A trip fee sufficient to cover costs of transportation will be charged.

There are excellent tennis courts and a large outdoor swimming pool on the campus. Swimming tags are obtained from the Cashier. A municipal golf course within easy reach of the University is available to the devotees of this popular form of sport. Bowling and dancing are always easily available.
COURSES OFFERED* IN THE 1946 SUMMER SESSION

AGRICULTURAL AND HOME ECONOMICS EDUCATION

Professor Cline (Head of the Department).
Associate Professor Jones.

AGRICULTURAL EDUCATION

190s. Problems in Teaching Vocational Agriculture. (2) G. Cline
Study and demonstration of new operative and managerial practices in agriculture. Organizing and conducting instruction on selected units with special reference to field work and use of the Job Instruction Training Procedure. Prerequisite, 199. Fee, $2. (June 10 to June 25, 3 hours daily to be arranged.)

208s. Supervised Practice in Vocational Agriculture. (2) Cline
Planning farming programs, including budgeting, financing, accounting and production practices. Organizing and supervising farming activities with special reference to present production demands. Prerequisite, 199. (June 26 to July 13, hours to be arranged.)

224s. Conducting Student Organizations. (2) Cline
Methods of organizing and conducting group activities with students of vocational agriculture, with special reference to problems of Future Farmer Chapters and the responsibilities of advisers. Prerequisite, 199. (June 26 to July 13, hours to be arranged.)

HOME ECONOMICS EDUCATION

198. Problems in Teaching Home Economics. (2) I. G. Jones
Administrative and curriculum problems, planning space and equipment for home economics departments, and adapting programs to meet the needs of special groups. Prerequisite, Education 197g. 11:40-12:40.

212s. Problems in Housing and Equipping Departments of Home Economics. (2) I. Jones
Plans and specifications for new and remodeled departments. Sources of equipment and the evaluation of same in terms of specifications and department budgets. Procedures and standards for arranging equipment and decorating rooms. (Students who expect to work on plans for their own schools should write to the instructor prior to May 20 in order that they may bring the necessary data.) 8:10-9:10.

299. Seminar in Home Economics Education. (2) I. Jones
Readings and study on current problems, including curriculum, administration, evaluation, and other phases of the program. Prerequisite, Education 139h. 10:30-11:30.

*Unless otherwise specified, all classes meet for 1 clock hour daily from Monday to Friday, inclusive.
The Arabic numerals in parentheses indicate the number of units of credit.
The Roman numerals indicate the term in which the course is offered. The letter "G" indicates that graduate credit is permissible.
Where prerequisites are given in terms of numbered courses, equivalents of these courses are acceptable.
The University reserves the right to withdraw any course for which there is an insufficient registration.
ART

Instructor Quinn.

1a-1b. Art and Design. (2-2) I-II. Quinn
Fundamental principles underlying all art. Practical training in water color. Laboratory fee, $1 each semester. 8:10-11:10.

2a-2b. Drawing. (2-2) I-II. Quinn
Beginning drawing from casts and still life; charcoal and pencil techniques. Laboratory fee, $1 each semester. 9:20-12:20.

7as-7bs. History and Appreciation of Art. (2-2) I-II. Quinn
The great art movements of the past, their influences and effects, with the study of the great leaders up to the time of the Italian Renaissance, 7:00-8:00.

BACTERIOLOGY

Instructor Bartels.

107. General Bacteriology. (4) I. Bartels
Fundamental facts of bacteriology. Characteristics of important groups of microorganisms studied in laboratory. Prerequisite, Chemistry 1b or 2b; recommended, Zoology 4 and Botany 1. Laboratory fee, $10. 8:10-9:10. (Lab. 9:20-12:20.)

187s. An Introduction to the Filterable Viruses. (2) I. G. Bartels
The nature of filterable viruses, techniques of cultivation, concentration, and purification. Consideration will be given to some of the more important virus diseases of man, lower animals, and plants. Prerequisites, Bacteriology 107 and one additional upper-division course in bacteriology or in a related field, Chemistry 103b or 40. 7:00-8:00.

BOTANY

Instructor Parker.

2. Survey of the Plant Kingdom. (4) I. Parker
A study of the plant groups with emphasis upon life history and relationships. Laboratory fee, $5. 8:10-9:10. (Lab. 9:20-12:20.)

3s. Plants of the Tucson Area. (2) I. Parker
A course in the identification of plants of the Tucson area. Consideration will be given to principles of plant classification. This course will not be substituted for Botany 4 in a sequence. Travel and laboratory fee, $2.50. 7:00-8:00.

BUSINESS ADMINISTRATION AND ECONOMICS

Professor Schmidt.
Associate Professor Gray.

6s. Introduction to Business. (2) II. Gray
A survey of the fundamental characteristics and functions of modern business. Not open to those who have had 171a-171b. 10:30-11:30.

1as-1bs. Introduction to Economics. (2-2) I-II. Schmidt-Gray
The first term is devoted to a study of methods of logical economic analysis and the derivation of fundamental principles—distinctly a tool course. The second term is devoted to application of methods of reasoning and principles to actual problems of economic life. 11:40-12:40.
108s. Industrial Relations. (2) II. G. Gray
A study of collective bargaining methods including legal aspects of labor contracts and some of the problems which arise out of operating under these contracts. 8:10-9:10.

124s. Postwar Economic Problems. (2) I. G. Schmidt
A study of the major economic problems of the United States during the reconstruction period: postwar labor, agriculture, economic controls, finance, and international economic relations. Prerequisite, 1b or 2b. 9:20-10:20.

192a, 192b. Economic Investigation. (2) I, II. G. Schmidt-Gray
An individually conducted research course. Open to seniors and graduates. (Hours to be arranged.)

(Educ.) Teaching the Social Studies. (2) I. Schmidt
(For description see Education 197fs.)

CHEMISTRY

Professors Roberts, Sands.
Assistant Professor Rhodes.

1a-1b. General Chemistry. (4-4) I-II. Roberts-Sands
Fundamental principles of chemistry. Properties of elements and compounds. Prerequisite, high-school chemistry. Laboratory fee, $5; breakage deposit, $2.50. 8:10-9:40. (Lab. 1:40-4:30 M. W. F.)

2a-2b. Introductory General Chemistry. (4-4) I-II. Rhodes
Similar to 1a-1b but for students without credit in high-school chemistry. Laboratory fee, $5; breakage deposit, $2.50. 8:10-9:40. (Lab. 1:40-4:30 M. W. F.)

54. Elementary Quantitative Analysis. (3) I. Rhodes
The elementary principles of quantitative analysis illustrated by means of typical gravimetric and volumetric procedures. Prerequisite, 1b or 2b. Laboratory fee, $5; breakage deposit, $5. 10:30-11:30 M.T.Th.F. (Lab. 1:40-4:30 daily, M. to F.)

103a-103b. General Organic Chemistry. (4-4) I-II. G. Roberts-Sands
A thorough discussion of the general principles and theories of organic chemistry accompanied by the laboratory preparation and examination of numerous important organic compounds. Prerequisite, 1b or 2b. Laboratory fee, $6; breakage deposit, $2.50. 10:00-11:30. (Lab. 1:40-4:30 M. W. F.)

EDUCATION

Professors Clarson (Head of the Department), Garretson, Larson, Walker.
Visiting Professor Smith.
Associate Professor Kelley.
Assistant Professor Nelson.

105s. Personnel Guidance. (2) I. G. Nelson
The position of dean or adviser of girls or boys; its status and function; qualifications and training; the role of the teacher in personnel work. Introductory course for those who expect to specialize in student guidance. Prerequisites, 131 and Psychology 1a or equivalents. 9:20-10:20.
107s. Grade- and High-School Physical Education Programs. (2) I. G. Stevenson
Methods and purposes of teaching physical education, the equipment necessary, the proper setting, supervised practice of student leaders. Suggestions in lesson and program formation, organization, and administration. Applications of educational principles to physical education. Recommended for administrators in order to acquaint them with proper principles and practices in physical education. Prerequisites, 154 and 12 semester hours of physical education. 7:00-8:00.

112s. History of Education in the United States. (2) II. G. Nelson
The development of our educational system from colonial foundations to the present. The aim will be to bring about increased understanding and appreciation of the national system through authentic information as to its origin and development and the principles involved. 8:10-9:10.

117. Visual and Auditory Aids in Teaching. (2) I. G. Larson
Use and management of auditory and visual aids. Motion pictures, stereoscopes, slides, charts, blackboard technique, radio programs. Actual instruction in use of equipment. Prerequisite, 151; recommended, 121a or 134. 8:10-9:10.

121s. Elementary Curriculum and Methods. (2) I. G. Larson
Arithmetic. Education 151 must precede or accompany this course. 10:30-11:30.

121s. The Elementary School. (2) II. G. Larson
The purposes and curriculum of the elementary school. Available courses are studied and evaluated, and a defensible curriculum proposed. This course meets the certification requirement in the elementary curriculum. Prerequisite, 3 units in education. 9:20-10:20.

131s. The High School. (2) I. G. Garretson
The high school as an institution; historical development; aims, functions, and outcomes; the curriculum; relation to other divisions of the school system. Prerequisite, 3 units in education. 7:00-8:00.

134s. General High-School Methods. (2) II. G. Garretson
The actual problems of teaching with especial reference to the principles of educational psychology. Prerequisites, 151; recommended, 131. 9:20-10:20.

150s. Mental Hygiene. (2) I. G. Walker
The principles of mental hygiene and their application to personal and social needs. Prerequisite, 151. 10:30-11:30.

151s. Educational Psychology. (2) I. Smith
The study of the learning process with attention given to motivation, guidance, and control of children of school age. Prerequisite, Psychology 1a. This 2-unit course is not acceptable as a 3-unit prerequisite for advanced courses in Psychology. 11:40-12:40.

157s. Educational Tests and Measurements. (2) I. G. Smith
The principles underlying the making and using of informal objective examinations; practice in making and scoring such examinations; surveys of standard tests in the respective fields. Prerequisite, 151. 9:20-10:20.

161s. Public Relations for Teachers and Administrators. (2) I. G. Larson
The purposes, necessary organization, agencies, and criteria of good public relations; designed to develop the knowledge and techniques necessary for an effective program of public relations. For seniors and graduate students. Prerequisites for seniors, 6 semester hours in education. 9:20-10:20.
195s. Teaching Science in the Elementary School. (2) I. G. Smith
Designed to assist the elementary teacher (grades one to eight) in
meeting the needs of his pupils in understanding their environment.
It will include such specialized techniques of science instruction as
simple experiments and demonstrations; information on selection and use
of such instructional materials as apparatus, textbooks, and visual aids;
planning the science program; and evaluation of achievement. Neces-
sary scientific information. For seniors and graduates. Prerequisite,
151. 8:10-9:10.

197fs. Teaching the Social Studies. (2) I. Schmidt
Objectives of the social studies in junior and senior high schools;
curricula in the social studies; instructional techniques; subject or-
organization; texts and other aids; tests; special problems. Prerequisites,
134 and 12 units in the social studies. 8:10-9:10.

210s. Philosophy of Education. (2) I. Nelson
A critical study of the data which recent scientific research has
furnished with reference to the nature of the learning process; deter-
mination of the leading objectives in teaching. Open to seniors. Pre-
requisite for seniors, 6 units in education. 11:40-12:40.

214. Arizona State School System and School
Law. (2) II. Larson
The principles and problems of public education in Arizona. The
codes relating to schools and a comparison of this code with other
state codes and ideal codes. For seniors and graduates. Prerequisite
for seniors, 6 units in education. 10:30-11:30.

220s. Teaching the Spanish-speaking Child. (2) I. Kelley
An analysis of the problem created by the presence of Spanish-
speaking children in our public schools. The consideration of the first
year's work, the prereading stage, the introduction of reading, and
remedial work constitute the main problems of the course. Special
consideration will be given to the experimental work in this field
which is being conducted here and at other institutions. Prerequisites,
121a-121b. 9:20-10:20.

230s. Supervised Study. (2) II. Garretson
The philosophy and objectives of supervised study in the secondary
school and a critical evaluation of the procedures, techniques, and
plans available for the improvement and supervision of study in high
school. Prerequisite for seniors. 6 units in education. 10:30-11:30.

236bs. High-School Supervision. (2) II. Garretson
The principles and practices of supervision as they may be of prac-
tical use in the improvement of instruction at the secondary-school
level. For graduate students and teachers with one or more years of
experience. 7:00-8:00.

239. Modern Trends in High-School Procedures. (2) I. Garretson
Modern trends in the aims and techniques of presentation of the
major fields of subject matter at the secondary-school level. Each
student will be given the opportunity of intensive study of the de-
velopment and trends of the subject-matter field of his major interest.

251. Advanced Educational Psychology. (2) II. Nelson
An intensive study of some phases of educational psychology. The
problems studied will vary from year to year. May be repeated once
with different content. Prerequisites, Psychology 1a and 6 units in
education, including Education 151. 9:20-10:20.

254s. Statistical Methods in Education. (2) I. Walker
Elementary methods of dealing quantitatively with school data and
data resulting from experimental investigations. Required as part of
the graduate major in education. For seniors and graduates. Pre-
requisite for seniors, 6 units in education. 8:10-9:10.

271. School Finance. (2) II. Larson
Sources of school support, the economical and equitable distribution
of school funds, systems of accounting, financial records and reports.
Prerequisite for seniors, 6 units in education. 8:10-9:10.
290. Techniques in Educational Research. (2) II. Nelson
For advanced students majoring in education. Various methods of research; representative studies of each type. For seniors and graduates. Prerequisite for seniors, 6 units in education. Required of all graduates with education as a major. 11:40-12:40.

299. Seminar in Education. (2) I. Garretson
Current literature and selected topics and problems. For seniors and graduates. Prerequisite for seniors, 6 units in education. Required of all graduate students having education as a major or a minor. 10:30-11:30.

Individual Studies. I, II. Clarson
The Department makes available to undergraduate students opportunity to work individually in special fields of study through Special Problems (1 to 2); and to graduate students through Research (2) and Thesis (4). (Conference hours to be arranged.)

ENGLISH

Professors Tucker, Winther.
Assistant Professors Morgan, Allen.

Note: A course in Humanities or a survey course in English literature is prerequisite to all upper-division courses in literature.

1a-1b. Freshman Composition. (3-3) I, II. Morgan
The study and practice of good writing, with emphasis upon exposition. Short and long themes, collateral reading, conferences. Required of all freshmen. First term, 1a only; second term, 1b only. Classes will meet 1 1/2 hours daily, Monday through Friday. Students registering for 1a or 1b may register for only one other course. 8:10-9:40.

24b. American Literature. (2) II. Allen
From the Civil War to the present. Wide reading of both prose and poetry. 24b is not prerequisite to 24a. Not open to freshmen or, without special permission, to seniors. 9:20-10:20.

122s. The Critical Reading of Poetry. (2) I. G. Tucker
Reading for comprehension of meaning and appreciation of excellence. Analysis of the varieties and levels of meaning, and the principles of poetic form. Valuable to the general reader and the teacher. 11:40-12:40.

124s. Literature of the Southwest. (2) II. G. Allen
The last frontier in fact and fiction; the accounts of early travelers, the stock western, the true regional novel, poetry. Useful bibliography. 8:10-9:10.

129as. Matthew Arnold. (2) I. G. Winther
Poetry and prose of one of the most characteristic and influential literary men of the nineteenth century. Students who have credit for 129a or 129b in the regular session or for Browning or Tennyson in preceding summer sessions may obtain credit for this course also. 8:10-9:10.

130bs. The Beginnings of Naturalism. (2) I. G. Winther
The study of five novels: Jude the Obscure, Fathers and Sons, Madame Bovary, Germinal, and McTeague. Lectures on the basic concepts of Naturalism. Students who have credit for the novel course in the regular session or in the summer sessions of 1943 and 1945 may also register for this course. 10:30-11:30.
ANNOUNCEMENT FOR THE SUMMER SESSION

136s. The Irish Literary Renaissance. (2) I. G. Tucker
The rise of a national literature in Eire, its causes and results, its principal figures. 9:20-10:20.

160s. History of the English Language. (2) II. G. Allen
This course may be substituted for 238b by candidates for the M.A. who expect to do all of their course work for the degree in the summer sessions. 11:40-12:40.

215as. Literary Criticism. (2) I. Winther
A short course in critical theory, with its main emphasis on the philosophy of literature, beginning with Aristotle. 11:40-12:40.

240bs. The English Diarists. (2) I. Tucker
Evelyn and Pepys and the literature of self-revelation; their recording of the politics, science, drama, and social affairs in an interesting age. 8:10-9:10.

FRENCH

Associate Professor Roy.

1b. Elementary French. (4) I. Roy
Grammar, composition, oral practice, and reading. Credit toward graduation in 1a is allowed only after completion of 1b. The class meets 2 hours daily. 7:00-8:00 and 9:20-10:20.

125s. Masterpieces of French Literature in Translation. (2) I. G. Roy
A study of the main authors of French literature from Rabelais through the nineteenth century in English translations. No knowledge of French is required for this course. This course does not carry credit toward a French major or minor. Open to juniors, seniors, and graduate students. Prerequisite. Humanities or Survey of English Literature. 10:30-11:30.

GERMAN

Professor Carrington.
Assistant Professor Schmitz.

1as-1bs. First-Year German. (4-4) I-II. Schmitz
Grammar, pronunciation, class and collateral reading. Credit toward graduation in 1a is allowed only after completion of 1b. The class meets 2 hours daily. 8:10-9:10 and 10:30-11:30.

3as-3bs. Second-Year German. (4-4) I-II. Carrington
Grammar review, simple composition and conversation, class and collateral reading of modern literary texts. The class meets 2 hours daily. 9:20-10:20 and 11:40-12:40.

4a-4b. Reading Course. (2-2) I-II. Carrington
Intensive reading of standard literary works. Outside reading in the student's field of interest. 8:10-9:10.

5a-5b. Review Grammar and Composition. (2-2) I-II. Schmitz
Advanced grammar review. Training in writing and speaking simple German accurately. 11:40-12:40.
108a-108b. Training in Reading Scientific German
Texts. (2-2) I-II. Carrington-Schmitz
Individual reading programs in the student's field of specialization.
Weekly conferences. Open only to students majoring in German upon
consent of the instructor. Prerequisite, 3b. 108a is not prerequisite to
108b. (Conference hours to be arranged with each student.)

Independent Studies. (2) I, II. Staff
(Conference hours to be arranged.)

HISTORY AND POLITICAL SCIENCE

Professors Hubbard (Head of the Department), Houghton.
Assistant Professor Ewing.

105bs. The Nineteenth Century. (2) I. G. Hubbard
The Peace Congress of Vienna, attempts at concerted control, the
breakdown of the concert of Europe, and the rise of liberalism.

122. The Latin-American Republics. (2) II. G. Ewing
Progress toward stability, prosperity, and international recognition;
geography and resources; social, political, and financial situation.
10:30-11:30.

128s. The Southwest under Spain and Mexico. (2) II. G. Ewing
A history of Hispanic institutions and culture of the Southwest.

130bs. History of the Anglo-American West. (2) II. G. Ewing
A survey of the West from about 1783 to about 1890. Special em-
phasis upon the frontier, Indian affairs, and international relations.
7:00-8:00.

137s. Studies in the Far East. (2) I. G. Hubbard
Survey of the history of China and Japan; the battle for western
concessions; the development of imperialism. 7:00-8:00.

145s. The British Empire. (2) I. G. Hubbard
A study of the rise and development of the Empire, organization as
a whole together with the development of self-government within the
parts, and the study of forces bringing about changes. 10:30-11:30.

100s. National and State Constitutions. (2) I. Houghton
Devised to meet the state requirement for a teacher's certificate.
8:10-9:10.

Position of parties in American government. 10:30-11:30.

HOME ECONOMICS

Professor Johnson (Head of the Department).
Assistant Professor Jensen.

45. Costume Selection. (2) II. Jensen
Principles of design and color as they relate to dress and personal
appearance; assembling a wardrobe; clothing budgets. 7:00-8:00.
ANNOUNCEMENT FOR THE SUMMER SESSION

115abs. Home Furnishings. (4) II. Jensen
Color schemes for interiors; the choice of wall finishes, floor coverings, furniture, draperies and accessories; the arrangement of furniture; the remodeling of interiors with practical work in refinishing furniture and the making of window draperies and slipcovers. 8:10-9:10. (Lab. 9:20-12:20.)

137s. The Family. (2) I. G. Johnson
A survey of the family as a changing institution; and analysis of the problems of the modern family with emphasis on postwar problems. For men and women. 9:20-10:20.

146s. The Consumer and the Market. (2) I. G. Johnson
Consumer buying problems under postwar conditions. For men and women. 10:30-11:30.

HOME ECONOMICS EDUCATION
(See Agricultural and Home Economics Education.)

MATHEMATICS

Professor Graesser (Head of the Department).
Associate Professor Boldyreff.
Assistant Professor Mewborn.
Visiting Assistant Professor Webb.

10. Solid Geometry. (3) I. Staff
Not open to those who presented solid geometry for entrance. Prerequisite, 1 entrance credit in plane geometry. 8:10-9:40.

11s. Intermediate Algebra. (2) I. Staff
The third semester of high-school algebra. Prerequisite, 1 entrance credit in algebra. Students offering more than 1 entrance credit in algebra receive no college credit. Those offering 1 entrance credit in algebra receive either 1/2 entrance credit or 2 units of college credit but not both. This course may be followed by 20 but may not be taken concurrently. 7:00-8:00.

20. College Algebra. (3) I, II. Staff
Prescribed for all engineering courses. Prerequisite, 1 1/2 entrance credits in algebra. First Term: 10:30-12:00. Second Term: 8:10-9:40.

24. Plane Trigonometry. (2) I, II. Staff
Prescribed for all engineering courses. Prerequisite, 1 1/2 entrance credits in algebra and 1 entrance credit in geometry. 7:00-8:00.

25. Analytic Geometry. (4) II. Staff
Prescribed for all engineering courses. Prerequisite, 1 entrance credit in geometry, 20 or 22, and 24. The class meets 2 hours daily. 7:00-8:00 and 10:30-11:30.

69a-69b. Mathematics of Commerce. (2-2) I-II. Staff
Prescribed in the College of Business and Public Administration. Prerequisite, 1 entrance credit in algebra. 8:10-9:10.

81. Slide Rule. (1) II. Staff
Application of approved methods of calculating, including the use of the slide rule. Prerequisites, 20 or 22. May accompany 24 or may precede or accompany 25. 11:40-12:40 M. W. F.

95a-95b. Calculus. (4-4) I-II. Staff
Fundamental principles of the calculus with their applications to geometry, physics, and mechanics. Prerequisite, 25. The class meets 2 hours daily. 8:10-9:10 and 10:30-11:30.
MUSIC

Assistant Professors O’Connor, Reece.
Instructor Kalis.
Visiting Instructor Mrs. Snyder.

1a-1b. Music Appreciation. (2-2) I-II. Snyder
For students with no technical knowledge of music. The music of the various periods is studied in relationship to other arts; through aural training the attitude of a critical listener is created. Music 1a will be given both terms. 1a: First Term: 10:30-11:30; Second Term: 9:20-10:20; 1b: 10:30-11:30.

2a, 2b. Fundamentals of Music. (2) I, II. Snyder
Rudiments of theory and rhythm taught in relation to the piano keyboard. Students with no background in music register for 2a. Students who have had 2a or are able to play hymn tunes on the piano, register for 2b. Credit for these courses is not granted to music majors. 2a: 8:10-9:10; 2b: 7:00-8:00.

56a. Class Instruction in Voice. (2) I. Reece
10:30-11:30.

176. Elementary Music Education. (2) I, G. Snyder
Song singing, rhythmic sense development, listening lessons, music reading, and projects for grades 1 to 6. Prerequisites, la-1b, 2, and junior standing. Not for credit toward the Master of Music degree. 9:20-10:20.

PHYSICAL AND HEALTH EDUCATION FOR WOMEN

Instructor Pilgrim.
Visiting Instructors Dusenberry, Murphy.

82s. Play and Playgrounds. (2) II. Murphy
Theories of play; methods of organization, administration, and management of playgrounds; discussion of equipment; study of methods of producing games or play leaders. 10:30-11:30.

88. Camp Leadership. (2) I. Pilgrim

110s. Swimming and Lifesaving. (2) I, II. Pilgrim-Dusenberry
Students registered for swimming must also be registered in some other University course. Students will register for one of the following divisions upon recommendation of instructor. Physician’s certificate required. Locker fee, $2. First Term: 8:10-9:10; Second Term: 9:20-10:20.
A. Elementary swimming
B. Intermediate swimming
C. Advanced swimming and diving
D. Lifesaving (American Red Cross certification will be given upon completion of requirements.)
123s. Physical Education for Elementary- and Junior-High Schools. (2) II. Murphy
The theory and practice of activities which may be included in the physical education program of elementary- and junior-high schools. A study of the basic elements of the program and program planning. Locker fee, $2. 8:10-9:10.

153s. Health Direction. (2) I. Pilgrim

173s. Recreational Games. (2) II. Murphy
Practice and theory of coaching minor sports and modified activities such as archery, croquet, volleyball, badminton, deck tennis, horse-shoes, table tennis, shuffleboard, and bowling. (Also practical methods of making own equipment for school, community, and home recreation.) Locker fee, $2. 7:00-8:00.

PHYSICAL EDUCATION FOR MEN

Associate Professor Enke.
Assistant Professor Steverson.

181s. Playgrounds and Recreation. (2) I. Steverson
Course covers the steps in organization and the administrative procedure necessary for promoting public recreation. Emphasis placed on social recreation including party activities, hikes and outings, and modern western square dancing. Open to men and women. Course fee, $1. 10:30-11:30.

192s. Health Education. (2) I. G. Steverson
Objectives of the school health program; integration of health service, health supervision, and health instruction; health demonstrations; health examinations; rural school health; relation of school to outside health agencies; comparative study of health programs; control of contagious diseases. Open to men and women. 8:10-9:10.

194s. Athletic Coaching—Football. (2) I. Enke
Theory of coaching, strategy and tactics. Study of the different offenses and defenses. Ethics, sportsmanship, and fundamentals are emphasized. 11:40-12:40.

195s. Athletic Coaching—Basketball. (2) I. Enke

(Educ.) Grade- and High-School Physical Education Programs. (2) I. G. Steverson
(For description see Education 107s.)

PSYCHOLOGY

Professors Simley, Waters.

1as-1bs. Elementary Psychology. (2-2) I-II. Simley-Waters
Fundamental principles of human behavior. Applications of principles are stressed. These 2-unit courses will not be accepted in place of 3-unit prerequisites for later courses. 10:30-11:30.
22s. Applied Psychology. (2) I. Simley
Application of psychological principles to the following fields: vocational guidance and selection, personnel administration, industrial efficiency, advertising, salesmanship, education, law, medicine. Prerequisites, 1a-1b. 9:20-10:20.

113s. Developmental Psychology—The Child. (2) I. G. Simley
The principal changes in human beings from birth to adolescence. Physical, mental, emotional, and social aspects of development will be studied. Prerequisites, 1a, and 1b or Education 151. 7:00-8:00.

114s. Developmental Psychology—Adolescence. (2) II. G. Waters
The principal changes in human beings from the beginnings of adolescence to maturity. Problems of school, family, vocational, and social adjustment. Prerequisites, 1a, and 1b or Education 151. 7:00-8:00.

118s. Abnormal Psychology. (2) II. Waters
Forms of mental abnormality and deficiency. Interests of premedical and law students considered. Prerequisites, 1a, and 1b or Education 151. Field-trip fee, $3. 9:20-10:20.

SOCIOLoGY

Professor Conrad (Head of the Department).

81s. Introduction to Sociology. (2) I. Conrad
The nature, backgrounds, and problems of contemporary society. Elements of social theory. Prerequisite to upper-division courses. 7:00-8:00.

186. Charities and Social Work. (2) I. G. Conrad
Causes and problems of dependence; the methods of treatment used by public and private agencies; the principles, aims, and types of social work. 10:30-11:30.

191s. Urban Sociology. (2) I. G. Conrad
Analysis of the problems arising from the concentration of population and industry in the urban community. The rise and development of cities and metropolitan areas; factors in organization and reorganization; natural population areas; the growth of slums and blighted areas; decentralization and the future of cities. Can the supercity survive? Problems of control and planning for the postwar reconstruction of cities will be considered. Prerequisites, upper-division status and Sociology 81. 9:20-10:20.

SPANISH—LATIN-AMERICAN CULTURES

Professors Brooks (Head of the Department), Nicholson.
Instructors Buffa, Hoffman.

1a-1b. Elementary Spanish. (4-4) I-II. Nicholson-Hoffman
A beginning course that includes grammar essentials and translation; emphasizing especially accurate pronunciation and oral work. Credit toward graduation in 1a is allowed only after completion of 1b. The class meets 2 hours daily. 7:00-8:00 and 9:20-10:20.

3a-3b. Intermediate Spanish. (4-4) I-II. Brooks-Buffa
Introduction to systematic syntax accompanied by reading of modern books. Prerequisite, 1b or 2 years of high-school Spanish. The class meets 2 hours daily. 8:10-9:10 and 10:30-11:30.
13a-13b. Elementary Conversation. (2-2) I-II. Brooks-Buffa
Prerequisite, 1 year of college Spanish or its equivalent. 11:40-12:40.

14a. Elementary Composition. (2) II. Hoffman
Prerequisite, 3b. 10:30-11:30.

118s. Workshop in Latin-American Civilization. (2) I. Nicholson
Designed as a foundation for further study, the course will touch on
the history, political organization, art, music, and psychology of
the Latin-American countries. Cultural bibliographies will be com-
piled. Topics of interest in their special fields will be studied by indi-
vidual students. Knowledge of Spanish is desirable but not essential.
No credit toward the Spanish major. 10:30-11:30.

SPEECH

Associate Professors Mattingly, Lynn.

2as-2bs. Principles of Speech. (2-2) I-II. Mattingly-Lynn
The principles of effective speaking and their application in a
variety of occasions, both public and private. This course affords
training in thinking, emotional control, and the utilization of body,
voice, and language in developing basic speech skills of the grosser
sort. Assignments adapted to individual needs. Recording fee, $1.50
each term. 8:10-9:10.

5. Voice and Diction. (2) I, II. Mattingly-Lynn
The cultivation of a pleasant speaking voice and the bettering of
vocal conditions, in range and quality particularly. Study of vocal
faults, attention to careless speech, understanding of faults of others,
ear training. Word study and vocabulary building. Recording fee,
$1.50 (optional for those concurrently registered for 2a). First Term:
7:00-8:00; Second Term: 9:20-10:20.

137s. Impersonative Reading. (2) I. Mattingly
Training in mind, body, and voice. and development of understand-
ing, discernment, imagination, and mental and muscular adaptability
through varied types of dramatic literature. Special attention to mon-
ologue and dialect materials. Program presentation. 10:30-11:30.

172s. How to Improve the English Speech of Bilingual
Children. (2) II. Lynn
Analysis and methods of correcting dialectal forms used by children
of foreign-language background, with emphasis on Spanish-American
usage. Especially designed to aid elementary- and high-school teach-
ers in working with bilingual children. Prerequisite, Speech 2a or
teaching experience. 10:30-11:30.

182as-182bs. Advanced Problems in Speech.
(2-2) I-II. G. Mattingly-Lynn
Techniques and methods of research in speech; library, laboratory,
or independent research on an individual problem; critical evalua-
tions. (Conference hours to be arranged.)

ZOOLOGY

Assistant Professor Brown.

4. General Zoology. (4) I. Brown
An introduction to the structure, physiology, development and be-
behavior of animals. Together with 8, 44, or 45, it constitutes a year's
course. Laboratory fee, $5. 8:10-9:10. (Lab. 9:20-11:20.)
116. Heredity. (2) I. G. Brown
    The principles and problems of inheritance in plants and animals, including man. Prerequisite, 4 or Botany 1. 7:00-8:00.

Individual Studies. I. Brown
    The Department makes available to the undergraduate student opportunity to work individually in special fields of study through Independent Study, fee $1 per unit (2 to 4); and to graduate students through Research, fee $1 per unit (2 to 4). (Conference hours to be arranged.)