CORNELL UNIVERSITY THE SUMMER SESSION



Announcement of the

SUMMER SESSION

UNIVERSITY AND STATE SUMMER SCHOOLS

JULY 2-AUGUST 10

1945

PUBLISHED BY THE UNIVERSITY ITHACA, NEW YORK

CALENDAR

JULY 2, MONDAY Registration, 8:30 a.m.-12:30 p.m., 1:30 p.m.-4 p.m., Barton Hall. Fees are due for payment at the Treasurer's office, Morrill Hall.
JULY 3, TUESDAY Instruction begins at time and place announced for

Instruction begins at time and place announced for each course. Registration is continued at the Registrar's office. *Morrill Hall*.

JULY 6, FRIDAY

Last day for payment of fees at the Treasurer's office, which closes at 4 p.m., Morrill Hall.

Instruction continues on this Saturday.

JULY 7, SATURDAY

AUG. 9, THURSDAY Final examinations begin; schedule on page 19.

AUG. 10, FRIDAY Summer Session ends, 4 p.m.

SPECIAL COURSES

JUNE 25, MONDAY

First unit courses in Hotel Administration begin, 9 a.m., Martha Van Rensselaer Hall.

SUMMER SESSION OFFICE

The Summer Session office is located in room 251 Goldwin Smith Hall; the telephone of the office and the Assistant Director is 3331, extension 2044. The telephone of the Director is 3331, extension 2393. The office will be open from 8 a.m. to 4 p.m., daily except Saturday; on Saturday the office will close at 12 noon.

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[Entered as second-class matter, December 14, 1916, at the post office at Ithaca, New York, under the act of August 24, 1912.] CORNELL UNIVERSITY through its six-week Summer Session offers unusual opportunities for study at the graduate and undergraduate levels. Instruction is provided mainly by the faculties of the Graduate School; the Colleges of Arts and Sciences, Agriculture, and Home Economics; the School of Education; and the Department of Hotel Administration. The facilities of the University are available to Summer Session students: libraries, classrooms and laboratories, residence halls, dining rooms, and cafeterias; health and infirmary services; student union, playing fields, and recreational areas.

Programs and courses of instruction are planned with several groups in mind. Undergraduates may choose from a wide selection of courses in the humanities, history and the social sciences, and the natural sciences. Advanced courses, supplemented by seminars and informal study, also are offered in most fields. Workshops, seminars, and professional courses have been planned to meet the needs of teachers, supervisors, and administrators.

ADMISSION

Application for admission to the Summer Session of 1945 must be made on the special form printed on the last pages of this Announcement. In most cases the information called for on this form will be sufficient. Applicants just graduating from high school are admitted only if they are entering a college in the fall term, or if their proposed Summer Session work is appropriately related to some other program of work. Such applicants will therefore be required to fill out an additional form which will be mailed upon receipt of the application for admission. Undergraduates registered in institutions other than Cornell University will be required to submit evidence of good standing and approved programs of study before they are admitted, and other applicants may be asked to furnish additional information. **Applications should be filed as early as possible**, and late applicants who are admitted may unavoidably be delayed in registration. **A certificate of admission signed by the Director is a prerequisite for registration in the Summer Session**.

The work of the Summer Session is planned to put the facilities of the University at the disposal of those persons who can use them to good advantage and for serious purposes during the summer period. Admission, however, cannot be granted to persons inadequately trained for the work they propose, or whose records in Cornell University or elsewhere are unsatisfactory; neither will admission be granted to persons whose purposes seem inadequate or inappropriate or better served by other work at other institutions. All applications will be acted upon promptly, but early application is urged.

ADMISSION TO THE GRADUATE SCHOOL

GRADUATE SCHOOL A student planning to become a candidate for an advanced degree from Cornell University must also apply for admission to the Graduate School. For this, two requirements are

made: (1) the applicant must have received a baccalaureate degree from a college or university of recognized standing, or must have done work equiv-

alent to that required for such a degree; (2) as judged by his scholastic record, or otherwise, the applicant must show promise of ability to pursue advanced study and research.

A student who wishes to enter the Graduate School should file application for admission, together with all the required supporting credentials, in the Office of the Dean of the Graduate School by June 1 if possible and not later than June 20. Application must be made on the formal blanks obtainable from the office of the Graduate School, and must be accompanied by complete and official transcripts of the student's previous training.

Because of the time required to secure and evaluate transcripts and other records, a period of two to four weeks usually elapses between the receipt of an application and formal action upon it. Every effort will be made to render decisions promptly, and applicants can assist materially by making early applications.

Students planning to apply for admission to the Graduate School should read the section on the Graduate School beginning on page 8. Further information is given in the Announcement of the Graduate School, which will be sent by the Dean of the Graduate School upon request.

REGISTRATION

Registration for the Session of 1945 will take place on Monday, July 2, in Barton Hall; the hours for registration will be from 8:30 a.m. to 12:30 p.m. and from 1:30 p.m. to 4 p.m. Students are urged to register on this day. Advance registration, either in person or by mail, cannot be arranged.

Registration is required for admission to any of the exercises of the Summer Session. In addition, all women students must register with the Counselor of Students. Registration of automobiles to be driven in and about Ithaca by Summer Session students is also required.

REGISTRATION IN THE

GRADUATE SCHOOL Students who wish to obtain credit toward the advanced degrees of Cornell University for Summer

Session work must arrange for admission to the Graduate School by correspondence in advance. They will then, on registration day, register in the Graduate School. Students whose applications and credentials for admission to the Graduate School are received after June 7 but before June 20 may not be able to register in the Graduate School on registration day, July 2. They may register in the Summer Session on that day and, after consulting members of the faculty in their proposed fields of graduate study, begin at once their programs of work. They will register in the Graduate School in Morrill Hall immediately after receiving notice of favorable action on their applications.

GRADUATES NOT REGISTERING IN THE GRADUATE SCHOOL

Students registered in the Graduate Schools of other institutions and planning to obtain

credit toward the advanced degrees from those institutions by their Summer Session work do not register in the Graduate School. Before REGISTRATION

registering in the Summer Session they should arrange for the crediting of their Summer Session work by the institutions from which they plan to take the degrees. Other students who hold bachelors' degrees but are not candidates for advanced degrees also register in the Summer Session only.

PROGRAMS

Except by permission of the Director, all students are required to register for courses amounting to four semester hours as a minimum program. The normal program is six semester hours and students are advised against registering for more; the maximum program is eight semester hours.

Undergraduates are required to register for a program of six semester hours unless permission for a lighter program is granted by the Director. The program of a Summer Session student who is also registered in the Graduate School of Cornell University is determined by his special committee.

REGISTRATION

FOR ATTENDANCE Under certain circumstances teachers and other mature students, not candidates for degrees, may receive permission to register for some or all of their courses for attendance only. Students so registered are required to attend regularly and to perform the class work of the courses, but they will not be permitted to take the final examinations. They will receive no credit for these courses but may secure certificates of attendance in courses so registered for. Registration for attendance cannot be changed to registration for credit after the second week of the Session.

LATE

REGISTRATION Students reaching Ithaca on July 3 or later will register at the following times and places: all students, with the Registrar, at his office in Morrill Hall, between 9 a.m. and 4 p.m.; graduate students, also with the Dean of the Graduate School at his office in Morrill Hall, at the same hours; all women students, also with the Counselor of Students at I Sage Avenue, between 9 a.m. and 4 p.m.; owners and drivers of automobiles, also with the Campus Patrol Office, between 8:30 a.m. and 4:30 p.m. Graduate Students who expect to receive residence credit toward an advanced degree for Summer Session work should register with the Dean of the Graduate School within the first week of the Session.

CHANGES OF

REGISTRATION All changes of registration after Monday, July 2, must be made in the Summer Session office, 251 Goldwin Smith Hall. Except by permission of the Director, no changes of registration may be made after Friday, July 6.

AUDITORS

Admission to classrooms during the Summer Session is restricted to students registered for the Session. A student thus duly registered may occasionally visit any class; but if he wishes to attend regularly classes for which he is not registered, he must secure an auditor's permit. Such permits will be granted whenever the student can show a serious purpose in such attendance. Auditors are not required to take part in the work of the courses which they visit, and certificates of attendance cannot be issued to them.

Auditor's permits cannot be issued on registration day; they may be secured on Tuesday, July 3, and later, at the Summer Session office.

WITHDRAWAL FROM

THE SUMMER SESSION A student may arrange for withdrawal at any time by cancelling his registration at the Summer Session office, 251 Goldwin Smith Hall. In such cases, the Treasurer may refund a part of the tuition fee or cancel a part of the obligation that the student has incurred for tuition, provided the reason for the withdrawal is stated in writing and is satisfactory to the Treasurer and the Registrar. In such cases the student is required to pay twenty per cent of the term's tuition for each week or fraction of a week between the first registration day and the date of his certificate of withdrawal, **unless the withdrawal is made before noon on Thursday, July 5.**

ACADEMIC

CREDIT All courses offered in the Summer Session, excepting some of the unit courses of one or two weeks in length, are accepted for credit in one or more of the Schools and Colleges of the University, when taken by matriculated students in these Schools and Colleges. No student may receive credit for more than eight semester hours for work done in a single Summer Session.

UNDERGRADUATE AND

GRADUATE COURSES There is, in general, no sharp distinction at Cornell University between undergraduate and graduate courses. In this announcement each course is marked immediately after the title in one of three ways:

Undergraduate. These courses are intended primarily for undergraduates. Students registered in the Graduate School of Cornell University will not receive credit for these courses toward an advanced degree unless such credit is specifically recommended by the special committee in charge of their work.

Graduate. These courses are intended primarily for students who are candidates for advanced degrees, and for teachers and others who wish certification to accrediting agencies for work done at the graduate level. Undergraduates with adequate preparation may register for these courses only after receiving permission from the instructors in charge.

Undergraduate and graduate. These courses are open to graduates and advanced undergraduates. Graduates registering for these courses who are candidates for advanced degrees or who wish certification to accrediting agencies for work done at the graduate level must indicate on their registration blanks their intention to complete the course at the graduate level and must be prepared to do any additional work that may be required.

COLLEGE OF ARTS AND SCIENCES

To obtain credit towards the Bachelor of Arts degree for work done in a Cornell Summer Session, a student

must previously have filed with the University Director of Admissions credentials covering the entrance requirements of the College of Arts and Sciences. He should then, in advance of Summer Session registration, secure the Dean's approval of his selection of courses. The academic requirements for the degree of Bachelor of Arts are explained in detail in the Announcement of the College of Arts and Sciences.

The Summer Session records of students registered in the College of Arts and Sciences are reviewed by the usual standing committees of the College, and poor records in the Summer Session are liable to bring the same penalties as in the regular University session.

COLLEGE OF

ENGINEERING Students in the College of Engineering who desire to offer work done in the Summer Session toward requirements for graduation should consult the Director of the School in which they are regularly registered before registering in the Summer Session. Students not yet matriculated in the College of Engineering, but planning to enter it, may obtain information about its requirements by applying to the Secretary of the College of Engineering.

STATE COLLEGE

OF AGRICULTURE Students in the State College of Agriculture must consult with Dr. J. P. HERTEL, Secretary of the College, and must obtain his approval of the proposed program of courses if credit in that College is to be secured.

DEPARTMENT OF

HOTEL ADMINISTRATION Students in the Department of Hotel Administration who desire to offer work done in the Summer Session towards requirements for graduation should consult Professor MEEK of that department before registering in the Summer Session.

INSTITUTIONS OTHER THAN

CORNELL UNIVERSITY The foregoing regulations apply to undergraduate students matriculated at Cornell

University. Undergraduates enrolled in other institutions, before admission to the Summer Session, will submit a program of courses approved for credit by an officer of the institution in which they are candidates for a degree. On registration day they will register for the courses of this program, and changes may be made only by permission of the Director. At the end of the Session, an official transcript of the Summer Session record of each undergraduate student will be sent to the institution in which that student is registered as a candidate for a degree. The Cornell Summer Session can assume no responsibility for the use to be made of credits earned by students thus coming from other institutions. The transcripts mentioned above will show what courses have been taken, the amount of credit in semester hours, and the grades. CERTIFICATE OF

At the close of the Session transcripts of the records of all undergraduates enrolled in other institutions will be

sent to the registrars of those institutions; transcripts will also be furnished in the same way for those students admitted to other institutions for September entrance. Other Summer Session students may receive certificates of attendance or of work performed, with grades, upon request. Application for certificates should be made at least three days before the end of the Session, and the applicant must leave at the office of the Registrar a large-sized envelope stamped and directed to his home address. The certificate will then be forwarded by mail.

THE GRADUATE SCHOOL

APPLICATION FOR ADMISSION A student planning to apply for admission to the Graduate School should write at once to the Dean of the Graduate School for a copy of the Announcement of that School and for the blanks required for applications for admission. The Announcement gives full information about the advanced degrees granted by Cornell University, including the language requirements for admission and for some of the advanced degrees; residence and course requirements; and other information not given in the following sections.

Applications for admission to the Graduate School should be filed by June 1 if possible and not later than June 20. After admission to candidacy for a degree, the student may write in advance of the opening of the Session to professors whose courses he plans to take. In this way it is possible to secure advice with regard to major and minor subjects, or fields of concentration, and information about course requirements in specific fields, and to avoid delay and interruption of work at the opening of the Session.

REQUIREMENTS FOR

MASTERS' DEGREES The requirements for the degrees Master of Arts, Master of Science, and Master of Science in Agriculture consist of three parts: (1) a minimum period of residence; (2) completion of such courses and other work (under Plan A, including a thesis) as may be specified by a special committee selected by the student to direct his work; (3) competence in scholarship, tested by a final comprehensive examination.

RESIDENCE

REQUIREMENTS The minimum residence requirement for the Master's degrees mentioned above is two semesters of residence

at Cornell University. This minimum requirement may be satisfied by five Summer Sessions of six weeks, or one semester and three Summer Sessions of six weeks, at Cornell University. With some restrictions, residence credit to the amount of one Summer Session will be allowed for a succession of unit courses of two or three weeks in length taken in different summers. Candidates for these degrees who are in residence during Summer Sessions are also expected to continue their studies during the year under the direction of the chairman of the special committee in charge of their work.

SUBJECT MATTER

REQUIREMENTS The subject matter requirements for the Masters' degrees mentioned above may be satisfied in two ways.

Each student, when applying for admission to candidacy for a Master's degree, should indicate which of these two plans of work he wishes to follow:

PLAN A

The candidate selecting this plan chooses a major subject of rather limited scope (e.g., French Literature, American History, Botany, Physical Chemistry) to which he plans to devote the greater part of his time. He also selects a minor subject properly related to the major subject. He then selects from the faculty of the Graduate School a member to represent each of his subjects; these constitute his special committee, and the representative of the major subject acts as chairman. The candidate then files with the Dean of the Graduate School a statement of his major and minor subjects approved by the members of his special committee. This statement must be filed within one week after registration.

The candidate then and from time to time thereafter confers with the members of his special committee, and with their help outlines a program of work which meets the requirements for the degree he expects to earn. These requirements will include achievement in independent investigation supported by a thesis acceptable to the student's special committee. In addition to course examinations, the candidate is required to pass a final examination comprehending the thesis and the major and minor subjects.

PLAN B

The candidate selecting this plan chooses a field of concentration of broader scope (e.g., Biological Sciences, Social Studies, English, Foreign Languages, Home Economics), to which he plans to devote at least half of his time. He also selects a group of subjects within which he plans to distribute the remainder of his work. He then selects two members of the faculty to serve as his special committee. One of these, who is chairman of the committee, represents the field of concentration; the other may be chosen from either that field or some related field, depending on the candidate's program. The candidate then files with the Dean of the Graduate School a statement of his field of concentration approved by the members of his special committee. This statement must be filed within one week after registration. The candidate then and from time to time thereafter confers with his special committee, and with their help outlines a program of work which meets the requirements for the degree he expects to earn.

The subject matter requirements under this plan include the satisfactory completion of approved studies carrying a minimum of thirty semester hours of credit, of which approximately one half will be in the field of concentration and the rest will be variously distributed with the sanction of his special committee. Work acceptable within the field of concentration must be devoted in substantial part to studies requiring original investigation, organization, and criticism on the part of the student. The candidate is not required to present a formal thesis; but if he does not do so, he is required to complete an expository or critical essay, or a problem in research, to the satisfaction of his special committee. In addition to course examinations, the candidate is required to pass a final examination comprehending the field of concentration and the distributed studies.

REQUIREMENTS FOR THE DOCTOR'S DEGREE The requirements for the Doctor's degree include a reading knowledge of French and German, or

two other foreign languages approved by the student's committee and tested by a special examination. A major subject and two minor subjects are chosen, and a thesis is always required. The residence requirement for the Doctor's degree may, upon recommendation of the student's special committee, be fulfilled in part by attendance during the Summer Session. For this purpose, three six-week Summer Sessions will be regarded as the equivalent of one semester, and five six-week Summer Sessions as the equivalent of one year.

Candidates for the Doctor's degree should in all cases consult the *Announcement of the Graduate School* for a more complete statement of the requirements.

COMPLETION OF

REQUIREMENTS Candidates for advanced degrees who expect to complete requirements and to take their final examinations at the

end of a Summer Session should call at the office of the Graduate School not later than the third week of the Session for the necessary instructions and blanks.

REGISTRATION FOR

RESIDENCE CREDIT To obtain residence credit in the Graduate School for Summer Session work the student must register both

in the Summer Session and in the Graduate School; and such registration must be completed within the first week of the Session.

CANDIDATES IN THE

SCHOOL OF EDUCATION

The School of Education in its administration of graduate work functions as a division of the

Graduate School of the University with the same requirements for admission except as to foreign languages. Two professional degrees are offered. (1) The degree of Master of Education (M.Ed.) is intended primarily for those who complete, through a newly-established five-year program, the pre-service requirements for admission to teaching. (2) The degree of Master of Science in Education (M.S. in Ed.) is intended primarily for those who already hold certificates to teach but who wish to prepare themselves for some specialized form of educational service, such as administration, supervision, or guidance. In general, the program does not demand the extensive research required of a candidate under Plan A of the regular Master's degree and permits a broader selection of courses. For further information regarding the requirements for these degrees, consult the An-nouncement of the School of Education, which will be sent upon request.

NON-CANDIDATES

A student admitted to the Graduate School as a noncandidate selects an adviser to direct his work. He then files with the Dean FEES

of the Graduate School not later than one week after registration a statement, approved by his adviser, of the studies he plans to pursue.

RESIDENT DOCTORS

Persons who hold a Doctor's degree or have equivalent standing may, subject to permission from the Dean of the Graduate School, register as resident doctors to carry on advanced work in their special fields of study. Upon recommendation of the Dean of the Graduate School resident doctors are exempt from the payment of tuition and all other fees except laboratory fees. Ordinarily, resident doctors may not attend courses without the payment of tuition.

FEES

All fees are due and payable at the Treasurer's office in Morrill Hall on registration day, July 2. The last day for payment of fees without penalty is Friday, July 6.

TUITION FEES

The tuition fee for the Summer Session is \$60. Students taking unit courses for less than six weeks will pay tuition at the rate of \$12 a week. If unit courses extending through six weeks are taken, the tuition fee will be \$60. Special fees are charged for individual instruction in music, tennis, and other subjects.

MATRICULATION FEE

A matriculation fee of \$11 is charged if the student is registering for the first time in the Graduate School of Cornell University, unless the student, as an undergraduate in Cornell University, has already paid this fee. A student registering in the Summer Session but not in the Graduate School does not pay this fee unless he is at the same time registering for the first time as a candidate for a degree from one of the other Schools or Colleges of the University. For further information about this fee, the *General Information Number*, which may be obtained from the Secretary of the University upon request, should be consulted.

OTHER FEES

AND DEPOSITS All Summer Session students will also pay a health service and infirmary fee of \$4.50. The services furnished for this fee are described on page 16.

A deposit of \$5, refundable when all books have been returned, is required for the withdrawal of books from the University library.

Laboratory, shop, field-trip, and incidental fees are charged for materials used and for other expenses in certain courses. The amounts of these fees are specified in the descriptions of the courses in which they are charged.

Deposits refundable upon return of apparatus, etc., are required in certain courses. The amounts of these deposits are specified in the descriptions of the courses in which they are charged.

Special fees are charged for individual instruction in music and for the use of practice facilities. For the amounts of these fees, see under the description of courses in music.

GENERAL INFORMATION

A fee of 10 cents a period is charged for the use of the University swimming pool in Beebe Lake, adjacent to the campus.

OTHER REGULATIONS

CONCERNING FEES If a student withdraws from the Summer Session, the Treasurer may refund a part of the tuition fee

or cancel a part of the obligation that the student has incurred for tuition, provided the reason for the withdrawal be stated in writing and be satisfactory to the Treasurer and the Registrar. In such cases the student is required to pay twenty per cent of the term's tuition for each week or fraction of a week between the first registration day and the date of his certificate of withdrawal **unless the withdrawal is made before noon on Thursday, July 5.**

Student registering at any time during the last five weeks of the Session are required to pay for the remainder of the term at the rate of twenty per cent of the term's tuition for each week or fraction of a week between the date of registration and the last examination day of the term.

Any student, graduate or undergraduate, except as hereinafter provided, who fails to pay his tuition, fees, and other indebtedness, or, if entitled to free tuition fails to claim the same at the Treasurer's office and pay his fees, within the time prescribed by the University, is thereby dropped from the University. When in his judgment the circumstances in a particular case so warrant, the Treasurer may allow an extension of time to complete payments. For such extension, the student will be assessed a fee of \$2. A reinstatement fee of \$5 will be assessed in the case of any student who is permitted to continue or return to classes after being dropped from the University for default in payments. For reasons satisfactory to the Treasurer and the Registrar, which must be presented in writing, the above assessment may be waived in any individual case.

Any tuition fee or other fee may be changed by the Trustees to take effect at any time without previous notice.

SPECIAL REGULATIONS

CONDUCT AND SCHOLARSHIP The Summer Session is conducted under the general regulations governing conduct and scholarship which apply to all sessions of the University. Students are expected to familiarize themselves with dormitory and other rules and to abide by them.

The University rules governing student conduct are:

"A student is expected to show both within and without the University unfailing respect for order, morality, personal honor, and the rights of others. The authority to administer this rule and to impose penalties for its violation is vested in the University Committee on Student Conduct. The rule is construed as applicable at all times, in all places, to all students of the University."

"A student may at any time be removed from the University if, in the opinion of the Committee on Student Conduct, his presence is not conducive to the University's best interests."

The officers of the University also reserve the right to cancel the registration of any student at any time for neglect of scholastic duties.

AUTOMOBILE REGULATIONS

For the duration of the war, students in attendance at Cornell University may not drive motor vehicles in or about Ithaca except by special permission. In accordance with this regulation, Summer Session students may not bring automobiles or motor cycles to Ithaca unless they have received official permission in advance. All correspondence on this matter should be addressed to Mr. H. H. BENSON, Executive Officer, Campus Patrol Office, Cornell University.

Each student who, having received permission in advance, maintains or operates a motor vehicle in or about Ithaca during the Summer Session must register with the Campus Patrol Office at the time of registration for courses.

For this Summer Session, parking will not be restricted in most of the areas of the Campus. A list of restricted areas and places will be furnished at the time of registration.

CASHING OF CHECKS

The Treasurer of the University accepts checks in settlement of charges payable at his office, but a rule of the Board of Trustees forbids him to cash any credit instrument, even to the extent of accepting a check or draft in amount greater than the sum due and returning the excess in cash. Students are therefore advised to open an account in an Ithaca bank as soon as they arrive in town, or else provide themselves with travelers' checks, drafts on New York City banks, money orders, or other form of credit instrument such as a bank will cash in the ordinary course of business.

FOREIGN STUDENTS

The University maintains on its staff a Counselor to Foreign Students whose duty is to look after the welfare of all students from other countries. It is suggested that all foreign students write to him before coming to Ithaca, or call upon him soon after arrival. He will be glad to help them find suitable living quarters and assist them with introductions. Letters of this kind should be addressed to Mr. DONALD C. KERR, Counselor to Foreign Students, Cornell Cosmopolitan House, 301 Bryant Avenue, Ithaca, N. Y.

ROOMS FOR WOMEN

The University has two groups of residential halls for women in which board and room can be obtained during the summer by registered students only. The BALCH HALLS accommodate 318 students; PRUDENCE RISLEY HALL has a capacity of 204 students. In Risley Hall students enrolled in the sixteen-week Summer Term will be accomodated first; rooms not required for Summer Term students will be assigned to applicants planning to register in the six-week Summer Session. For board and room in these halls, and an allowance of laundry, there is a uniform charge of \$108 for the six-week Summer Session.

All students obtaining board in the halls will be required to deposit their ration book with the Manager of Residential Halls on registration day.

GENERAL INFORMATION

COTTAGES

Several cottages near Prudence Risley and Balch Halls, and a group of cottages on the Circle, near the campus of the State Colleges, will be open for more mature students. Persons residing in these cottages may obtain their meals at the University cafeterias. The charge for these cottages includes room and allowance of laundry only, and varies with the cottage and room selected.

UNDERGRADUATE WOMEN

All women undergraduates of Cornell University and of other institutions, and all other women students who are less than twenty-one years of age, are required to live in the residential halls or in sorority houses, and to take their meals there.

GRADUATE WOMEN

Graduate women students may secure rooms in the cottages, in other houses approved by the Counselor of Students, or in the residential halls if there is space. A list of approved houses is prepared about June 1 and it will be mailed upon application to the Counselor of Students for Women, 1 Sage Avenue.

OPENING DATE

In the residential halls and cottages for women, rooms may be occupied on the night of Saturday, June 30; earlier occupancy will not be possible.

HEAD RESIDENTS

The Head Residents in charge of the halls are glad to know the students, to advise them in illness or other emergency, and to give them whatever information they wish about the University or the town. It is understood that persons living in the halls will conform to the house regulations made for the convenience and comfort of all.

APPLICATIONS

FOR ROOMS Applications for rooms in the residential halls or cottages for women and requests for the list of approved houses for women should be addressed to the Manager of Residential Halls, Morrill Hall, Ithaca, New York. Floor plans of the residential halls and other information about rooms may be obtained, before a reservation is made, by addressing the same office.

Application for rooms should state the exact dates of the proposed attendance at the University.

DEPOSITS WITH

APPLICATIONS A deposit of five dollars must accompany each application for a room in any of the residential halls for the Summer

Session; otherwise the application will not be entertained. The rooms are reserved in the order of application. If a room assigned is occupied by the applicant, the amount of the deposit is held until the end of the Session to

ROOMS FOR MEN

cover the return of keys and any damage to building or furniture other than ordinary wear and tear, and to insure the completion of the lease. The deposit will be refunded if the applicant gives formal notice to the Manager on or before June 15 that the applicant wishes to withdraw the application.

Checks should be drawn to the order of Cornell University.

ROOMS FOR MEN

Because the residential halls for men have been taken over to accommodate men in training for service in the armed forces, no rooms in these halls will be available to Summer Session students. Information about suitable rooms in private houses may be secured after June 1 from the office of the Counselor of Students, 201 Tower Road.

HOUSES AND

APARTMENTS Graduate students who wish to rent houses and apartments will be able to obtain some information from the Counselor of Students, 201 Tower Road. Under present conditions, however, it is virtually impossible to maintain an accurate list of such accommodations. For that reason interested students should plan to come early, and should depend upon real estate agencies and the Ithaca Journal for up-to-date information.

DINING ROOMS,

CAFETERIAS The dining rooms of Prudence Risley and Balch Halls will be reserved for the use of occupants of those halls. Space

remaining when occupants of the halls have been accommodated will be made available to occupants of the cottages at the rate of \$9.25 a week.

The dining facilities of Willard Straight Hall and the cafeterias in Martha Van Rensselaer Hall are open to both men and women students. Board may be obtained at these places and at cafeterias, dining rooms, and restaurants near the campus at \$1.50 to \$2 a day.

COST OF LIVING

An estimate of the cost of living in Ithaca in the summer can be made by consulting the figures given above. In private houses rentals vary according to the location. Rooms are rented with the understanding that they will be occupied for the entire Session unless both parties agree otherwise. Table board is generally engaged by the week.

MEANS OF

SELF SUPPORT There are many places available for those students, both

men and women, who wish to work for their board in the residential halls department; applications for such work should be addressed to the Manager of Residential Halls. Applications from women students for other kinds of work should be addressed to Miss THELMA L. BRUMMETT, Counselor of Students. Men who want other kinds of work should write to the University Placement Bureau, Willard Straight Hall, Ithaca, New York.

GENERAL INFORMATION

LIBRARIES

THE UNIVERSITY LIBRARY is open on week days from 7:50 a.m. to 10 p.m., except Saturday when it closes at 1 p.m. In this building are the main library, containing about 900,000 volumes, and most of the seminaries and special libraries. Students properly qualified are allowed the use of the seminary rooms and the books in them. The main collection is primarily a library of reference for use in the building. Students are, however, to a limited extent, allowed to take out books for home use. Persons wishing this privilege must make a deposit of \$5, which will be refunded upon the return of all books taken out.

THE LIBRARY OF THE NEW YORK STATE COLLEGE OF AGRICULTURE, in Stone Hall, is open on week days from 8:00 a.m. to 10:00 p.m. except on Saturday when it is closed at 5:00 p.m. In it will be found the bulletins and reports of the U. S. Department of Agriculture and of the State Experiment Stations together with the publications of State Boards of Agriculture, Horticultural Societies, etc. Similar publications are received from nearly all foreign countries. In addition to these, the principal periodicals relating to Agriculture throughout the world are subscribed for and preserved for reference. The entomological library in Comstock Hall is one of the most complete of its kind in the United States. Nearly all of the departments in which instruction is given have extensive well-selected departmental libraries.

THE LIBRARY OF RECORDED MUSIC and scores to parallel these recordings are available in the Music Building for the use of the general student body. This library may be used in the Music Building only, during the hours 9 a.m. to 5 p.m. daily, and 7 p.m. to 9:30 p.m. Monday, Wednesday, and Friday, and on Sunday afternoons from 2 p.m. to 5 p.m.

HEALTH SERVICE

The Student Medical Clinic at 7 Central Avenue will be available for all registered Summer Session students. Hours for civilian students at the Clinic will be from 9 a.m. to 12 m. and from 2 p.m. until 4:30 p.m., except Saturday and Sunday. Saturday hours at the Clinic will be from 9 a.m. until 12 m.; Sunday, from 10 a.m. to 11 a.m. A nurse will be in attendance daily from 12 m. until 2 p.m. weekdays, except Saturday. Those desiring to consult a physician after 5 p.m. week-days, on Saturday afternoons, or on Sunday for an illness or accident of emergency nature may go directly to the Cornell University Infirmary. The night service is not intended for the use of those who could visit the Clinic during the day.

Emergency room call service will be available at a charge of three dollars for night visits and two dollars for day visits. Requests for room visits will be cleared through the Student Medical Clinic, 3331–2336, during the day and through the Infirmary switchboard, Ithaca 2747, after 5 p.m. on weekdays, Saturday afternoons, and Sundays. Patients requiring more than one emergency visit for any one illness will not be treated in their rooms but will be requested to go to the Infirmary.

The Infirmary is a modern hospital and is approved by the American College of Surgeons. It will be available for Summer Session students. Two days bed, nursing, and ordinary medical care will be granted without extra charge to each student registered in the Summer Session. Per diem rates in the Infirmary for registered students beyond the exemption period will be two dollars in a ward and three dollars in a room. There will be no additional charge for extended ordinary medical care.

If a student, while in the Infirmary, wishes to avail himself or herself of a private physician from the visiting staff, he or she is at liberty to do so. A student may also receive medical care from private physicians from the city of Ithaca rather than consult the Clinic. In either case this service is not included in the health fee.

RECREATION AND

cation to the Director of the Hall.

PUBLIC EVENTS WILLARD STRAIGHT HALL, the student union of Cornell University, contains lounges for men and women, rooms for student meetings, for games and for dancing, the University Theatre where motion pictures and dramatic productions are given each week, a billiards and game room, a barber shop for men, a browsing library well stocked with books of general interest, and a music and art room. On the upper floors of the Hall are sleeping rooms used principally

by parents and guests of students, by alumni, and by guests of the University. Willard Straight Hall is for the use of members of the University; but guests of members may secure guest cards for limited periods upon appli-

LECTURES

A public lecture, open to all Summer Session students, is given each Wednesday evening of the Session. Both non-resident lecturers and distinguished members of the faculty will take part in the series, and the subjects are chosen for their general interest and timeliness.

SAGE CHAPEL

Religious services are conducted in Sage Chapel throughout the academic year by clergymen of various religious denominations. There will be services in the Chapel on five Sundays during the Summer Session, July 8 to August 5 inclusive.

CONCERTS

A series of evening concerts will be given in Bailey Hall during the Summer Session. The dates and programs will be announced in the Weekly Calendar.

CHORUS

All members of the Summer Session who are interested in singing in a chorus of mixed men's and women's voices are asked to meet in the choir loft of Sage Chapel on Wednesday afternoon, July 4, at 4:45 o'clock. At this time a schedule of rehearsals will be arranged in accordance with the desires of those interested. The chorus will be directed by Professor PAUL J. WEAVER.

ORCHESTRA

An orchestra will rehearse regularly during the Summer Session and will play one concert. Members of the Summer Session who wish to join this organization should apply to Associate Professor KUYPERS at Barton Hall on Monday, July 2, or at his office in the Music Building, 320 Wait Avenue, as soon thereafter as possible.

SUMMER

THEATRE During the Summer Session performances are given by the Summer Theatre Company on Friday and Saturday evenings. The performances are given in the theatre of Willard Straight Hall; an admission charge is made. The plays to be produced will be announced each week in the Weekly Calendar.

The plays of the Summer Theatre Company are directed by Professor DRUMMOND, assisted by members of the Direction Staff. Competition for places in the cast and production staffs is restricted to persons regularly enrolled in the Summer Session or Summer Term. Detailed announcements will be made in the various classes in Drama.

FILMS

Noteworthy recent European and American films will be presented weekly by the Summer Theatre. Tickets will be on sale in Willard Straight Hall.

SPORTS

Tennis courts, conveniently located about the campus, are available for use without fee. Private lessons in tennis and golf are offered by members of the Department of Physical Education; tennis, badminton, and golf tournaments and a swimming meet are arranged as part of the recreational program of the Summer Session. A nine-hole golf course is operated by the Department of Physical Education and Athletics; for information about conditions for its use and fees, address Mr. R. J. KANE, Schoellkopf Building, Cornell University. A gorge at one end of Beebe Lake, on the campus, forms a natural swimming pool, where a guard is on duty every day of the Session.

WEEKLY CALENDAR

A Weekly Calendar is issued and posted on each Saturday of the Summer Session. This carries all official notices and gives details of all public events, such as concerts, lectures, excursions, etc. Copies may be obtained upon request at the desk of Willard Straight Hall, at the Summer Session office, and at other University offices. OURSES OF INSTRUCTION are listed by fields of instruction, alphabetically arranged. The right is reserved to cancel any course not elected by five students in the case of graduate courses or eight students in the case of undergraduate courses. Because of other demands which may be placed upon the instructing staff, it may be necessary to substitute other instructors for the ones named in the course descriptions.

UNIT COURSES

Unit courses, less than six weeks in length, are indicated by asterisks and their dates are given in the descriptions.

CLASS SCHEDULES

In most courses of instruction, classes will meet five times a week, on each week day except Saturday. Such classes will meet on Saturday, July 7, the first Saturday of the Session, but on no other Saturdays. Class periods begin on the hour unless otherwise indicated, and are fifty minutes in length. Laboratory periods are of various lengths, as indicated in the description of courses which include laboratory work.

ROOM SCHEDULES

The meeting places of courses will be given in a special announcement which will be furnished at the time of registration.

SCHEDULE OF

EXAMINATIONS With a few exceptions, examinations will be held on Thursday, August 9, and Friday, August 10, at hours in-

dicated by the schedule below; in the exceptional cases, the examination will be held on Wednesday, August 8, at 2. The usual class rooms will be used unless a change is announced by the instructor.

In courses which meet for more than one hour daily, the examination period is determined by the first hour at which they meet. For example, Spanish S I meets daily at 8 and 12; the examination will be held on Thursday at 8. In courses which include both lecture and laboratory periods, the examination period is determined by the lecture hour. In courses in which no examination is to be given, an announcement to that effect will be made by the instructor; in such cases the last meeting of each course will be held in the examination period for that course.

Examinations will be held as follows: 8 o'clock classes, Thursday at 8. 9 o'clock classes, Friday at 8. 10 o'clock classes, Thursday at 10.30.

11 o'clock classes, Friday at 10.30. 12 o'clock classes, Thursday at 2. Afternoon classes, Friday at 2.

COURSES OF INSTRUCTION

COURSES OF INSTRUCTION

AVIATION

UNITED AIR LINES SCHOLARSHIPS

The United Air Lines offers one or more Summer Session tuition scholarships to help teachers to build up a better teaching background of aviation facts, to learn improved methods of teaching existing units or courses in aviation, to discover effective ways of using aviation materials to enrich regular school studies and to develop additional needed teaching units suitable for publication.

Application for these scholarships should be made to the Director of the Summer Session, and must be accompanied by a statement of the proposed program of courses.

BIOLOGICAL SCIENCE

BACTERIOLOGY

A I. General Bacteriology. Undergraduate and graduate; credit two or four hours. Lectures, daily except Sat., 1:40. Laboratory, daily except Sat., 2:30-4:30. Professor STARK and assistant.

An introductory course giving a general survey of the field of bacteriology, together with the fundamentals essential to further work in the subject. The morphology, physiology, and classification of bacteria; the culture of microorganisms, simple and differential staining, and general bacteriological technique; the bacteriology of soil, air, water, sewage, milk, and foods; the principles of immunity and the microbiology of disease. Laboratory fee, \$10, for those seeking four credit hours.

A 220. Special Problems. Credit and hours by arrangement. Professors SHERMAN and STARK.

Special problems in bacteriology may be elected by qualified students with the permission of the instructors.

BOTANY

S 1a. General Botany—Anatomy and Physiology. Undergraduate; credit three hours. Equivalent to Botany 1, first term. Lectures, daily except Sat., 2. Laboratory and conferences, daily except Sat., 3-4:30. Dr. CUTTER.

The structures and life processes of the higher plants are examined in detail, with considerable attention to information necessary for more advanced or practical work with plants. Students taking this course may attend the field trips offered in connection with Botany A rb. Laboratory fee, \$3.50.

S 1b. General Botany—Morphology and Taxonomy. Undergraduate; credit three hours. Equivalent to Botany 1, second term. May be taken in conjunction with Botany S 1a, or independently. Lectures, daily except Sat., 10, Laboratory, daily except Sat., 11-12:30. Three half-day field trips on Saturdays to be arranged. Professor PETRY and Dr. CUTTER.

Representatives of the principal groups of plants are studied with a view to acquainting the student with the plant kingdom as a whole. The principal families of ferns and flowering plants are examined and practice in identification is given.

The field work is intended to afford to teachers and others first-hand knowledge of the commoner plants of all the great groups. Facilities for collecting plant materials for teaching or other purposes will be provided. Laboratory fee, \$3.50.

A 31. Plant Physiology. Undergraduate and graduate; credit four hours. Prerequisite, general botany or biology, and elementary chemistry. Lectures daily except Sat., 9. Laboratory, 10–12. Associate Professor CLARK.

BIOLOGICAL SCIENCE

This course is designed to acquaint the student with the important life processes of plants. Topics such as water-relations, photosynthesis, translocation, digestion, respiration, mineral nutrition, and growth relations are studied in some detail and particular emphasis is placed, both in laboratory and in classroom, on discussion of the principles and their applications to living plants. Laboratory fees, \$4; deposit, \$3.

ENTOMOLOGY

A 12. General Entomology. Undergraduate and graduate; credit four hours. Prerequisite, Biology I or Zoology I or equivalent. Lectures, daily except Sat., 10. Practical exercises, M W F, 2-4:30. Professor MATHESON.

This course includes lectures and demonstrations on the characteristics of the orders and families of insects with the study of their habits, life-histories, and relations to other animals and to plants. The laboratory work consists of the study of the structure, ecology, metamorphosis, and classification of insects. Field trips to study insects in their natural habitats are an important feature. Each student is required to collect and prepare a typical collection of insects. Opportunities are given for the rearing of insects in the Insectary, and special work is offered to suit the needs of individual students. Textbook: Matheson, *Entomology for Introductory Courses*. Laboratory fee, \$2.50.

A 300. Research in Entomology. Credit one to three hours. Laboratory fee and hours to be arranged. Professor MATHESON. Prerequisite, permission of the instructor.

GENETICS

A 101. General Genetics. Undergraduate and graduate; credit four hours. Prerequisite, a course in botany, zoology, or biology. Lectures, daily except Sat., 10. Laboratory, daily except Sat., 11–12:30. One conference period, to be arranged. Assistant Professor CUSHING.

A general study of the fundamental principles of genetics. Discussion of simple cases of inheritance, gene interaction, gene linkage, inheritance of quantitative characters, inheritance of sex, effects of inbreeding and crossing, the origin of heritable variation, gene action, and the relation of genetical principles to eugenics. Laboratory studies of hybrid material in plants and animals and breeding experiments with Drosophila. Laboratory fee, \$3.

ZOOLOGY

S 8. Systematic Vertebrate Zoology and Ecology. Undergraduate and graduate; credit four hours. Lectures, M T W Th, 1:40-2:30. Laboratory and field work, M T W Th, 2:30-5:30. One or two all-day trips are required. Occasionally a field trip, 5:30-8 a.m. or 5-8 p.m., may be substituted for the regular periods. Professor WRIGHT.

Lectures on fishes, amphibians, reptiles, and mammals; their habits, life-histories, coloration, respiration, locomotion, reproduction, and adaptations; together with their classification, nomenclature, characters, and relationships. Laboratory study of the parts employed in the classification of these groups, with training in the identification of two hundred and forty North American species. Field work is partly to give practice in field observations and in ready identification of local vertebrates in their natural environment, and partly to introduce some ecological methods. Textbook: Jordan's *Manual of Vertebrates of the Northeastern United States*, new edition. Laboratory fee, \$4.50.

S 112. Literature of Biology, Zoology, Ecology, Conservation, and Allied Sciences. Undergraduate and graduate; credit one hour. T W Th, 7:30 p.m. Professor WRIGHT.

The literature of zoology, ecology, limnology, oceanography, and kindred fields; fish

COURSES OF INSTRUCTION

and fisheries; amphibia, reptiles, and mammals; small and big game (commercial and sport); aquaria; herbaria; insect collections; zoological gardens, preserves; biological stations; game farms; animals in relation to recreation, settlement, forestry, agriculture, and other industries; biological resources, their exploration, conservation, utilization, and management.

EDUCATION

Types of Professional Programs Leading to State Certification

Programs for various types of professional workers have been so planned that it is possible for the student to secure a Master's degree while completing requirements for a state certificate. Among the professional positions for which programs have been planned are these:

Teachers and supervisors of academic subjects in the secondary school

Teachers and supervisors of agriculture, home economics, industrial arts, industrial education, and nature study

Supervisors of agriculture, home economics, and industrial education

Guidance counselors and personnel workers

Principles of elementary and secondary schools

Principles of vocational and technical high schools; directors of vocational education Supervisors of elementary school grades

Supervising principals of small village, central, and consolidated schools

Superintendents of large village or city school systems

District superintendents, county superintendents and other leaders in rural education

For information regarding any of these programs the student who is already matriculated in the Graduate School of Cornell University should consult the Chairman of his Special Committee. Others should write to the Director of the School of Education.

UNIT COURSES

Unit courses, two weeks in length, have been arranged to meet the needs of special groups of teachers. In the following list these courses are indicated by asterisks preceding the course numbers. Persons planning to take one or more unit courses should carefully note the period during which each is offered and whether it is necessary to apply for admission in advance of registration. In all such cases, students should write to the Director of the School of Education.

Administration and Supervision

A 260. The Elementary and Secondary School Principalship. Undergraduate and graduate; credit two hours. Daily except Sat., 2. Professor MOORE.

A consideration of the problems of elementary and high school administration. Intended primarily for persons interested in elementary or secondary principal's certificates.

A 261a. Fundamentals of Educational Organization and Administration. Graduate; credit two hours. Daily except Sat., 11. Superintendent HETHERINGTON.

A consideration of the more important problems in organizing and administering the community's educational program.

*A 262c. The School Plant. Graduate; credit two hours. Daily except Sat., 9-11; 2-3. A two-week unit course, July 30-August 10. Professor BUTTERWORTH and specialists.

A two-week workshop especially planned for administrative officers who expect to face building problems within the next few years. As a means of making the workshop

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EDUCATION

activities realistic, members of the class should, if possible, bring with them certain basic data regarding their situations. Write the instructor for a statement of the types of data desired. An architect and other specialists will be available for assisting with technical details.

The workshop will deal with the principles and techniques of planning a school building to house the community's educational program. Typical problems: evaluating a school plant; predicting pupil population; school-community relationships affecting the school building; determining needs as regards class and special rooms; preparing preliminary plans for the architect; new types of building materials and equipment; measuring probable utilization.

Since registration will be limited, early application for admission to the Workshop is desirable.

*A 262e. The Administration of Attendance. See Attendance, page 24.

A 263. Procedures and Techniques in Supervision. Graduate; credit two hours. Daily except Sat., 9. Professor MOORE.

Designed for superintendents, supervisors, and principals. Inexperienced students admitted only by permission. A consideration of the nature and purpose of supervision; the improvement of the learning-teaching process; skill in observations; analysis of methods; relationships between general and specific objectives; selection, analysis, and organization of subject matter; measuring and testing results; assisting teachers in professional growth.

*A 264. Seminar in School Administration. Graduate; credit two hours. Daily except Sat., 9–12. A two-week unit course, July 16–28. Superintendent KULP.

Consideration of current and recurrent problems of the school administrator such as: recruitment of teachers; establishment of policies of Boards of Education; preparation of budgets and salary schedules; organization of programs in health education and other recently mandated subjects; state aid, insurance; educational programs for returning veterans; and the like.

Special consideration will be given to problems in which any member of the group has a particular interest.

S 266. The Supervision of the Elementary School. Graduate; credit two hours. Daily except Sat., 11. Dr. JUNGE.

Designed for supervisors, elementary school principals, and superintendents. A consideration of important research studies which have a direct bearing upon the teaching and supervisory problems of the elementary school.

AGRICULTURAL EDUCATION

A 133. The Teaching of Agriculture. Undergraduate; credit and time to be arranged. Staff in Agricultural Education.

A 232d. Advanced Problems in the Teaching of Vocational Agriculture. Graduate, undergraduate by permission; credit two or three hours, the third hour by special arrangement only. Five to seven and one-half class hours per week throughout the sixweek period. Associate Professors HOSKINS, OLNEY, and SMITH.

Off-campus courses in centers to be announced, special units based on individual and community needs and resources, schedule to be determined. For 1945, special problem to be arranged.

A 250. Seminar in Agricultural Education. Graduate; credit two hours. Given only if sufficient enrollment is assured by June 15. Time to be arranged. Associate Professor HOSKINS.

COURSES OF INSTRUCTION

Theme: Evaluation; purposes and instruments applied to actual school situations. A 277. Courses of Study in Vocational Agriculture. Credit two hours. Given only

if sufficient enrollment is assured by June 15. T Th 1:30-4:00. Associate Professor Hoskins.

An evaluation of curriculum studies in agricultural education as a basis for the reconstruction of vocational courses in agriculture for secondary schools.

ATTENDANCE

*S 12a. Psychology of Exceptional Children. Undergraduate and graduate; credit two hours. Daily except Sat., 8, and other hours to be arranged. Two-week unit course primarily for supervisors of attendance, July 30-August 10. Professor FREEMAN.

Admission upon application to the Director of the School of Education before July 21. Will not be offered unless there is an advance registration of at least ten persons by that date.

An intensive course covering the essentials of course S 12.

*A 124. Social Case Work for Supervisors of Attendance. See Sociology and Anthropology, page 35.

*A 262e. The Administration of Attendance. Undergraduate and graduate; credit two hours. Daily except Sat., 8-10 and 2-3. A two-week unit course for supervisors of attendance, July 2-14. Miss MCCARTEY.

Admission upon application to the Director of the School of Education before June 23. Will not be offered unless there is an advance registration of at least ten persons by that date.

The major administrative problems of the supervisor of attendance; aims of the attendance service; its organization within the school system, including relationships with other services; methods of improving attendance, etc.

THE CURRICULUM

S 33b. Teaching Literature in Secondary Schools. Undergraduate and graduate; credit two hours. Daily except Sat., 11. Dr. GROMMON.

The purpose of this course is to suggest to inexperienced and experienced teachers methods for teaching high school pupils how to read the various types of literary selections.

S 127. Visual and Auditory Aids in Teaching. Undergraduate and graduate; credit two hours for lecture, or three hours for lecture and laboratory. Daily except Sat., 11. Two laboratory periods to be arranged. Assistant Professor JOHNSON.

A study of methods for preparing visual and other aids to instruction, together with a study of techniques for using such aids effectively.

S 147 The Language Arts in the Elementary School. Graduate; credit two hours. Daily except Sat., 9. Dr. JUNGE.

This course deals with procedures and materials in teaching the language arts in the modern elementary school. Special attention will be given to reading. The work is planned for experienced teachers, principals, and supervisors.

A 226e. The Teaching of Health in Junior and Senior High Schools. Undergraduate and graduate; credit two hours. Daily except Sat., 10. Miss VAN SLYKE and Assistant Professor JOHNSON.

A presentation of tested experiences in the teaching of health as a separate course and as a part of the sciences. Members of the class will be assisted in the development of additional units of instruction which recognize the problems of health education in their own school systems. A 276d. Major Problems and Trends in Curriculum Building Today. Undergraduate and graduate; credit two hours. Daily except Sat., 10. Professor FERRISS.

A consideration of some of the recent major trends in determining curriculum objectives, content, and organization in elementary and secondary schools today; and the interpretations of education, its nature and purposes forming the basis of those trends. Special attention will be given to significant problems of curriculum building in the light of existing theories and practices and emerging demands for readjustment. Some opportunity will be afforded for work and consultation on individual problems.

A 281c. Problems and Trends in the Redirection of Secondary Education. Undergraduate and graduate; credit two hours. Daily except Sat., 12. Professor FERRISS.

A consideration of selected recent trends in the conception of secondary education in the United States today as to its scope, aims, functions, organization, curricula, its adjustment to the needs of American youth and the demands of his social, economic, cultural, and spiritual environment. Attention will be given to some of the major problems that must be met in effecting the needed changes.

DEMONSTRATION SCHOOL

A demonstration school exemplifying modern informal methods in elementary schools will be maintained on the campus for observational purposes. Special opportunities for observation will be scheduled for classes in supervision and methods.

S 122a. Observation of Child Activity Education. No credit. Daily except Sat., 9–11:30 and group conferences each Thursday, 2–3:30. Professor Moore, Dr. JUNGE, Miss KNAPP, and others.

EDUCATIONAL PSYCHOLOGY, MEASUREMENT, AND GUIDANCE

S 7. Mental Measurements. Undergraduate and graduate; credit three hours. With consent of the instructor, this course may be taken without observations for two hours credit. Daily except Sat., 9. Observation hours to be arranged. Professor FREEMAN.

Concepts of intelligence; individual and group tests of intelligence; principles underlying their construction and interpretation; use of tests in schools, in the armed services, and in other fields. Lectures, readings, and observations of individual testing.

S 12. Psychology of Exceptional Children. Graduate; with the consent of the instructor, qualified undergraduates may be admitted; credit two hours. Daily except Sat., 11. Professor FREEMAN.

Designed to give a scientific understanding of children who deviate from the usual; the gifted, the feebleminded, the delinquent, those having special abilities or disabilities, those having personality defects, and those having sensory and physical handicaps. Lectures, reading, and case studies. Students who have not had or are not now taking a course in mental measurements may be admitted only with approval of the instructor.

*S 12a. Psychology of Exceptional Children. See Attendance, page 24.

S 28. Introduction to Educational and Vocational Guidance. Undergraduate and graduate; credit two hours. Daily except Sat., 8. Superintendent HETHERINGTON.

This is an information course. It is designed to familiarize students with: (1) the history, principles, purpose, and place of guidance in educational systems; (2) methods of collecting, classifying, indexing, and filing information on educational, occupational, and community resources available for a guidance program; (3) placement procedures and employment supervision.

S 34. Counseling Methods. Undergraduate and graduate, credit two hours. Daily except Sat., 9.

Techniques for collecting, integrating, and utilizing information about the individual.

H 119. Personnel Administration. Graduate; credit two hours. Daily except Sat., 10. Professor WINSOR.

A study of the problems of human management and industrial relations in business and industry. The principles and methods of recruitment, selection, placement, maintenance, organization, and government of employees are considered from the point of view of the personnel director and the guidance counselor.

A 214. Psychological Problems in the Classroom. Graduate; credit two hours. Daily except Sat., 3. Assistant Professor WoodRUFF.

Designed to provide members of the class with an opportunity to select their most persistent and troublesome classroom problems and analyze them to discover the psychological factors which give rise to them.

A 215. Psychology of Adolescence. Undergraduate and graduate; credit two hours. Daily except Sat., 2. Assistant Professor WOODRUFF.

A study of behavior during the adolescent stage of development.

H 217. Use and Interpretation of Tests in Guidance. Graduate; credit two hours. Daily except Sat., 8. Professor WINSOR.

This course deals with the development, use, interpretation, and significance of psychological measuring devices as a basis for analyzing the capacities, interests, and abilities of individuals seeking vocational guidance. A course in measurement is pre-requisite.

A 251. Educational Measurement. Graduate; credit two hours. Daily except Sat., 8. Assistant Professor BAYNE.

The use and interpretation of tests by teachers and school officers as aids in the improvement of instruction.

Home Economics Education

A 134c. Adult Homemaking Education. Program Planning and Methods (E 340). Graduate; credit two to three hours. Daily except Sat., 11.

Individual and group conferences concerning students' own leadership jobs. Field trips to observe and participate in programs of out-of-school educational agencies near Ithaca (to be omitted by those registered for only two credit hours); personal conferences with professional and lay leaders. Discussion of the immediate importance of certain problems of families, of effective ways to work with families toward significant educational purposes, and of ways agencies may cooperate to plan and carry on programs and to develop leaders.

Estimated expenses for field trips, \$5-\$7.

A 236b. Workshop in the Teaching of Home Economics. 1945: Nutrition, and Clothing and Textiles; 1946: Housing and Family Relationships; 1947: Management and Child Development. Credit two to four hours. First meeting, July 2, at 9. To be taken in connection with Course E 350, Problems in Nutrition, or E 350, Workshop in Textiles and Clothing. Miss HASTIE and Home Economics staff.

Open to experienced teachers. Each student will select either food and nutrition or clothing and textiles as her field of concentration, and will work on these problems under the guidance of the instructors.

Facilities will be available to those who wish to prepare illustrative materials, assemble reference and source materials and to improve techniques and skills in connection with specific projects in relation to work with in-school and out-of-school youth and adults. Fee, \$2. Additional fees will depend upon the cost of materials necessary for the various projects selected.

The course will be limited in number. Registrations must be made not later than June 15. Make application to Professor FLORA M. THURSTON, Stone Hall, Cornell University.

A 248. Preparation of Teachers of Home Economics for Secondary Schools. Graduate; credit two hours. Daily except Sat., 9. Associate Professor HUTCHINS.

Planned for cooperating teachers participating in teacher education programs and for experienced teachers who desire to prepare for positions in the field of teacher education.

The course deals with the nature, purpose, organization, and administration of student teaching; the functions of the cooperating teachers; induction of student teachers into the total school program and into community activities; critical analysis and appraisal of directed observations, participation, and teaching; cooperating teacher and student teacher conferences; instructional materials for courses in directed teaching. Students are advised to bring with them materials for appraisal and revision, such as observation guides, criteria used in continuous appraisal of the student teacher's performance; student-teacher manuals. Fee, \$2.

A 249b. Seminar in Home Economics Education. Studies and Research. Graduate; credit two hours. Daily except Sat., 10. Professor THURSTON.

For graduate students with experience and background in home economics education. Consideration will be given to problems requiring investigation, to methods appropriate for studies and research in this field, to an evaluation of recent studies, and to planning a research project.

*A 269. Administrative Problems in Home Economics Education. Graduate; 3-week unit course, July 2-21; credit two hours. Daily except Sat., 2-4. Associate Professor HUTCHINS.

In 1945 this course will be developed in relation to Courses 261a and 281c. Only students who are registered for the first three weeks of either 261a or 281c may register for this course. It is open to supervisors and head teachers in the field of Public School Home Economics Education and to experienced teachers who are interested in qualifying for such positions.

Topics for discussion will include: planning for the development of curriculum programs, evaluation of Home Economics programs, selection of teachers, the in-service education of teachers, financing of city and rural Home Economics programs. In addition to a daily two-hour discussion and work period, provision will be made for a limited number of conferences on individual problems.

In 1946 this course will be developed in relation to problems of counseling and of equipment and housing.

A 276c. Workshop in Home Economics Education. Graduate; credit two to four hours. Daily except Sat., 2. Other hours to be arranged. Professor THURSTON and Miss THORNE.

The Workshop will provide an opportunity for experienced teachers and supervisors to work under supervision on curriculum problems and related projects. The intensive study of a problem significant to the student and participation in group conferences with workers of similar interests furnish an unusual experience for the supervisor and teacher. Teachers of New York State and others may have individual help on the development of units of work.

Since some preliminary planning is desirable, interested teachers and supervisors should make application as early as possible to the instructor, stating the field and the grade level in which they are interested, and the nature of the problem upon which they wish to work. To be assured of a place in the Workshop, applications should be made not later than June 15 to Professor FLORA M. THURSTON.

INDUSTRIAL EDUCATION

*S 143c. Special Methods in Industrial and Technical Education. Undergraduate and graduate; credit two hours. Daily, 9–12, July 2–14. Mr. GRAY.

Special methods applicable to teaching technical and related subjects in drawing, shop, laboratory and classroom.

*A 242a. Teaching and Administrative Problems in Industrial Arts Education. Graduate; credit two hours. Daily, 9–12, July 2–14. Mr. Roden.

This course deals with the teaching and administrative problems which are growing out of changes in industrial arts education.

*A 242e. Industrial Arts Curriculum and Technological Change. Graduate; credit two hours. Daily except Sat., 9-12, July 16-28. Mr. RODEN.

This course deals with the effects of technological changes in industry on the industrial arts curriculum, and will consider developments in such fields as aviation, plastics, metal processing and the electrical field.

*S 243a. Supervision of Industrial and Technical Education. Graduate; credit two hours. Daily except Sat., 9–12, July 16–28. Mr. GRAY.

Principles and practices in the improvement of instruction in all phases of industrial and technical courses.

*A 243b. Seminar in Industrial and Technical Education. Graduate; credit two hours. Daily except Sat., 9–12, July 30–August 10. Professor EMERSON.

A study of current problems in industrial and technical education, including War Training Programs, new developments in vocational-industrial schools, and the development of post-high school industrial and technical training programs. Special attention will be given to the problems of technical institute education as applied to the proposed program in New York State, as well as developments nationally.

The facilities of the National Defense Curriculum Laboratory will be available for graduate students desiring to register for special work in the development of instructional material under course B300.

NATURE STUDY AND SCIENCE EDUCATION

A 107. The Teaching of Nature Study or Elementary Science. Undergraduate and graduate; credit three hours. Lectures, daily except Sat., 8; Wed. and Fri., 1:40-4, and all day the second and fifth Saturdays. Professor PALMER and Miss GORDON.

A study of content and methods of nature study and elementary school science, including materials and techniques useful in classroom or camp, or by leaders of juvenile groups. Laboratory fee, \$3.

A 205. The Teaching of Conservation. Undergraduate and graduate; credit two hours. Daily except Sat., 9. Professor PALMER.

Consideration of the principles, materials, and methods of conservation education useful to teachers and others engaged in teaching of the wise use of the resources of the nation. Sections will deal with Safety Education, Wild Life Conservation, Soil Conservation, and Conservation of Human Resources with special trips supplementing classroom activities. S 226. The Teaching of Science in Secondary Schools. Undergraduate and graduate; credit two hours. Daily except Sat., 8. Assistant Professor JOHNSON.

Methods and materials appropriate for the sciences will be revealed in the study of selected science units. Members of the class will have the opportunity to work cooperatively in the development of models, charts, slides, study guides, and other teaching aids, for additional units of instruction.

SOCIAL STUDIES EDUCATION

The Cornell University Workshop for Teachers of the Social Studies is planned for those who wish to develop courses of study, evaluation instruments and other instructional materials. Participants may elect one or two courses in addition to one of the Workshop senimars, Ed. S 230a and Ed. S 230b, and should consider especially the offerings of the History Department and other social science divisions described on pp. 33-35.

The seminars provide an opportunity for a practical discussion of objectives, curriculum materials, teaching and evaluation procedures. The afternoons are free so that participants may arrange request meetings, and work on individual and group projects.

Participants will have the exclusive use of a large and well-equipped curriculum laboratory and may confer with specialists in content and methods in developing their projects. Teachers should apply to Professor HOWARD R. ANDERSON, *Stone Hall, Cornell University, Ithaca, N. Y.*, for admission to the Workshop, and should explain the type of project which they plan to develop at Cornell.

All participants must enroll in one of the following seminars:

Ed. S 230a. Seminar in Social Studies Education: World History and Geography. Graduate; credit two to four hours. Daily except Sat., 11. Miss HAINES and Professor ANDERSON.

Ed. S 230b. Seminar in Social Studies Education: American History and Problems. Graduate; credit two to four hours. Daily except Sat., 8. Miss HAINES and Professor ANDERSON.

RESEARCH

B 199. Informal Study in Education. Undergraduate; credit as arranged. Members of the staff of the School of Education.

This privilege may be granted to a qualified student of junior rank or above, with the approval of his adviser and the consent of the appropriate member of the Education faculty.

B 300. Research. Graduate; credit as arranged. Members of the staff of the School of Education.

Students working on theses or other research projects may register for this course. The staff members concerned must be consulted before registration.

ENGLISH, SPEECH AND DRAMATICS

ENGLISH

S 27a. The Short Story. Undergraduate and graduate; credit two hours. Daily except Sat., 12. Mr. HALLSTEAD.

A study of representative short stories by English and American authors.

S 36a. Poetry of the Victorian Age. Undergraduate and graduate; credit two hours. Daily except Sat., 11. Associate Professor FRENCH.

A study of English poetry from 1830 to 1910, with special attention to Browning.

S 38a. Victorian Essayists. Undergraduate and graduate; credit two hours. Daily except Sat., 10. Mr. HALLSTEAD.

Selections from the essays of Arnold, Ruskin, and others.

S 39b. American Literature since the Civil War. Undergraduate and graduate; credit two hours. Daily except Sat., 8. Professor BLAIR.

The later development of American literature: Whitman and recent writers of fiction, poetry, and criticism.

S 48. Modern Drama. Undergraduate and graduate; credit two hours. Daily except Sat., 10. Associate Professor HALLINE.

The drama since Ibsen: important European and American plays; types and forms.

S 53. Recent British Poetry. Undergraduate and graduate; credit two hours. Daily except Sat., 12. Associate Professor FRENCH.

The leading British poets from 1890 to the present. Texts: Sanders and Nelson, *Chief Modern Poets of England* (third edition); Untermeyer, *Modern British Poetry* (fifth revised edition).

S 59a. American Literature. Undergraduate and graduate; credit two hours. Daily except Sat., 9. Professor BLAIR.

An intensive study of selected topics in American literature.

S 61b. Shakespeare. Undergraduate and graduate; credit two hours. Daily except Sat., 9. Associate Professor HALLINE.

A study of the dramatic art of Shakespeare as illustrated in the major tragedies.

S 140. Seminar in American Literature. Graduates only; credit two hours. Hours to be arranged. Dr. GROMMON.

For students at work upon special problems, essays, or theses in American Literature; the content will depend upon the needs of the individual members.

S 701. Special Topics for Investigation. For graduate students who wish to supplement courses described above or who are prepared to pursue independently of formal courses, advanced study under the direction of one or more members of the staff. Credit varies with the nature and amount of the work done. Such students may write to Mr. W. H. FRENCH or consult him at the opening of the session.

JOURNALISM

S 15. Elements of Journalism. Undergraduate and graduate; credit two hours. Daily except Sat., 11. Professor BRISTOW ADAMS.

The principles of journalistic writing, with special emphasis on the writing of news, but with some instruction in the writing of editorials, criticisms, reports, and news features.

S 122. Special Articles. Undergraduate and graduate; credit two hours. Daily except Sat., 9. Professor BRISTOW ADAMS.

The writing of non-fiction articles for newspapers and magazines.

SPEECH AND DRAMA

Students may confer either with the departmental representatives in Barton Hall, or with individual instructors, who will be in their offices both on registration day and on the first day of instruction. For information about advanced work in Speech Training and Phonetics, consult Professor THOMAS, Goldwin Smith 23; in Rhetoric and Public Speaking, Professor WAGNER, Goldwin Smith 233; in Drama and Theatre, Professor DRUMMOND, Goldwin Smith 127. S I. Public Speaking. Undergraduate; credit two hours. Daily except Sat., II. Associate Professor WAGNER and Mr. CARSON.

Practice in speech-making, on topics of current interest. Methods of preparation and delivery studied in relation to practice; class discussions; conferences. Regular students passing the course are admitted to Public Speaking 2 and 12.

Enrollment will be limited; students must apply on registration day to the Departmental representatives in Barton Hall.

S 20. Rhetorical Theory. Graduate; credit two hours. Daily except Sat., 12. Associate Professor WAGNER.

Lectures and discussions. A survey: function of speech in society; purposes, and forms of public address; speech preparation; structure; style; delivery; theories of persuasion.

S 28. The Teaching of Speech in Secondary Schools. Undergraduate and graduate; credit two hours. Daily except Sat., 9. Associate Professor WAGNER.

A study of outstanding problems in the teaching of speech, with emphasis on oral English and public speaking: aims, methods and materials, organization of courses and of activities; recent reports, syllabuses, and experiments in their bearing on classroom procedure; some practice in effective speaking and oral reading.

S 32. Teachers' Course in Phonetics and Speech Training. Undergraduate and graduate; credit two hours. Daily except Sat., 10. Associate Professor Тномаs.

A study of English phonetics, pronunciation, and the improvement of speech; primarily for secondary and elementary school teachers.

S 36. Principles of Speech Correction. Undergraduate and graduate; credit two hours. Daily except Sat., 12, Associate Professor THOMAS.

Principles governing change of speech habits; causes, classification, and diagnosis of defects; function and organization of the clinic.

S 41. Dramatic Production. Undergraduate and graduate; credit two hours. Daily except Sat., 11. Professor DRUMMOND.

For upperclassmen and graduates. Theory of stage direction; fundamentals of theatrical mounting; survey of practical phases of production. Prerequisite for further work in Dramatic Production.

S 44. Advanced Dramatic Production. Undergraduate and graduate; credit two hours. Hours to be arranged. Professor DRUMMOND.

Laboratory practice in play-p_oduction; readings, reports and conferences; for students whose major work is in Dramatic Production.

S 68. Informal-Study Seminar: Modern Theories of Stage Presentation. Undergraduate and graduate; credit two hours. Wed., 2:30-4:30. Professor DRUMMOND.

For upperclassmen and graduates having sufficient preparation for somewhat advanced work in the theory of the theatre. Readings and reports.

S 90. Technical Theatre Practice. Undergraduate and graduate; credit two hours. Hours to be arranged. The Theatre Staff.

Technical practice coordinated with the regular productions of the Summer Theatre; readings in the techniques involved.

S 95. Make-up. Undergraduate and graduate; credit two hours. Miss RAUSCHEN- [/] BUSCH.

Laboratory in make-up coordinated with the productions of the Summer Theatre; readings and lectures on the history of make-up, of masks, and on period ornament.

S 300. Theses and Special Problems in Drama and Theatre. Graduate; credit two or more hours. Professor DRUMMOND.

COURSES OF INSTRUCTION

Required of regularly registered graduates working on theses. Open to other graduates prepared for the independent study of special topics in drama and the theatre.

Speech Clinic. No credit. For students working under the direction of the department. Associate Professor THOMAS. By appointment.

The courses required for the degree of Master of Arts in Public Speaking and Speech Training are offered through a rotation of courses in a minimum of five summers. Candidates will take, or offer suitable equivalents for S I, S 2, and S IO; six hours in each of the following four divisions: Rhetoric and Public Speaking, S I4, S 20, S 21, S 22, S 28; Speech Improvement and Phonetics, S 32, S 33, S 34, S 36, S 36a, S 36b; Dramatic Production, S 4I, S 42, S 44, S 45, S 48, S 66, S 68, S 90; electives in English, History, Government, Sociology, Psychology. In addition, each candidate will offer four hours in one of the three departmental divisions, and during the final summer will register in S 100 or S 200 for the writing of a thesis or extended essay.

The courses required for the degree of Master of Arts in Dramatic Production are offered through a rotation of courses in a minimum of five summers. Candidates will take, or offer suitable equivalents for S I, S IO, S 4I; in Drama and Theatre six hours from S 45, S 45a, S 48, S 66, S 68; eight hours from S 42, S 44, S 45a, S 90, S 95; in Dramatic Literature, English S 23, English S 48; in Speech Improvement and Phonetics, six hours from S 32, S 33, S 36, S 36a, S 36b; in Rhetoric and Public Speaking, four hours; and during the final summer will register in S 300 for the writing of a thesis or extended essay based on one of the advanced courses.

FINE ARTS

ART HISTORY AND APPRECIATION

S 1b. Introduction to Renaissance and Modern Art. Undergraduate; credit two hours. Daily except Sat., 9. Associate Professor WAAGÉ.

The relationship of art to society in Western Europe from 1400 to the present, as exemplified in the works of the major painters and sculptors.

DRAWING AND PAINTING

All materials needed for these courses may be obtained in Ithaca. A student may register for credit in Course S 2 during successive summers. Students registering this summer for four hours' credit in S 2 will meet classes from 10 to 12 and 2 to 4 daily except Sat. Enrollment in these courses is limited.

S 1. Drawing and Painting. Undergraduate; credit two hours. Daily except Sat., 2-4. Assistant Professor DALY.

Studio work with group discussions and individual criticism. A variety of media such as lithographic crayon, water color, gouache and oils will be used. Previous experience in art not necessary.

S 2. Advanced Drawing and Painting. Undergraduate and graduate; credit two or four hours. Daily except Sat., 10-12. Assistant Professor DALY.

Open to students with a considerable amount of previous training in art. The work assigned will vary according to the needs of the individual student.

S 10. Arts and Crafts. Undergraduate; credit two hours. Daily except Sat., 10–12. Assistant Professor DALY.

Practical work in linoleum printing, color block printing, and stenciling on textiles. No previous experience in art necessary.

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HISTORY AND THE SOCIAL SCIENCES

MUSIC

S 11a. The Art of Music. Undergraduate; credit two hours. Daily except Sat., 12. Associate Professor KUYPERS.

An approach to the rational understanding and enjoyment of the art of music, offered especially for students who have had no technical training in music. This part of the course is devoted to a study of musical structure and the means of musical expression. A large number of phonograph recordings of both old and new music is available to the students in this course.

S 21b. The History of Music. Undergraduate; credit two hours. Daily except Sat., 11. Professor WEAVER.

A survey of the evolution of the art of music, with special reference to the development of musical styles from period to period. This part of the course covers the period from the time of Bach and Handel (approximately 1750) until the present day.

S 117. The Symphony. Undergraduate; credit two hours. Daily except Sat., 10. Associate Professor KUYPERS.

A study of the important symphonies of various periods including the contemporary, with special attention to the symphonies of Haydn, Mozart, Beethoven, Brahms, and Tschaikowsky. The course requires no technical training in music.

S 401. Applied Music. Individual instruction in piano, violin, and voice. Credit one hour in the case of students majoring in music; for other students, no credit. Hours to be arranged. Permission to register, whether with or without credit, should be obtained from Associate Professor KUYPERS.

Individual instruction in piano is offered by Miss JAMES; in violin by Mr. LIPKIN; and in voice by Mr. DUDLEY. Students should consult the instructor as to hours for instruction, and the Secretary of the Department of Music as to hours for practice.

The normal registration involves two half-hour lessons a week for the six weeks of the summer session; the fee is \$24 for the various instruments and \$40 for vocal instruction. A term fee of \$3 is charged for a daily one-hour assignment to a piano practice room. All fees are payable in advance. Payment of these fees does not admit to other Summer Session classes.

Chorus. All men and women interested in singing in a chorus may report to Professor WEAVER at 5 p.m. on Wednesday, July 4, in the choir loft of the Sage Chapel, for discussion of plans and decision on a suitable schedule of rehearsals.

Orchestra. All men and women interested in playing in an orchestra should consult Associate Professor KUYPERS on registration day in Barton Hall or immediately thereafter in his office in the Music Building, 320 Wait Avenue.

HISTORY AND THE SOCIAL SCIENCES

HISTORY

S 9. The British Empire and Commonwealth. Undergraduate and graduate; credit two hours. Daily except Sat., 8. Professor MARCHAM.

This course will deal with the role of the British peoples in recent world affairs. Special attention will be given to the government, economic activities, and geography of Great Britain, Canada, and Australia as they relate to the problems and policies of the United States.

S 16. American History, 1850 to 1900. Undergraduate and graduate; credit two hours. Daily except Sat., 11. Professor GATES.

COURSES OF INSTRUCTION

A general survey of the political, economic, and social growth of the United States from the Compromise of 1850 to the turn of the century.

S 20b. Recent Interpretations of American History. Graduate, or permission of the instructor; credit two hours. Daily except Sat., 9. Professor GATES.

Among the topics to be discussed are western, urban, and European influences, growth of democracy, class and sectional controversies, role of the courts, radicals and reactionaries.

S 46. Recent European History, 1900 to 1939. Undergraduate and graduate; credit two hours. Daily except Sat., 10. Associate Professor GERHARD.

A general survey of the political, economic, and social history of Europe from the beginning of the century to the outbreak of the present world conflict.

S 48b. Central and Eastern Europe in the Period of National Struggles and of the Russian Reforms. Graduate, or permission of the instructor; credit two hours. Daily except Sat., 12. Associate Professor GERHARD.

The period from about 1848 to the end of the 19th century will be covered. The course places major emphasis on Austria-Hungary and Russia. Social, economic, and political changes within countries are treated, as well as the international rivalries of the 19th century.

S 300. Seminar. Graduate; credit one to three hours. Hours to be arranged. Professor MARCHAM.

Students working on critical papers, theses, or other research in history may register for this course.

ECONOMICS

S 41. Labor Economics. Undergraduate and graduate; credit two hours. Daily except Sat., 10. Professor MONTGOMERY.

An introduction to the field of labor economics, including a survey of the determinants of labor's material status, of the trade-union movement, and of the relations of government to labor.

S 45. The Economics of Dissent. Undergraduate and graduate; credit two hours. Daily except Sat., 11. Professor MONTGOMERY.

A study of the literature of social protest; of unorthodox or dissenting economic doctrines; and of the various types of economic organization that have been proposed or attempted, including the Utopias, Marxian Socialism, Collectivism, Anarchism, the Single Tax, Syndicalism, Guild Socialism, Fabian Socialism, Communism, and Fascism.

GEOGRAPHY

S 11. General Geography. Undergraduate and graduate; credit two hours. Daily except Sat., 10. Professor VON ENGELN.

In the lectures the fundamental concepts of geography, direction and position, are considered in connection with map projections and map reading; the regions of the world are discussed in terms of climatic types generally, and then, in particular, with reference to political divisions. The tropical belt of lands is given special attention. The concepts of geopolitics are outlined in their relation to current world problems. The lectures are supplemented by textbook and atlas study to insure appreciation of the broad principles of environmental geography and a knowledge of place locations.

HOME ECONOMICS

SOCIOLOGY AND ANTHROPOLOGY

A I. General Sociology. Undergraduate; credit two hours. Daily except Sat., 10. Professor W. A. ANDERSON.

The analysis and utilization of concepts and principles of sociology, with special emphasis on groups, institutions, social processes, and social change.

S 10. The Family. Undergraduate and graduate; credit two hours. Prerequisite, Course A1 or equivalent. Daily except Sat., 9. Professor Folsom.

The development of the family as a social institution in modern society; the relation between cultural changes and changes in the family pattern; the social psychology of intrafamily relationships.

A 20. Social Problems. Undergraduate and graduate; credit two hours. Prerequisite, Course A1 or equivalent. Daily except Sat., 11. Professor W. A. ANDERSON.

Problems of conflict and disorganization in our changing society, such as crime, unemployment, insanity, social stratification, poverty, and the impact of war upon society. Institutions for relief, self-help, and social planning.

S 60. Social Anthropology. Undergraduate and graduate; credit two hours. Daily except Sat., 8. Professor Folsom.

Problems in the comparative and historical study of cultures, both primitive and complex; environments and technologies; social structures: familial, political, economic, religious, and associational; ritual and symbolic behavior; culture and personality; cultural interests and the problems of divergent interests within and between cultures.

*A 124. Social Case Work. Undergraduate and graduate; credit two hours. Daily except Sat., 9 and 2. A two-week unit course for supervisors of attendance. July 16–28. Assistant Professor Strode.

Admission upon application to the Director of the School of Education before July 7. Will not be offered unless there is an advance registration of at least ten persons by that date.

A study of case work as it has been continuously concerned with the social adjustment of individuals in problem situations. Includes an analysis of the case study, the use and development of social resources, and the principles and skills involved in practice. Class discussion will have special reference to the needs of workers in educational fields.

HOME ECONOMICS

The courses in the Summer Session of the New York State College of Home Economics are planned primarily to meet the needs of teachers, extension workers, social service workers, and others who deal with homemaking practices and problems. Courses aim to strengthen the home economics background of these groups, to discuss problems pertinent to the situations in which they work, and to help them meet these problems more adequately.

Since Summer Session students in the field of Home Economics constitute a mature group, largely made up of professional persons, the approach in courses, even those of an introductory nature, is quite different from that in courses of similar title offered during the regular college year. Hence most of the courses are marked "graduate". Undergraduates are occasionally admitted but only by permission of the instructor; such permission should be secured by correspondence with the instructor in advance of registration.

On the following pages, courses in Home Economics are listed by departments alphabetically arranged. In registering, students should give the course number, the name of the department, and the title of the course. All courses in Home Economics are given in Martha Van Rensselaer Hall.

FAMILY LIFE

E 330. Participation in the Nursery School. Graduate; credit two hours. Limited to twelve students. Open to home economics teachers, and other students with qualifications satisfactory to the instructor. Prerequisite or parallel, course in Child Guidance. For each hour of credit there will be required a total of thirty hours of supervised participation in the nursery school and several conferences each week with staff members. Laboratory hours to be arranged. Conference, M W 12. Associate Professor REEVES.

Observation and study of young children in their homes and in the nursery school group. Participation in their care and guidance. Some experience is offered in planning a child-activity program, and in cooperating with staff and parents concerned. Fee, \$5.

E 360. Dynamics of Personality. Graduate (undergraduates may be admitted by permission of instructor); credit two hours. No prerequisite. A basic course in psychology is desirable. Daily except Sat., 9. Professor DALTON.

A study of the development of the personality. Attention will be given to some of the various ways of studying personality, the basic aspects of growth, and the determinants of personality. Special emphasis will be directed toward an understanding of unconscious processes, the psychological experiences of the growing child, and the directive forces in adult behavior. Fee, \$5.

E 410. Principles of Child Guidance. Graduate; credit two hours. Prerequisite or parallel, Psychology of Childhood and Adolescence. Discussions, daily except Sat., 8. Nursery School observations, three hours a week, to be arranged with the instructor during registration. Professor WARING.

The behavior of young children and the influence of adults upon their learnings will be observed and studied as a basis for developing principles of guidance. Observation will be scheduled at different hours of the day to include typical activities. Fee, \$5.

E 430. Research in Family Life. Graduate; credit one or two hours. Registration by permission of the instructor. Hours by arrangement. Professors WARING and ROCK-WOOD.

FOOD AND NUTRITION

E 130. Nutrition, Elementary Course. Undergraduate; credit two hours. Lectures and discussions, daily except Sat., 10. Assistant Professor STEININGER.

The significance of food selection in achieving and maintaining health. Emphasis on the nutritional needs of normal adults, the nutritive value of various foods, and the construction of adequate diets. Fee, \$2.

E 250. Food Preservation. Graduate and undergraduate; credit two hours. Registration by permission of the instructor. Limited to eighteen students. Discussion and laboratory, T W Th F, 7:30-10. Professor PFUND.

Home food preservation methods including storing, canning, freezing, dehydrating, brining, pickling, and jelly-making depending upon the interests of the group; the principles and techniques involved in each method; the comparative retention of food values; the problems presented by various home situations. Fee, \$8.

E 260. Meal Planning, Preparation and Service. Graduate and undergraduate; credit two hours. Prerequisite, elementary courses in food preparation and nutrition. Limited to sixteen students. Discussions and laboratory, M W F, 11-2. Professor FENTON.

HOME ECONOMICS

Consideration of the problems involved in the selection, planning, preparation, and serving of meals. Emphasis will be placed on organization and management of time, money, and energy. Fee, \$15.

E 300. Special Problems. Graduate; credit and hours to be arranged. Registration with permission of the head of the department and the instructor in charge. Professor PERSONIUS and department staff.

Independent advanced work on a problem not dealt with by other courses in the department. Fee determined by the problem.

E 305. Techniques and Principles of Demonstration. Graduate and undergraduate; credit two hours. Registration by permission of the instructor. Limited to twelve students. Discussions and laboratory, daily except Sat., II-I. Assistant Professor STEININGER.

A course emphasizing the purposes and techniques of demonstrations in food preparation and nutrition as used in teaching, extension, business, and social service. Fee, \$10.

E 320. Experimental Cookery. Graduate and undergraduate; credit two hours. Prerequisite, previous courses in food preparation satisfactory to the instructor. Registration limited to sixteen students. Discussions and laboratory, M T Th F, 2–5. Professor PERSONIUS.

Independent laboratory work in the solving of practical problems in food preparation. Study of methods and techniques used in experimental work. Judging of food products. Fee, \$10.

E 325A. Readings in Nutrition. Graduate and undergraduate; credit two hours. Registration by permission of the instructor. Discussions, daily except Sat., 10. Professor HAUCK.

A critical review of current literature emphasizing the experimental data on which the principles of human nutrition are based. Fee, \$1.

E 350. Problems in Nutrition. Graduate; credit two hours. Registration by permission of the instructor. Discussions and laboratory, daily except Sat., 2-4. Associate Professor HATHAWAY.

Study of the practical problems in the presentation of nutrition information; preparation and use of exhibits, charts, pictures, and simple animal experiments to demonstrate dietary needs. Attention will be given to the individual problems met by the students in their experience with adult and school-age groups. Fee, \$5.

HOUSEHOLD ART

E 330. Repair of Upholstered Furniture and Making of Slip Covers. Graduate. Planned mainly for extension workers and teachers. Credit two hours. Registration limited. Lecture, W, 12; laboratory, M W F, 9–12. Associate Professor WRIGHT and Mrs. COMSTOCK.

Repair of upholstered furniture: gluing of the frame, attaching webbing; tying springs, padding, making muslin undercover, upholstering; repair of an innerspring cushion and repair of the finish on any exposed wood. Estimated cost of materials, exclusive of the outside covering, \$4 to \$8; cost of upholstery tools, if a complete set is purchased, \$3.

Making of slip covers: designing a slip cover for an upholstered piece of furniture; selecting fabrics; making a pattern; cutting, marking, fitting, and sewing the slip cover. Average cost of materials, \$6 to \$10.

Illustrative materials for teaching both processes will be exhibited and their use demonstrated.

COURSES OF INSTRUCTION

Make application to Professor FLORENCE WRIGHT, Martha Van Rensselaer Hall, not later than May 30. Letters will go to applicants not later than June 10, listing supplies to be brought. Furniture will be supplied by the applicant, preferably. Fee, \$2,50.

INSTITUTION MANAGEMENT

E 300. Special Problems. Graduate; credit one or two hours. Credit and hours to be arranged individually. Registration by permission of the instructor. Professor HARRIS and other staff members.

For students qualified to do independent, advanced work on a problem not dealt with by other courses in the department. Fee determined by the problem.

E 350. School Lunch Program. Graduate; credit two hours. Limited to twenty-five students. Lectures and discussions, T Th, 11-1; workshop, W, 2-4:30. Three observation periods in the Home Economics Cafeteria and two field trips will be scheduled in addition to regular class meetings. Professor PARK.

The course is planned for homemaking teachers and others who have not had courses in Institution Management, but who have responsibility for the school lunch. It will deal with problems of interest to the group as a whole, including the initiation, organization and evaluation of the school lunch program, its objectives and functions in terms of the community and the school; procedures that make for efficiency in operation with emphasis on the development of work schedules and records and the selection of food, furnishings and equipment. Fee, \$2.

Note. Students interested in a unit course in Quantity Cookery should consult the Announcement of the School of Hotel Administration.

TEXTILES AND CLOTHING

E 130. Textiles: Clothing Fabrics. Graduate and undergraduate; credit two hours. Daily except Sat., 2-4. Miss WARD.

A study of textile fibers and their identification through simple laboratory tests; technical information and laboratory practice to develop good buying habits and to encourage proper use and care of fabrics and clothing; consideration of some of the factors involved in the production and consumption of textiles; the study of clothing fabrics in the present-day market as a means of developing aesthetic appreciation of quality and design. Estimated cost of materials, \$3. Fee, \$5.

E 200. Fitting and Pattern Making. Graduate and undergraduate; credit two hours. Daily except Sat., 2-4. Associate Professor HUMPHREY.

Laboratory problems include the making of a foundation pattern, its use in adapting commercial patterns to individual figures and in developing original designs. Study of proportion and use of line in relation to individual figures. Dress material provided by the student. Estimated cost of materials, \$15 to \$25. Fee, \$5.

E 210. Dress Selection and Design. Graduate (undergraduates may be admitted by permission of instructor); Credit two hours. Daily except Sat., 10–12. Assistant Professor FROST.

A course planned to give opportunity for creative experience and to help develop appreciation of fine design and skill in achieving beauty of costume in relation to the wearer.

Laboratory practice includes the study of design problems from points of view of personality expression, age, coloring, and figure; experimentation with fabric combinations; color analysis; experience in the use of source material as inspiration for designing and styling clothes; other problems adapted to the needs and interests of the students. Materials to be provided by the student. Estimated cost of materials, \$5. Fee, \$5.

E 235. Science Related to Textiles. Graduate and undergraduate; credit two hours. Prerequisite, knowledge of Organic Chemistry. Registration by permission of instructor. Daily except Sat., 8–10. Miss WARD.

A course concerned with the chemistry involved in the study of fabrics. Laboratory work includes observation of the chemical properties of the major fibers used in clothing and household fabrics; analysis of anti-perspirants; stain removal by methods which can be adapted for home use; performance tests on fabrics and evaluation of these and standard tests. Fee, \$5.

E 320. Problems in Buying Clothing. Graduate and undergraduate; credit two hours. Daily except Sat., 2. Associate Professor BRASIE.

This course is planned to develop knowledge of consumer-buying techniques, appreciation of production and distribution conditions, understanding of consumer responsibility in this field, and skill in buying clothes. The relationship of construction, fabric, design and fit to serviceability and cost of garments; management problems met in choosing and maintaining a satisfactory wardrobe; government regulations affecting clothing; trends in labeling; simplification and standardization; social-economic aspects of fashion; sources of buying information for consumers.

Opportunity will be provided for experience in various techniques involved in keeping up-to-date in the field and in organizing and using the subject matter in working with individuals or families on their clothing problems. Fee, \$5.

E 325. Tailoring. Graduate (undergraduates may be admitted by permission of the instructor); Credit two hours. Daily except Sat., 8–10. Associate Professor HUMPHREY.

Laboratory problems will include the making of a coat or a suit with emphasis on the techniques of tailoring as they apply to construction problems in dressmaking. Materials provided by students. Estimated cost of materials, \$20 to \$30. Fee, \$5.

E 350. Workshop in Textiles and Clothing. Graduate; credit two hours. For extension workers and teachers. It is suggested that students register for A 236b, Workshop in Teaching Home Economics, parallel with this course. Daily except Sat., 2-4. Associate Professor SMITH.

The course will deal largely with today's wartime clothing questions with which families need help. Laboratory practice in improving and simplifying techniques and skills; the preparation of illustrative material and the assemblying of source material.

In order that students may have actual experience with problems of clothing conservation, it is important for each to think through problems in relation to her own situation and come prepared to work on possible solutions of them. Advance correspondence with the instructor in charge of the course is desired. Materials are to be provided by the student. Fee, \$5.

Home Safety Conference. A conference will be held on Friday night, July 13, and all day on Saturday, July 14, for teachers registered in the summer session, who are interested in developing a general background for teaching home safety in homemaking classes in junior and senior high schools. The meetings will be given to discussion and demonstrations of safety as it relates to the house and its surroundings and to the development of safe habits and skills in performing homemaking tasks. The conference is open to any other summer session students who are interested.

On Friday night the meeting will be held in Martha Van Rensselaer Hall, Room 318; on Saturday, in Martha Van Rensselaer Hall Auditorium.

COURSES OF INSTRUCTION

HOME ECONOMICS COURSES-SUMMER SESSIONS 1946 AND 1947

In the summer sessions of 1946 and 1947 a wide variety of courses will be offered by the different departments of the College of Home Economics. The following courses will be included in the list: participation in the nursery school; family relationships; personality development; principles of child guidance; personal counseling; research in child development and family relationships; food preservation; meal planning; advanced nutrition; family nutrition; science applied to food; food buying; home furnishing; school lunch; clothing selection and design; advanced phases of clothing construction; clothing and textile management problems as related to families; buying of clothing and textiles; science related to textiles; clothing workshop.

Courses will also be offered each summer session in at least two of the following areas: management in homes; financial problems of families; household processes and equipment; economic information for consumers.

HOTEL ADMINISTRATION

In 1922 Cornell University established, with the cooperation and financial assistance of the American Hotel Association, a four-year course in Hotel Administration for high school graduates desiring to enter the administrative departments of the hotel business. Many hotel proprietors and managers, who have been unable to take a four-year university course, have asked for shorter courses with less formal entrance requirements.

To meet this demand, all Summer Session work in Hotel Administration is given in unit courses, one to three weeks in length. A circular giving full details of these courses has been issued and will be sent upon request. For this circular, for other information about the work in this department, and for admission to these courses, address Professor H. B. MEEK, Martha Van Rensselaer Hall, Cornell University, Ithaca, N. Y.

The first unit courses in this department begin on June 25. All courses are offered at the undergraduate level. Since these courses are planned chiefly as refresher courses and are not designed to integrate with any program looking toward a degree, academic credit is not ordinarily granted for them. Students who have met the regular admission requirements may, however, receive credit towards the bachelor's degree if they indicate at the time of registration their intention to work for such credit and secure approval thereof.

REQUIREMENTS FOR ADMISSION

Anyone employed in hotel work is eligible for admission. Prospective students will be required to present evidence of good character, of sincerity of purpose, and of interest in hotel work. It is distinctly to the advantage of prospective students to file applications early, in any event not later than June 15.

COURSES OF INSTRUCTION

H 11. Hotel Operation. Credit one hour. H 15. Public Relations. Credit one hour. H 18. Personnel Management. Credit one hour. H 22. Quantity Food Preparation. Credit two hours. H 25. Hotel Stewarding. Credit one hour. H 26. Hotel Menu Planning. Credit one hour. H 32. Hotel Accounting. Credit three hours.

H 33. Interpretation of Financial Statements. Credit one hour. H 36. Food Control. Credit one hour. H 39. Problems in Hotel Accounting. Credit one to three hours. H 71. Hotel Housekeeping. Credit one hour. H 153. Problems in Hotel Administration. Credit one to three hours.

LANGUAGE

LATIN

The work of the six-week Summer Session in the field of Latin study is intended primarily for actual and prospective teachers of the subject in the secondary schools.

A series of advanced courses is offered for those who by their undergraduate training are qualified to enter the Graduate School, or to continue their work therein, as candidates for the degree Master of Arts. Those teachers who by previous training and experience are similarly prepared to pursue courses in Latin on a graduate level will be admitted to the work of the Summer Session without registration in the Graduate School.

Prospective students, graduate and undergraduate, are invited to correspond with Professor FRIEDRICH SOLMSEN, *Goldwin Smith Hall*, *Ithaca*, N. Y. concerning the nature and the scope of the work in Latin. Those who wish to begin their candidacy for the degree of Master of Arts should forward to the office of the Graduate School, on or before June I, such credentials of undergraduate work leading to the degree of A.B. as will entitle them to admission to the Graduate School.

S 1. Teachers Course. Graduate; credit two hours. Daily except Sat., 10. Associate Professor SOLMSEN.

Cicero's speeches from the point of view of his theory of rhetoric.

S 2. Latin Poetry. Undergraduate and graduate; credit two hours. Daily except Sat., 11. Associate Professor SOLMSEN.

Latin love poetry, with special emphasis upon the elegiac poets.

S 4. Theses and Informal Work. Graduate; credit by arrangement; total credit for thesis will not exceed six hours. Associate Professor SOLMSEN,

Direction in the preparation of theses by candidates for the Master's degree, and in the investigation of special problems which arise in connection with the work of the individual teacher.

SPANISH

S 1. Elementary Course. Undergraduate; credit six hours. Twice daily except Sat., 8 and 12, and also M T W Th afternoons, 2:15-3:15. Professor DALE.

The fundamentals of Spanish with special emphasis on acquiring a speaking knowledge of the language. Reading of Spanish prose and practice in composition.

S 50. Advanced Composition and Reading. Undergraduate and graduate; credit variable: one or two hours. Hours to be arranged. Professor DALE.

Weekly lectures, outside reading and written reports under supervision.

MATHEMATICS AND PHYSICAL SCIENCE

MATHEMATICS

S 16. Spherical Trigonometry and Map Projections. Undergraduate; credit three hours. Daily, 9. Prerequisite, plane trigonometry.

A treatment of the trigonometry of the right and oblique spherical triangle, with illustrative examples from terrestrial and celestial navigation. Maps are considered by a study of certain of their properties, and by the solution of problems illustrating their use in navigation.

S 60a, Analytic Geometry and Calculus. Undergraduate; credit three hours. Daily, 10. Prerequisite, Trigonometry. Professor B. W. JONES.

A beginning course in the subject.

S 120. Theory of Equations. Undergraduate or graduate; credit three hours. Daily, 8. Prerequisite, Advanced or College Algebra. Professor B. W. JONES.

Roots of unity, constructions with ruler and compasses, methods of isolating and approximating roots of equations.

CHEMISTRY

Because of other demands upon the staff of the Department of Chemistry, it is impossible to offer the usual courses in this subject.

GEOLOGY AND GEOGRAPHY

Lecture Courses

S I and S 5. General Geology and Physiography. Introduction to Earth Science. Given as two correlated courses, as indicated below, either of which may be taken separately for two hours credit, but which, taken together, for four hours credit, constitute the lecture and textbook part of Geology A as given in the regular session. S I and S 5, together with S9 and S IO, 6 hours credit, are counted the equivalent of Geology A, the six hour basic course in elementary general geology and physiography. Courses S 5 and S 9 and S IO are counted the equivalent of Geology IOO.

S I. Dynamic Geology and Physiography. Undergraduate; credit two hours. Daily except Sat., 8. Professor von ENGELN.

The content of this course includes the topics: history of geological ideas; processes of weathering and their results on land-forms; action of streams and valley forms; the morphology of deserts; oceanography; marine erosion; mountain topography; phenomena of glaciers and glaciation; nature of continents and ocean basins; geological climates; orogenies.

The lectures are illustrated by lantern slides and are correlated with study of a textbook. Students registering in Course S I are advised to take also Course S 5 and, for a general course in elementary geology, should, further, take Courses S 9 and S 10.

S 5. Petrologic, Structural, and Historic Geology. Undergraduate; credit two hours. Daily except Sat., 11. Assistant Professor BURFOOT.

Lectures and correlated textbook readings upon the following topics: origin of the earth; materials of the earth's crust and their arrangement; diastrophism; earthquakes; vulcanism; structural phenomena; metamorphism; origin of mountains; ground water; caves; age of the earth and geological time periods; the fossil record; origin of man.

S 11. General Geography. Undergraduate and graduate; credit two hours. Daily except Sat., 10. Professor VON ENGELN.

In the lectures the fundamental concepts of geography, direction and position, are considered in connection with map projections and map reading; the regions of the world are discussed in terms of climatic types generally, and then, in particular, with reference to political divisions. The tropical belt of lands is given special attention. The concepts of geopolitics are outlined in their relation to current world problems. The lectures are supplemented by textbook and atlas study to insure appreciation of the broad principles of environmental geography and a knowledge of place locations.

Laboratory and Field Courses in Geology and Physiography

S 9. Geology Laboratory Course. Undergraduate; credit one hour. M F, 1:40-4. Assistant Professor BURFOOT.

This course is designed to supplement courses S I and S 5. A study is made of the commoner rocks and minerals; of the commoner structural phenomena; of the inter-

pretation and uses of topographic and geologic maps; and of the characteristic life forms developed in the different geological periods. Laboratory fee, \$1.00.

S 10. Geology and Physiography Field Course. Undergraduate and graduate; credit one hour. M 1:40-4:30 and two Saturdays, all-day. Assistant Professor BURFOOT.

This course should be elected by all students in courses S I and S 5 who desire to secure an appreciation of field-observation and field-interpretation of geologic and physiographic phenomena.

Students are required to take field notes and to write a report on each excursion. Marks are based on the contribution made by the student to the field discussions and on the degree of excellence of the reports submitted. Mimeographed outlines of the excursions are to be secured from the bookstores by each student.

Each excursion entails some cost for bus fare. For first excursion bring 10c. An inclusive rate will be announced then for the rest of the trips and is to be paid in advance, probably \$7.00 to \$9.00. First excursion Monday, July 9.

Outline of Excursions

- 1. Cascadilla Gorge. Monday, July 9.
- 2. Snyder Hill. Monday, July 16.
- 7. Northern Pennsylvania. Saturday, July 21. (All-day trip).
- 3. Portland Point. Monday, July 23.
- 8. Sand Dunes of Lake Ontario. Saturday, July 28. (All-day trip)
- 4. Enfield Gorge and Falls. Monday, July 30.
- 5. Terminal Moraine; Kame, Esker, and Outwash Deposits. Monday, August 6.

Further details regarding these excursions may be obtained on registration day.

METEOROLOGY

A 1a. **Meteorology.** Undergraduate and graduate; credit two hours. Lectures and discussions, daily except Sat., 10. Professor MORDOFF.

This course is adapted to the needs of teachers and students in subjects in which the weather is an important factor, particularly teachers of general science, physical geography, and agriculture. It is designed to acquaint the student with the laws governing the primary and secondary circulation of the atmosphere, and with the development, progression, and conditions that attend cyclones, tornadoes, and other atmospheric phenomena. Attention is given to the principles and practice of weather forecasting from weather maps and from local observations. Students taking the course at the graduate level will be assigned additional work.

A 1b. Meteorology, Laboratory Course. Undergraduate and graduate; credit one hour. Tues. and Thurs., 11-1, or other periods to be arranged. Must be accompanied by course A 1a. Professor MORDOFF.

The work consists in the study of the principal weather and climatic elements with the aid of maps, charts, and instruments. The various meteorological instruments will be studied, as well as the methods of taking and recording the observations. Opportunity will be given the student for making practice forecasts. Students taking the course at the graduate level will be assigned additional work.

A 2. General Climatology. Undergraduate and graduate; credit one hour. Lectures and discussions, M W F, 11. Should be accompanied or preceded by course A 1a. Professor MORDOFF.

This course is designed to give a general knowledge of Climatology, and of the various climates of the United States, with emphasis on those of New York States.

A 6. Special Problems. Undergraduate and graduate; credit and hours by arrangement. Professor MORDOFF.

Special work in meteorology and climatology may be elected by qualified students with the permission of the instructor.

PHYSICS

*S 3. Introductory Experimental Physics: Mechanics, properties of matter, sound, and heat. Credit three hours. Lectures: daily, 9. Recitations: daily, 8. Laboratory: Four 2-hour periods a week as assigned.

The work in this course will be covered during the first three weeks of the Summer Session.

Courses S 3 and S 4 are designed for teachers in secondary schools who have had comparatively little training in physics in College and/or whose teaching experience in the subject has been one year or less. It will, however, be open to others on approval of instructor in charge.

*S 4. Introductory Experimental Physics: Electricity, magnetism, and light. Credit three hours. Lectures: daily, 9. Recitations: daily, 8. Laboratory: Four 2-hour periods a week as assigned.

This course is a continuation of Course S 3 and will be given during the last three weeks of the Summer Session. Prerequisite, Course S 3 or approval of instructor in charge.

*S 7. Introductory Experimental Physics. Credit four hours. This course consists of course S 3 and two 2-hour computing periods a week as arranged. It will not be given for fewer than five registrants.

*S 8. Introductory Experimental Physics. Credit four hours. This course consists of Course S 4 and two 2-hour computing periods a week as arranged. It will not be given for fewer than five registrants.

S 60. Physical Experiments. Credit two hours. Prerequisites, introductory college physics (including two semester-hours of laboratory) and trigonometry. Selected experiments available for those who have completed introductory calculus. Two 3-hour laboratory periods a week as arranged.

S 65. General Physics. Credit 4 hours. Prerequisites, one year of college physics and a working knowledge of algebra and plane trigonometry. Registration in course subject to approval of instructor. (Correspondence prior to day of registration is invited). Recitations: daily except Sat., 11. Two 2½-hour laboratory periods and two 2½-hour computing periods a week as assigned. Professor GIBBS and Associate Professor TOMBOULIAN.

The course is intended primarily for experienced secondary school teachers of physics who desire a somewhat detailed and unified survey of topics that have been prominent in recent developments in physics. Selection will be made from the following fields: (1) Electricity—electric and magnetic fields, steady and variable current phenomena; (2) Electron physics—electrons in metals, thermionic and photoelectric emission, vacuum tube circuits; (3) Atomic physics—quantum theory, spectra, radiation, and nuclear phenomena.

S 106. Advanced Laboratory Physics. Credit one hour. Prerequisites, two years of college physics and a working knowledge of calculus. Two 3-hour laboratory periods a week as assigned.

PSYCHOLOGY AND MENTAL HYGIENE

The experiments will be chosen to meet the needs and previous experience of the individual student. Apparatus and equipment available for work in a wide variety of fields, such as: optics, spectroscopy, x-rays, electrical measurements, electronics, and high temperature measurements. The experiments may be brief, so that a wide range of topics will be covered, or a longer time may be spent on each of a relatively few experiments.

S 315. Special Topics for Investigation. Students who are prepared to profit by the use of the library and laboratory facilities of the Department in the study of some special topic or in investigation will be given an opportunity to do so. This work may be taken in connection with or independently of any of the above courses and will be under the direction of one or more members of the staff, with whom frequent conferences should be arranged. Credit varies with the nature and amount of work done. Students interested are advised to correspond with Professor GIBBS.

PHYSICAL EDUCATION

S 18a. Private Instruction in Tennis. No credit. For men and women. Hours to be arranged. Mr. LEWIS. A special fee is charged, \$10 for ten lessons.

S 18b. Private Instruction in Golf. No credit. For men and women. Hours to be arranged. Mr. HALL. A special fee is charged. \$15 for twelve lessons.

PSYCHOLOGY AND MENTAL HYGIENE

PSYCHOLOGY

S 1. Elementary Psychology. Undergraduate; credit two hours. Daily except Sat., 9. Dr. BITTERMAN.

The course will be accepted as a prerequisite for subsequent courses and may be credited toward the satisfaction of the major requirement in psychology. The basic problems and principles of human psychology. The course is designed as a foundation for the study of experimental, social, animal, and child psychology, for psychotechnology and for the psychology of the abnormal. Textbook: Boring, Langfeld and Weld, *Intro-duction to Psychology*.

S 10. Social Psychology. Undergraduate and graduate; credit two hours. Daily except Sat., 8. Dr. BITTERMAN.

Personality and the cultural pattern; social factors in motivation, emotionality, perception, and thought. The nature of social norms and groupings, processes of social interaction, and techniques of social control. The contributions of experimental psychology to problems of morality, industrial conflict, minority relations, war, and social change.

S 15. Abnormal Psychology. Undergraduate and graduate; credit two hours. Daily except Sat., 11. Professor LIDDELL.

A consideration of normal personality; minor and temporary deviations from the normal; insane and feeble-minded personalities. Methods of investigation and treatment.

S 22. Genetic Psychology. Undergraduate and graduate; credit two hours. Daily except Sat., 10. Assistant Professor BAYNE.

Man's behavioral development through infancy, childhood, adolescence, maturity, and old age. The emphasis will be upon securing a clear picture of the individual lifecourse and its several stages. The study of the development of behavior in relation to general psychology.

COURSES OF INSTRUCTION

MENTAL HYGIENE

S 1. Mental Hygiene. Undergraduate and graduate; credit two hours. Daily except Sat., 9. Dr. DARLING. Permission of the instructor should be obtained before registering for this course.

The human being considered as a psychobiologic unit in a complex environment. Discussion of (1) general personality structure, (2) maladjustment factors functioning at different ages from infancy through life, (3) the more common maladjustment symptoms and mental illnesses and their prevention.

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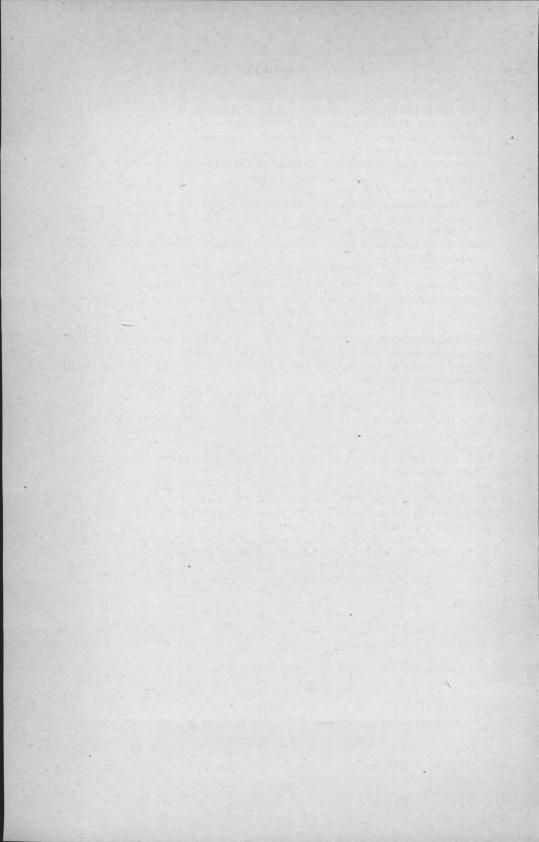
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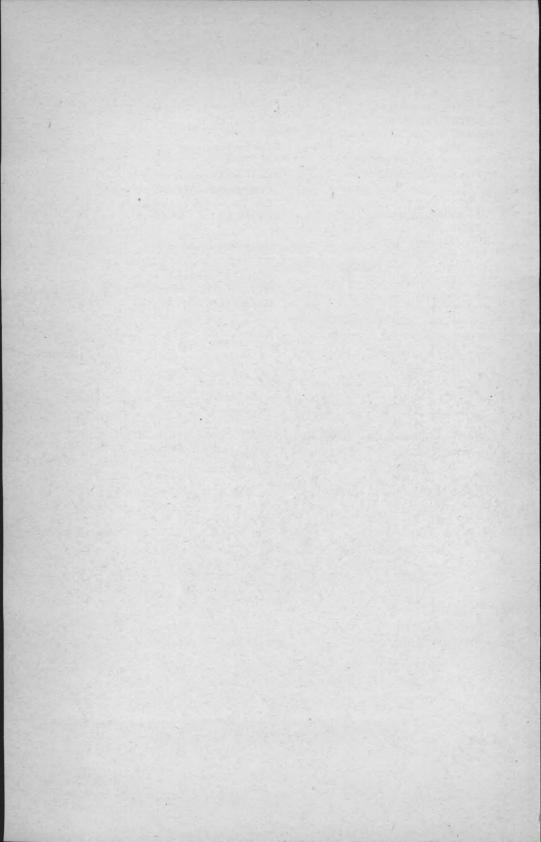
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Because the edition of this Announcement is limited, persons planning to register in the Summer Sessions are asked to bring their copies with them.



CORNELL UNIVERSITY SUMMER SESSION, 1945 Application for Admission

me Family name	Full first name	Middle Name
dress		
Street and number	City or town	Zone State
School, College, and Gradua	ate Training:	
Please check items to indic following the items checke	cate your training, d.	and fill out blanks new
Now in High School		•
City or town	State	To graduate (year)
High School Graduate	e	
City or town	State	Year of graduation
Now in College or No	rmal School	
Institution	Location	To graduate (year)
College or Normal Sci	nool Graduate	
Institution	Location	Degree Year
Now in Graduate Sch		Degree 1 eur
- Institution		-
Holder of Advanced I	Location Degree	Degree expected Year
tel Subserver ale and dat	und the manufacture of	
Institution	Location ·	Degree or degrees, Year granted
If you are applying for add University, or of another i		
Institution	School or college	To enter (date)

If you have attended a school of a sort not listed above (a technical institute, for example), give pertinent information here.

B. School Position:

Toocher

If you hold a position of any kind in a school, college, or other educational institution, please check items to indicate your position and fill out blanks next following the items checked.

i cachei		
School	Location	Position and subject or grad
Supervisor, Prin	cipal, Superintendent,	etc.
School	Location	Positio
Assistant or Inst	ructor in Normal Scho	ol or College
Institution	Location	Position and subje
Assistant Profes	sor, Professor, etc.	
Institution	Location	Position and subje
.Other School Po	sitions	
Institution	Location	Position and subje

C. Other Professional, Scientific, or Business Position:

If you hold a professional, scientific, or business position and your proposed attendance at the Cornell Summer Session is connected with this position, please give details below. (Examples: librarian in public library; research chemist; landscape architect; county agricultural agent; hotel room clerk).

D. Reason for Proposed Attendance at Cornell Summer Session:

In not more than two or three sentences state your purpose in attending the Cornell Summer Session.

E. Proposed Courses

Mail this application to the Director of the Summer Session, Cornell University, Ithaca, N. Y.