

SCHOOL OF EDUCATION

1959-1960

CORNELL UNIVERSITY ANNOUNCEMENTS

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FACULTY

As of April 1, 1959

Deane W. Malott, A.B., M.B.A., LL.D., D.C.S., President of the University.

Sanford S. Atwood, B.A., M.A., Ph.D., Provost of the University.

Frederick H. Stutz, Ph.D., Head of the Department of Rural Education and Dean of the School of Education.

J. Stanley Ahmann, Ph.D., Professor of Rural Education.

Howard G. Andrus, Ph.D., Director of the Educational Placement Bureau and Associate Professor of Rural Education.

Joe P. Bail, M.S., Assistant Professor of Rural Education.

Alfred L. Baldwin, Ph.D., Professor of Child Development and Family Relationships and Head of the Department.

Frank C. Baldwin, M.A., Dean of Men.

Sara E. Blackwell, Ph.D., Professor of Home Economics Education, and Head of Department.

Mrs. Dorothy V. N. Brooks, Ed.D., Dean of Women and Professor of Education.

Julian Edward Butterworth, Ph.D., Professor of Rural Education (Educational Administration), Emeritus.

Ralph N. Campbell, M.B.A., Professor of Industrial and Labor Relations.

Samuel J. Catalfano, M.S., Supervisor of Practice Teaching in Modern Languages, Ithaca Public Schools.

Cora B. Chase, M.S., Professor of Rural Education (Home Economics Education), Emeritus.

Harold Robert Cushman, Ph.D., Associate Professor of Rural Education (Agricultural Education).

Ethelwyn G. Cornelius, M.S. in Ed., Instructor in Home Economics Education.

Arthur L. Deering, D.Sc., Professor of Extension Education.

Dora M. DePew, M.A., Supervisor of Practice Teaching in Mathematics, Ithaca Public Schools.

Theodore H. Eaton, Ph.D., Professor of Rural Education, Emeritus.

George W. Ebeling, Ph.D., Associate Professor of Rural Education.

Margaret Elliott, M.S., Instructor in Home Economics Education.

Lynn A. Emerson, Ph.D., Professor of Industrial Education, Emeritus.

- Robert H. Ennis, Ph.D., Assistant Professor of Rural Education (Secondary Education).
- Jean Failing, Ph.D., Professor of Home Economics and Coordinator of Resident Instruction, College of Home Economics.
- John M. Fenley, Ph.D., Assistant Professor of Extension Education.
- Richard B. Fischer, Ph.D., Associate Professor of Rural Education (Nature and Conservation Education).
- Felician F. Foltman, Ph.D., Associate Professor of Industrial and Labor Relations.
- Frank S. Freeman, Ed.D., Professor of Psychology and Education.
- Marvin D. Glock, Ph.D., Professor of Rural Education (Educational Psychology), and Director, University Testing and Service Bureau.
- Eva L. Gordon, Ph.D., Professor of Rural Education (Nature Study), Emeritus.
- Eloise T. Hadlock, M.S., Supervisor of Practice Teaching in Science, Ithaca Public Schools.
- Charles W. Hill, Ph.D., Professor of Rural Education (Agricultural Education).
- Lawrence B. Hixon, Ed.D., Associate Professor of Education.
- Edwin R. Hoskins, Ph.D., Professor of Rural Education (Agricultural Education), Emeritus.
- Margaret Hutchins, Ph.D., Professor of Home Economics Education, Emeritus.
- Philip G. Johnson, Ph.D., Professor of Rural Education (Nature and Conservation Education).
- Robert C. Jones, M.S., Assistant Professor of Rural Education (Agricultural Education).
- Paul J. Kruse, Ph.D., Professor of Rural Education (Educational Psychology), Emeritus.
- Claude L. Kulp, M.A., Professor of Education.
- J. Paul Leagans, Ph.D., Professor of Extension Education.
- Clyde B. Moore, Ph.D., Professor of Education, Emeritus.
- Helen Moser, M.A., Associate Professor of Home Economics Education.
- A. Gordon Nelson, Ph.D., Professor of Educational and Vocational Guidance.
- Helen Y. Nelson, Ph.D., Assistant Professor of Home Economics Education.
- Milacent G. Ocvirk, M.A., Director of English, Ithaca Public Schools.
- E. Laurence Palmer, Ph.D., Professor of Rural Education (Nature Study and Science Education), Emeritus.
- H. Irene Patterson, M.S., Associate Professor of Home Economics Education.
- Walter Pauk, Ph.D., Assistant Professor of Education and Director of the Reading Improvement Program.

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- Isabel Peard, Ph.D., Associate Professor of Education, Director of Student Deans and Head Residents.
- Curtis L. Pfaff, M.A., Supervisor of Practice Teaching in Social Studies, Ithaca Public Schools.
- Katherine M. Reeves, M.A., Professor of Child Development and Family Relationships.
- Kathleen Rhodes, Ph.D., Associate Professor of Home Economics Education.
- Verne N. Rockcastle, Ph.D., Associate Professor of Rural Education (Science Education).
- William A. Smith, Ph.D., Professor of Rural Education and Director, Division of Summer Session and Extramural Courses.
- Rolland M. Stewart, Ph.D., Professor of Rural Education, Emeritus.
- Flora M. Thurston, M.A., Professor of Home Economics Education, Emeritus.
- Frederick K. T. Tom, Ph.D., Assistant Professor of Rural Education (Agricultural Education).
- Helen L. Wardeberg, Ph.D., Associate Professor of Rural Education (Supervision and Elementary Education).
- Ethel Waring, Ph.D., Professor of Child Development and Family Relationships, Emeritus.
- Andrew Leon Winsor, Ph.D., Professor of Rural Education, Emeritus, and Director, Comparative Extension Education Project.

THE SCHOOL OF EDUCATION

THE SCHOOL OF EDUCATION at Cornell was established to provide opportunity for basic and advanced study and research in education. It is an organization through which the various colleges of the University cooperate to offer a balanced program of general and professional education for students who plan to serve in this field. Courses of study arranged in the School prepare students for positions as teachers in elementary schools, high schools, and colleges; school principals, superintendents, and supervisors; and guidance counselors; and for various opportunities in extension work and adult education. Advanced preparation is provided for positions in research and teaching in colleges and universities.

It is the purpose of the School of Education to direct the basic preparation of students so that maximum strength in the arts and sciences may be integrated with a broad understanding of human development, social processes, and professional work. As an integral part of a university rich in scientific, cultural, and professional programs, the School of Education provides unusual advantages. Furthermore, the selection policy of the School affords an intimate relationship of faculty and students and permits personal direction of individuals in terms of their background, abilities, and professional interests. In addition to the academic program on campus, students are given an opportunity to observe and teach under qualified supervisors in the schools of representative New York State communities, so that theory and practice are combined in their preparation.

Cornell University offers many advantages and opportunities for students preparing to teach. The students in education attend classes with all other students in the University; thus they have access to the strong subject matter courses and laboratories in the various colleges. They live in the dormitories and fraternities with students preparing for other professions and occupations and enjoy the social and educational stimulation that a large university provides.

The School has been authorized to act as agent for the State Department of Education in recommending its students for certificates to perform specified educational services in New York State, and it recommends such students to the proper educational authorities in other states for similar credentials. Candidates who have completed the appropriate programs at Cornell may be recommended for one or more of the following credentials: elementary school teacher, secondary school teacher, supervisor, principal or superintendent, school counselor.

Undergraduates may work toward teaching certification while meeting the degree requirements of their colleges. Students who desire to complete both certification and degree requirements in a minimum of time are advised to consult with official counselors in the School of Education as early as possible. The Educational Placement Bureau provides assistance in obtaining appropriate employment for each candidate who has completed a program of professional preparation.

HOUSING

MEN . . . Cornell University provides, on the campus, dormitories for about 2,100 men. Cafeteria and dining service is provided in Willard Straight Hall, the student union building. In addition, there are cafeterias in Van Rensselaer and Stocking Halls. Male students are not required to live in dormitories and are individually responsible for making their own living and dining arrangements. As a convenience for those who wish to live in dormitories, application forms will be mailed to each male candidate for admission as a freshman or a transfer student at the time of notice of provisional acceptance. Housing in dormitories can be guaranteed for undergraduate men who are admitted and have filed dormitory applications by June 1.

Male graduate students may make application for dormitory housing directly to the Department of Residential Halls, Edmund Ezra Day Hall.

Off-campus housing may be obtained in private homes and rooming houses. Inquiries should be addressed to the Off-Campus Housing Office, Edmund Ezra Day Hall.

WOMEN . . . The University provides dormitories for undergraduate and graduate women. These residences are supplemented by fourteen sorority houses near the dormitories. With few exceptions all undergraduate women students are required, under University policy, to live and take their meals in Residential Halls units or sorority houses (for members only). Permission to live elsewhere in Ithaca is granted only under exceptional circumstances upon written application to the Office of the Dean of Women, Edmund Ezra Day Hall. An application form for living accommodations for undergraduate women will be sent with the notice of acceptance from the Office of Admissions. Graduate women should make application for dormitory housing to the Department of Residential Halls, Edmund Ezra Day Hall.

MARRIED STUDENTS . . . The University operates Pleasant Grove Apartments and the Cornell Quarters, housing developments near the campus. Housing is also available in privately owned properties in Ithaca and the vicinity. Information may be obtained from the Department of Residential Halls.

UNDERGRADUATE STUDY

ADMISSION OF UNDERGRADUATES

A STUDENT planning to apply for admission to one of the undergraduate colleges should write to the Director of Admissions, Edmund Ezra Day Hall, Ithaca, N.Y., indicating the college in which he wishes to matriculate. A candidate for admission as a freshman in an undergraduate college must satisfactorily complete secondary school subjects carrying a value of a sufficient number of entrance units. The subjects in which these units may be offered, the number of units that may be credited in each subject, and the units required in specific subjects by the several divisions of the University, together with other general information about admission requirements and costs at Cornell, are described in the *General Information Announcement*. Persons outside the campus may obtain any Cornell Announcements by writing to the Announcements Office, Edmund Ezra Day Hall. An enrolled student should inquire for Announcements in the administrative office of his own college or school at Cornell.

GUIDANCE AND SELECTION OF UNDERGRADUATES

In most cases the student will be assigned to a regular college adviser on entrance. In order that the prospective teacher may secure advice regarding his professional program, he should, as early as possible in his university experience, consult with the official adviser in his teaching field. A list of these advisers is given on page 10.

As the student proceeds in his preparation for teaching, appraisal will be made of the development of his abilities, understandings, and appreciations, and of such other qualities as make for success in teaching. Special determinations will be made as to the fitness of the candidate to continue prior to the period of student teaching in the senior year. Committees responsible for the selection in the several fields will be concerned with the personal and physical fitness of the candidate, his emotional and intellectual equipment, his general and special academic competence, his familiarity with current affairs, and his ability to use the English language.

Knowledge of the student gained by his advisers and his instructors, supplemented by the health record and the more formal measures such as psychological and personality tests, will provide information useful in judging the strictly personal factors involved. In general, each stu-

dent will be expected to maintain a standing in scholarship at least equal to the average of his college. A steady growth in the use of English will be expected of each student. Standards of accomplishment will be set up for the several groups of prospective teachers, beginning in the freshman year, and checked at frequent intervals throughout the period of preparation.

These requirements and standards may be supplemented by additional requirements in the several fields in order to ensure a high degree of competence at all levels and to meet the special demands in different areas of teaching. Students entering the program later than the sophomore year will be expected to meet the standards and requirements indicated above and may find it necessary to remain for an additional term or summer session.

Students planning to teach should consult these official advisers:

Academic Subjects except Science: Associate Professor L. B. Hixon, 112 Stone Hall.

Agriculture: Assistant Professor F. K. T. Tom, seniors and freshmen; Associate Professor H. R. Cushman, juniors; and Assistant Professor B. A. Gaylord, sophomores. Stone Hall.

Elementary Education: Associate Professor Helen Wardeberg, 108 Stone Hall.

Home Economics: Associate Professor Helen Moser, East Wing 4, Van Rensselaer Hall.

Development of Human Resources: Professor R. N. Campbell, Industrial and Labor Relations Building.

Science: Professor P. G. Johnson, Associate Professors R. B. Fischer and V. N. Rockcastle, 4 Stone Hall.

OTHER REQUIREMENTS FOR ADMISSIONS

Information pertaining to veterans and living facilities is contained in the *General Information Announcement*. For requirements in military science and physical education, see the *Announcement of the Independent Divisions and Departments*. Prospective students should also note the health requirements outlined in the Announcements of the various colleges and schools.

A student pursuing the undergraduate program will pay the tuition and fees of the college in which he is matriculated as a candidate for the Bachelor's degree. See the *General Information Announcement*.

The University maintains a placement service in the Office of Financial Aids, Edmund Ezra Day Hall, for handling requests for part-time employment. Opportunities arise for normal types of student employment.

UNDERGRADUATE PROGRAMS OF PROFESSIONAL PREPARATION

The requirements for teaching certificates vary considerably throughout the country. A student preparing to teach should not assume that the completion of the requirements for a degree at Cornell, including courses in education, automatically qualifies him for a teaching certificate in the locality in which he plans to teach. Special requirements of the state or city in which the student expects to teach should be a guide in planning a teacher training program. Questions concerning these requirements should be referred to the student's adviser in education.

Observation and directed teaching for academic teachers and elementary school teachers are conducted in selected schools of Ithaca and near-by communities. Apprentice teaching also will be done in off-campus schools, selected primarily to provide better than average opportunity for experience and growth. Students engaged in student teaching in home economics or apprentice teaching in vocational agriculture will live in the school community during the period of this experience and will be expected to participate in community life.

TEACHERS OF ACADEMIC SUBJECTS

All prospective teachers of academic subjects must meet the graduation requirements of the college where registered. For full information consult the appropriate college Announcement.

To teach an academic subject in the public high schools, the prospective teacher must complete considerable course work in the area to be taught and must also fulfill certain minimum education course requirements as prescribed by the state.

PROVISIONAL CERTIFICATION

Programs in the academic subjects have been established for the four undergraduate years, which meet college requirements and provide the preparation needed for teaching in a secondary school. The provisional certificate received upon completion of a program qualifies the prospective teacher to obtain a teaching position. The programs vary in extent and in number of prescribed courses. It is desirable that one of the programs below be selected, although combinations may be arranged to meet individual needs.

ENGLISH. . . Students majoring in English should consult the chairman of that department, preferably during the second term of their freshman year, before making out their programs for the sophomore year. Other students planning to teach English are invited to consult the chairman, who will be glad to offer help in selecting courses.

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A course in advanced composition is required. This course should be selected with the approval of the English department. It is suggested that prospective teachers of English take in their sophomore year English 251-252, and that they later take at least one advanced course in poetry, one in drama, and one in the novel. In addition, courses in speech and in American literature are recommended.

The state requirement for provisional certification in English is 24 hours including English and American literature, and advanced composition. Six hours of speech may be included as part of the total hour requirement.

LATIN...Students desiring to prepare themselves to teach Latin in the secondary schools should fulfill the requirements of the major in classics with emphasis on Latin. A combination may be made between Latin and another field of study which will satisfy the major requirements and prepare prospective teachers in both subjects.

The state requirement for provisional certification in Latin is 18 hours of Latin.

MODERN FOREIGN LANGUAGES...Students desiring to prepare themselves to teach the modern foreign languages in secondary schools should study carefully the offerings of the Division of Modern Languages and the several departments of literature or linguistics, in French, German, Russian, and Spanish. For detailed descriptions of work involved for the completion of the majors in these fields, see the Departments of German Literature, Romance Literature, and Russian Literature, and the Division of Modern Languages in the *Announcement of the College of Arts and Sciences*.

The state requirement for provisional certification in modern languages is 18 hours in the language to be taught; 6 hours of entrance credit may be included as maximum. In addition, the student must pass a written state examination in the language or present evidence of an unusually thorough preparation in the language without examination.

MATHEMATICS...The Department of Mathematics recommends as minimum preparation for teaching the subject: Mathematics 161, 182, 240 (prerequisite 162), 241 (prerequisite 240 or 163), at least one of 371, 401, 501, and at least 9 hours from 183, 201, 372, 402, 502, 611, 612, 661, 662, 711, 712 or more advanced courses. Students wishing to take any course above 183 should confer with the instructor concerned before registering. They should bear in mind that the teaching of mathematics is frequently combined with the teaching of physical science or general science.

This program has been approved by the State Education Department and also meets the special requirements for permanent certification.

The state requirement for provisional certification in mathematics is 18 hours. Three credit hours will be permitted as advanced credit for each year of high school mathematics up to a total of nine credit hours. The state requires the completion of 18 hours of mathematics including an introduction to differential and integral calculus. The state also recommends the inclusion of mathematics of finance, history of mathematics, and statistics.

SCIENCE... Teachers of science may be prepared either through the College of Agriculture or through the College of Arts and Sciences. In the College of Agriculture the training includes 36 hours of basic courses in physical, biological, and earth sciences, and approximately 24 hours of advanced courses in one or more of these areas. The program in the College of Arts and Sciences is based on approximately 20 to 30 hours in a major field, ordinarily chosen from botany, chemistry, physics, or zoology, and additional courses in various sciences to make a total of approximately 65 hours in science. In addition, completion of the minimum certification requirement of 9 hours in mathematics is advisable.

Students planning to teach science in secondary schools should take psychology (Rural Education 10 or Psychology 101) during their freshman or sophomore years.

In the junior year they should take Educational Psychology (Rural Education 111) and Methods of Teaching Science in Secondary Schools (Rural Education 128). They complete the required courses in the senior year by registering for Practice in Teaching Science in Secondary Schools (Rural Education 129). Social Foundations of Education (Rural Education 190), and electives to meet the 18 hours required for a provisional certificate may be scheduled in the last two years. The basic academic requirements include a year's course in botany, zoology, chemistry, and physics. Concerning additional courses the student should consult the chairman of the science education section, Stone Hall.

Students preparing to teach science in junior or senior high schools are expected to complete 65 hours of science and mathematics in the four undergraduate years. This will include a variety of science courses as needed for general science and biology plus additional courses to develop some depth of training for the special high school sciences of chemistry and physics. All students are expected to prepare for at least general science and biology teaching.

New York State requires a minimum of 18 distributed science hours for a provisional certificate to teach general science and 12 hours in each specific area for provisional certificates to teach each of the biology, chemistry, physics, and earth science areas.

SOCIAL STUDIES. . . . In social studies the student may major in history, government, or economics, although concentration in history is preferable. The basic program at Cornell should include at least 18 hours of history and 6 hours of government. Courses in either geography or economics should also be taken. Depending upon the major subject selected, the number of hours in the program will aggregate from 48 to 60. For detailed descriptions of courses the student should refer to the *Announcement of the College of Arts and Sciences*.

The state requirement for provisional certification in social studies is 24 hours including 12 hours in history, of which 6 must be in American history, plus one course in each of two of the following fields: political science, economics, and geography.

REQUIRED PROFESSIONAL EDUCATIONAL COURSES

Students preparing to teach academic subjects in the public high schools of New York must complete the following program of courses:

**PROVISIONAL CERTIFICATION,
UNDERGRADUATE PROGRAM**

	<i>Hour Credit</i>
Field One: Educational psychology	3
Psych. 103. Educational Psychology (Prerequisite, General Psychology)	
or	
R. E. 111. Educational Psychology	
Fields Two and Three: Methods and materials	9-12
A. For science students:	
R. E. 128. Methods of Teaching Science in Secondary Schools—3 hours	
R. E. 129. Practice in Teaching Science in Secondary Schools—6 or 12 hours	

B. For all other academic students: *Hour Credit*

- Ed. 130. The Art of Teaching*—10 hours
 (Special Methods in Teaching Area—3 hours)
 (Conferences on Teaching Problems—1 hour)
 (Observations and Student Teaching—6 hours)
- Ed. 130A. Observation and Student Teaching including
 Conferences on Teaching Problems†—7 hours
- Ed. 130E. Methods of Teaching English in Secondary
 Schools†—3 hours
- Ed. 130L. Methods of Teaching Languages in Second-
 ary Schools†—3 hours
- Ed. 130M. Methods of Teaching Mathematics in
 Secondary Schools†—3 hours.
- Ed. 130S. Methods of Teaching Social Studies in Second-
 ary Schools†—3 hours.

Field Four: History, principles and/or philosophy of
 education 3
 R. E. 190. Social Foundations of Education

Field Five: Elective (Some suggested courses. Permission of
 official School of Education adviser is required.) 2 or 3

R.E. 251. Educational Measurement—3 hours
 R.E. 282. Educational and Vocational Guidance—2 hours
 R.E. 290. Secondary Education—3 hours
 Ed. 315. Reading in the Secondary School—2 hours
 French 351. French for Teachers—3 hours
 R.E. 117. Adolescent Psychology (For purposes of certifica-
 tion R.E. 117 may be taken after but not before taking
 R.E. 111)—2 hours

TOTAL 18-21

The program will be adjusted according to departmental require-
 ments and other contingencies. Prospective teachers should plan their
 college work in order that a full semester of their senior year may be
 devoted to the completion of the educational requirements.

PERMANENT CERTIFICATION

Thirty graduate hours are required for permanent certification. A
 Master's degree will meet this requirement when arranged to include

*Ed. 130 is the course designed to meet the needs of most undergraduate students.
 Special methods in the student's proposed teaching area, observation, student teach-
 ing and conferences on teaching problems are arranged within the 10 credit hours
 and during a single semester.

†Students may register for Ed. 130A, Ed. 130E, Ed. 130L, Ed. 130M, and Ed. 130S
 only with special permission of official School of Education adviser.

the necessary professional, teaching area, and general education hour credit.

1. State requirements for graduate students who have had no undergraduate professional education courses:

a. Professional Education	18 hours
b. Professional Education and/or Teaching Area	6
c. General Education or Electives	6
<hr style="width: 10%; margin: 0 auto;"/>	
TOTAL 30 hours	

2. State requirements for graduate students who have completed the 18 credit hours of professional education courses (Provisional Certificate obtained):

a. General Education	9 hours
b. Professional Education and/or Teaching Area	6
c. Teaching Area	9
d. Electives	6
<hr style="width: 10%; margin: 0 auto;"/>	
TOTAL 30 hours	

General Education is interpreted as any college course not in professional education or in the student's teaching area.

The following permanent state minimum teaching area requirements should be considered in terms of the recommended provisional Cornell and state minimum programs:

ENGLISH...30 hours, including English and American literature, and advanced composition. Six hours of speech may be included as part of the total hour requirements.

LATIN and MODERN LANGUAGES...24 hours in language to be taught; 6 hours of entrance credit may be included as a maximum.

MATHEMATICS...In the field of mathematics complete 30 hours, including preparation through differential and integral calculus and courses in statistics, mathematics of finance, and history of mathematics. Three credit hours will be permitted as advanced credit for each year of high school mathematics up to a total of nine credit hours.

SCIENCE...Students should refer to descriptions of requirements for provisional certification. New York State requires a minimum of 30 distributed science hours for a permanent certificate to teach general science, 18 to teach biology, and 12 hours in each specific area of chemistry, physics, and earth science.

SOCIAL STUDIES...36 hours, including 18 hours in political science, geography, and economics; and 18 hours in history including 6 hours of American history.

REQUIRED PROFESSIONAL EDUCATION COURSES FOR PERMANENT CERTIFICATION

Students should refer to the undergraduate professional education program. With approval of official School of Education adviser, some variations from this program will be permitted in Fields Four and Five.

TEACHERS OF AGRICULTURE

GRADUATION REQUIREMENTS OF THE COLLEGE OF AGRICULTURE

Students preparing to teach in the field of vocational agriculture will register in the New York State College of Agriculture and must meet the requirements of that College for graduation. The College of Agriculture requires the completion of the following program of courses: orientation, 1 hour; English, 6 hours; botany, biology, or zoology, 6 hours; chemistry or physics, 6 hours; geology, 3 hours; basic sciences and social studies, 24 hours; electives in the College of Agriculture, 54 hours; general electives, 20 hours.

TECHNICAL STUDIES IN AGRICULTURE AND RELATED SCIENCES

In the certification requirements for the preparation of prospective teachers through the New York State College of Agriculture, a total of 36 semester hours in technical courses must be taken in accordance with the following:

	<i>Semester hours</i>
	<i>Minimum</i>
Agricultural economics and farm management	6
Agricultural engineering and farm mechanics	12
Farm animals including dairy and poultry	6
Farm crops chosen from field, vegetable, and fruit crops ..	6
Soil technology	3
Dairy Science	3

In addition to courses listed above, fifty semester hours in agriculture and science courses must be taken. The student may obtain detailed information relative to these courses from an adviser in agriculture.

PROFESSIONAL COURSES

The prospective teacher of vocational agriculture must complete a minimum of eighteen semester hours in accordance with the following:

	<i>Semester hours</i>
	<i>Range</i>
Practice teaching under supervision including conferences on teaching problems	4-8
Teaching methods and materials in agriculture	4-8
Psychology for teachers	2-6
History, philosophy, problems and/or principles of edu- cation	2-6

GENERAL ELECTIVES

The prospective teacher will find opportunity to select such courses from agriculture, science, or other University offerings as will contribute further to his preparation for teaching.

TEACHERS OF HOME ECONOMICS

GRADUATION REQUIREMENTS OF THE COLLEGE OF HOME ECONOMICS

Students preparing to teach home economics or do extension work in this field will register in the New York State College of Home Economics and must meet the requirements of that College for graduation. Detailed information may be secured from the *Announcement of the College of Home Economics*.

TEACHERS IN THE SECONDARY SCHOOLS

Students in the College who have satisfactorily completed the graduation requirements and who have followed a recommended curriculum in teacher education are eligible for a ten-year provisional certificate to teach homemaking in the secondary schools in New York State. Thirty semester hours of post-Bachelor study are required for eligibility for permanent certification.

EXTENSION WORKERS

SUBJECT MATTER RECOMMENDATIONS AND SUGGESTIONS FOR EXTENSION WORKERS... It is recommended that students preparing for extension work have general training in homemaking and courses in sociology, psychology, economics, and education.

To assist the students in meeting these recommendations, a suggested plan is set up for the use of students and their counselors. This plan provides for courses as indicated to meet graduation requirements, recommended courses of special interest for extension workers, and elective courses which will further contribute to the students' preparation for extension service.

SUGGESTED EXPERIENCE... A student preparing to do extension work should plan her college program and her experiences during the summer to provide opportunity to work with individuals and groups, to observe and study communities and the significant situations and problems to which home economics applies. Summer experience in the extension service program is recommended whenever possible. Opportunities for volunteer work can be provided between freshman-sophomore, sophomore-junior years by the extension service. Summer assistant positions with compensation are provided between junior and senior years.

Practice in public speaking, radio, newspaper writing, and discussion with a variety of groups and organizations will be valuable.

GRADUATE STUDY

ADMISSION

ADMISSION to study in the Graduate School is granted to graduates of approved colleges whose personalities, experience, and records provide evidence of ability to succeed in the various fields for which the school provides preparation. Members of the faculty examine carefully the application of each individual and make recommendations to the Graduate School relative to his fitness as a candidate. Every student, whether or not he is a candidate for a degree, must be admitted by the required procedures before he registers in any course. Final admission rests with the Dean of the Graduate School.

An applicant for admission may become a candidate for a general degree (Ph.D., M.A., or M.S.) or for a professional degree (Ed.D. or M.Ed.).

Status of Students. Every applicant accepted by the Graduate School is admitted in one of the following categories: (1) candidate for an advanced degree, either general or professional; (2) provisional candidate; (3) noncandidate.

Any student wishing to change from one category to another, or from candidacy for one degree to candidacy for another, must secure approval from the office of the Graduate School.

Both provisional candidates and noncandidates will work under the supervision of a committee chosen by them and approved by the Dean. Not later than two weeks after registration, they must present to the Dean for approval a *Statement of Courses*, on the usual forms. When a quota system is in effect, they must be approved for places in the allotment, term by term.

Provisional candidates expect to take degrees eventually, but for some reason are not accepted as candidates immediately. Upon recommendation of the candidate's provisional committee and with the Dean's approval, he may reregister once in provisional status. When admitted to candidacy, he may petition for transfer of a maximum of one residence unit, provided there is convincing evidence that his work has been of the same quantity and quality as would have been required of a candidate.

Noncandidates have announced no intention of working toward an advanced degree, but wish special advanced training. The Graduate School will admit a limited number if facilities warrant and proper directors for the work desired may be found. Except with the per-

mission of the General Committee, a student may register in this status only twice. Upon recommendation of the student's Supervising Committee and with the approval of the Dean, a maximum of one residence unit may be transferred to candidacy. A member of the University faculty may register as a noncandidate, but may not thereafter, under any circumstances, receive residence credit for any time during which he was so registered.

An application for admission should be made on the proper form, which will be supplied at the Office of the Graduate School, 125 Edmund Ezra Day Hall. No application will be acted upon until all the credentials enumerated in this form have been filed. For admission in the fall term, the application should be filed before March 1; for admission in the Summer Session, between March 15 and May 1. Though applications may be filed at any time, the officers cannot give assurance that the application will receive the same consideration that it would receive if filed during those periods.

All applicants, including graduates of Cornell University, must submit complete official transcripts of all previous college courses.

To be admitted to the Graduate School an applicant (1) must have received his baccalaureate degree from a college or university of recognized standing or have done work equivalent to that required for such degree; (2) must show promise of ability to pursue advanced study and research satisfactorily as judged by his previous scholastic record, or otherwise, and (3) must have had adequate previous preparation in his chosen field of study to enter at once upon graduate study in that field.

GRADUATE PROGRAMS OF PROFESSIONAL PREPARATION

FIELDS OF STUDY FOR GRADUATE STUDENTS

To meet the requirements of the Graduate School, candidates for advanced degrees must select a major or minor field of work or a field of concentration. Approved fields for majors in the School of Education are:

Agricultural Education	Guidance and Personnel Administration
Educational Administration and Supervision	History and Theory of Education
Educational Psychology and Measurement	Home Economics Education
Elementary Education	Development of Human Resources
Extension and Adult Education	Nature, Science, and Conservation Education
	Secondary Education and Curriculum

Candidates for advanced degrees in education are expected to include preparation in fields which supplement the field of professional education.

GENERAL DEGREES

Students with appropriate qualifications who are primarily interested in scholarly research may apply to the Graduate School for admission to candidacy for the degrees of Master of Arts, Master of Science, or Doctor of Philosophy. Requirements for these degrees are fully described in the *Announcement of the Graduate School*. Students who are candidates for any one of these degrees may either major or minor in one of the several areas of education. There is an entrance examination for majors in education (see below).

All candidates for these general degrees must register both in the Graduate School and with the Registrar of the University at the beginning of each term or session.

THE PROFESSIONAL DEGREES IN EDUCATION

Advanced professional degrees in education are designed as preparation for the professions in education. The admissions processes, requirements, and curricula for such degrees, as approved by the Graduate faculty, are announced and administered by the faculty of the School of Education, which is a division of the Graduate School. Degrees are awarded upon recommendation of the School of Education to the Graduate faculty.

Two professional degrees are offered, namely, Master of Education and Doctor of Education. The Master of Education degree is planned for those who desire to complete a year of preparation for teaching beyond a Bachelor's degree, or for the preparation of specialists in education. The Doctor of Education degree is offered for those preparing for positions of leadership in education. The program leading to these degrees includes such courses, seminars, projects, and investigations of an advanced or graduate nature as will develop ability to perform acceptably the professional duties required of the several types of educational workers.

ENTRANCE EXAMINATION

All applicants for candidacy for the Ed.D. degree, residing in the United States or Canada, and for whom English is their native language, are expected to have scores submitted from the Miller Analogies Test or the Graduate Record Examinations (the Aptitude Test and the Advanced Test in Education). This requirement applies also to applicants for candidacy for the Ph.D. degree with a major in the Field of Education. Applicants for candidacy for the M.Ed. degree and those for the M.A. or M.S. degrees with a major in the Field of Education may be asked to meet this requirement before admission. However, all candidates when admitted without meeting this requirement and for whom

English is their native language, will be administered the Miller Analogies Test within three weeks after registration for the first unit of residence, at a time and place to be announced by the University Testing and Service Bureau.

An applicant who needs information concerning the location of a center where he may conveniently go for testing, should write to the Dean of the School of Education.

REGISTRATION

Candidates registering for a professional degree (M.Ed. or Ed.D.) must register in the Graduate School and with the Registrar of the University. On official registration days this registration takes place at Barton Hall. Preceding the fall term, the Registrar notifies all students of the hour at which they are to report; if a graduate student does not receive notification at least a week before registration day, he should communicate with the Graduate School. Registration must be made in person. If a student cannot register at the appointed hour he should report at the appropriate office at the earliest time thereafter, bringing an endorsement signed by his adviser or chairman. A fee of \$5 is required of matriculated students for late registration.

A registered student who for any reason discontinues his work during a term should report that fact immediately to the School of Education and to the Graduate School to obtain an official withdrawal and any refund of tuition and fees to which he may be entitled.

The student is responsible for fulfilling all requirements for degrees, as indicated in the Announcements.

RESIDENCE

Each candidate for an advanced degree is expected to complete his residence with reasonable continuity. Under any circumstances, a candidate who fails to register during any period of four or more years may continue only after the General Committee of the Graduate School has stipulated the amount of additional residence to be required. The Committee will be guided in its decision by an estimate, written by the candidate's Supervising Committee, of the period of study necessary to recover lost ground. No more than ten years may intervene between the time of first registration for and the completion of all requirements for the degree.

Residence may be earned in various combinations of:

- (1) Regular terms of full- or part-time residence during the academic year—1, $\frac{3}{4}$, or $\frac{1}{2}$ residence units.
- (2) Six-week summer sessions— $\frac{2}{5}$ residence unit.
- (3) Three-week summer periods or extramural work on or off-campus—recorded in blocks of not less than 6 hours ($\frac{2}{5}$ residence unit).

Credit earned through three-week summer session periods *is not* transferable in fulfillment of residence requirements for the general degrees of M.A., M.S., and Ph.D., nor for the Ed.D. degree beyond residence earned in candidacy for the M.Ed. degree.

THE DEGREE OF MASTER OF EDUCATION

The program for the degree of Master of Education (M.Ed.) is designed for those preparing for teaching or other comparable professional positions.

ADMISSION TO CANDIDACY

To be admitted for this degree an applicant must hold a Bachelor's degree from an institution of recognized standing, give evidence of ability necessary for successful progress in graduate study, and show a sincere interest in the profession.

RESIDENCE

For the M.Ed. degree a minimum of two residence units is required, which may be earned as follows:

1. Regular terms of full-time or part-time registration in the Graduate School during the academic year.
2. Six-week Summer Sessions ($\frac{2}{5}$ unit for each Session of full-time registration).
3. Three-week Summer Session units (two such units equal one six-week Summer Session).
4. Extramural registration on and/or off the campus ($\frac{2}{5}$ unit for each six credit hours). Not more than three such blocks of credit will be counted. The remaining residence may be earned by any one of the methods in 1, 2 or 3, or in combinations of such.

SUPERVISING COMMITTEE

A candidate must select a Committee of two or more members from the Graduate faculty, one of whom will serve as chairman and represent the field of Education. Other members of the Committee are to be selected with the advice of the chairman, to give adequate representation of the candidate's program. All members of the Committee shall approve the candidate's program.

PROGRAM OF STUDIES

Within two weeks after registration for the first unit of residence a candidate shall meet with his entire Committee to plan a program of studies. The program, designed to develop professional competence, must include a minimum of thirty hours of credit in courses and

seminars. Courses in *educational psychology* and in the *history or philosophy of education* shall be required of the candidate who has not previously completed such courses.

The candidate is required to have completed in candidacy or elsewhere the courses and the directed participation in the art of teaching appropriate to the field of professional service for which he is preparing.

The remainder of the candidate's program shall include courses in a teaching field or such other courses as will give unity and breadth to the program.

ESSAY

A candidate for the M.Ed. degree must complete an essay which is acceptable to his Committee. One copy of this essay, suitably bound, must be filed with the School of Education.

FINAL EXAMINATION

For the M.Ed. degree a candidate must pass a final examination conducted by the Supervising Committee. The examination, to be both written and oral, shall be comprehensive in nature and designed to measure the candidate's proficiency in the theory and practice of education.

THE DEGREE OF DOCTOR OF EDUCATION

The program for the degree of Doctor of Education (Ed.D.) is designed to prepare the candidate for a position of leadership in the educational profession.

ADMISSION TO CANDIDACY

A candidate for the Ed.D. degree must be a graduate of an approved college and must have completed a minimum of three years of successful experience appropriate to his proposed field of professional service.

The applicant must show evidence, based on previous training, of scholastic ability and other qualifications necessary for successful progress in graduate study, field study, and professional work.

RESIDENCE

In fulfillment of the requirements for the Ed.D. degree, a minimum of five units of residence is required beyond the Bachelor's degree, of which at least three units must be earned in residence at Cornell. Two units of residence beyond the Master's degree or its equivalent must be earned at Cornell in regular terms, consecutive except on petition. Any remaining residence units must be earned in regular terms, in summer sessions, extramurally, or, by registration for Summer Research.

All requirements for the degree must be completed within four years after the minimum residence requirement has been satisfied. For a description of the several combinations in which residence may be earned, see page 21.

In addition to meeting residence requirements, a candidate must complete successfully one year of participation in Directed Field Study as described in subsequent statements.

SUPERVISING COMMITTEE

A candidate must select a Committee of at least three members from the Graduate faculty, one of whom will serve as chairman and will represent the candidate's field of professional service. Other members of the Committee are to be selected, with the advice of the chairman, to give adequate representation of the candidate's program. All members of the Committee shall approve the candidate's program.

PROGRAM OF STUDIES

Within a period of two weeks after registration for the first unit of residence, the candidate shall meet with his entire Committee to plan a program of studies. The program, designed to develop competence in a field of professional service and in the general field of education, must include a minimum of sixty-five credit hours in courses and seminars beyond the Bachelor's degree, of which thirty-five hours shall be completed beyond the Master's degree or its equivalent.

The candidate will be expected to prepare himself in courses and seminars representing a field of professional service. Fields are described in terms of professional positions for which preparation is offered. Approved fields of professional service for the Ed.D. degree are as follows: administrator, coordinator, curriculum specialist, extension specialist, student service specialist, supervisor, teacher.

The program of studies must include advanced work in each of these fields: educational psychology, history and philosophy of education, educational measurement and statistics, research in education. At least fifteen hours of credit must be earned in courses other than those in professional education.

The transfer of credit in institutions other than Cornell University must be recommended by the Supervising Committee and approved by the Dean of the Graduate School.

DIRECTED FIELD STUDY

In keeping with the primary emphasis in the program for the Ed.D. degree, a minimum of one year of full-time experience appropriate to the candidate's field of professional service is required. This period of participation, to be known as Directed Field Study, will follow com-

pletion of a minimum of two units of residence at Cornell beyond the Master's degree or its equivalent. (Residence requirements are described on page 23.)

The opportunity for the field experience is to be sought by the candidate with the advice and assistance of the Supervising Committee, and the proposed plan for experience must be approved by the Committee. The opportunity sought must afford those practical experiences which the candidate and his Committee have identified as being needed in acquiring competence in the field of professional service for which the degree program has been designed. (Fields of professional service are identified on page 19.)

In advance of the period of Field Study, the candidate will plan with his Committee, and with his supervisor or employer or both, for the kind and extent of experience to be obtained. Such planning will include a description of means by which the experience is to be obtained, supervised, and reported.

The Supervising Committee will require the following records and reports of the candidate: (1) an outline or listing of the experiences as agreed upon, in advance of the Field Study, by the candidate, the Committee, and the supervisor; (2) a periodic reporting by the candidate of activities engaged in or experiences obtained; (3) a statement of appraisal by the supervisor of the candidate's performance in obtaining experiences and of the values gained; (4) a final written report by the candidate which shall include an evaluation of experiences. The report of the supervisor and the candidate's written evaluation shall become part of the records indicative of completion of degree requirements.

Successful completion of the Directed Field Study is prerequisite to recommendation of the candidate for the degree.

THESIS

For the Ed.D. degree the candidate is required to present a thesis which will give evidence of the ability to apply knowledge to a professional problem. The thesis must satisfy the Supervising Committee in respect to both professional proficiency and literary quality. Regulations concerning preparation and publication of theses shall be determined by the Committee on Professional Degrees. Two unbound copies of the thesis must be filed in the Graduate School. The faculty requires the publication of abstracts and the microfilming of doctoral theses through University Microfilms, Inc.

EXAMINATIONS

Three examinations are required for the degree: (1) an entrance examination; (2) a qualifying examination; (3) a final examination. Although other members of the faculty may be invited to participate

in these examinations, the Supervising Committee alone decides whether the candidate has passed or failed.

ENTRANCE EXAMINATION

An applicant for admission to candidacy for the degree must submit to the School of Education his scores on certain tests specified as comprising the entrance examination. (See page 20 for specific details.) The Supervising Committee shall use examination results in planning a program of studies with the candidate.

QUALIFYING EXAMINATION

A candidate for the degree is required to pass a qualifying examination, to be both written and oral, and to be given before or during the third unit of residence. This examination has the double purpose of determining the ability of the candidate to pursue further studies and of allowing the Supervising Committee and the candidate to plan together a satisfactory program for completion of candidacy.

FINAL EXAMINATION

For the Ed.D. degree, a candidate is required to pass a final examination given by the Supervising Committee and other members of the faculty who may be invited to attend. The examination must be given in two parts—one part on the field of professional service and core studies in education (Examination A), which may be taken at the end of the fourth unit of residence; the second part, on the thesis (Examination B), is taken after the thesis is approved by the Supervising Committee. Examination A may be written or oral or both. Examinations A and B may precede or follow the period of Directed Field Study.

Examinations A and B are scheduled with the approval of the Supervising Committee. The scheduling of Examination A is to be announced to the faculty. At least one member of the Committee on Professional Degrees, or another member of the faculty designated by the Committee, shall attend Examination A.

FACILITIES FOR VISITING FELLOWS

The faculty welcomes mature scholars who wish to use the facilities of the University to prosecute investigations or to work with the faculty in the advancement of knowledge. A scientist or scholar who wishes to work on the campus may, upon recommendation of the department in which he wishes to work and endorsement of the College Dean over that department, be given the title of Visiting Fellow by the President, providing he has no formal duties to perform and is paid no salary by the University.

FEES PAYABLE BY GRADUATE STUDENTS

A registration deposit of \$28 must be made by every applicant for admission after the applicant has received notice of acceptance, unless the candidate has previously matriculated as a student at Cornell University. This deposit is used at the time of first registration to pay the matriculation fee, chest X-ray, and examination-book charge, and covers certain expenses incident to graduation if the student receives a degree. The deposit will not be refunded to any candidate who withdraws his application after May 22 or within 20 days of his admission approval.

Tuition of \$150 a term is to be paid by all students registered in the Graduate School with major concentration in subjects within the state-supported colleges* of the University; all others must pay tuition of \$512.50 a term. Tuition is payable, in the Treasurer's office, Edmund Ezra Day Hall, at the beginning of each term.

Upon recommendation by the appropriate college dean and by action of the Board of Trustees, for each appointment in a state-supported school or college, waiver of tuition in the Graduate School may be made to a member of the teaching or scientific staff, whose major field of study is in a state-supported school or college, subject to the following limitations:

RATE OF ANNUAL SALARY	% WAIVER
\$1900 and under	100%
1901-2100	75%
2101-2300	50%
2301-2500	25%
2501 and up	0%

The word salary as used above means total pay, that is, base pay plus any bonus.

Graduate assistants on the nine- or twelve-month basis who reside here during the summer, who are registered for Summer Research for credit in the Graduate School, and who are required to give service in their department or college during that period, may be recommended for waiver of tuition during the summer period under the above limitations. This waiver of tuition does not apply if the student registers in the Summer Session. Those who are engaged only in graduate study and not doing productive work for the department during the summer may not have their tuition waived. The amount of tuition to which the above percentages will be applied is the prorated amount of the full tuition fee based upon the maximum amount of residence units that can be earned.

A regularly appointed member of the teaching or scientific staff registered in the Graduate School, whose appointment does not carry free tuition, shall pay tuition at the rate of three-quarters of the tuition regularly charged full-time students, unless arrangements have been made in advance with the Dean of the Graduate School whereby such student is to receive less than three-quarters of full residence credit because of his appointment, in which case the student may apply to the Treasurer for proration of tuition on the basis of the maximum residence credit that may be earned.

*The state-supported colleges are Agriculture, Home Economics, Industrial & Labor Relations, and Veterinary Medicine.

A candidate for the Ph.D. or Ed.D. degree whose studies have been satisfactory to the faculty is exempt from the further payment of tuition upon presenting to the Treasurer at the beginning of each term a certification from the Dean of the Graduate School that the minimum residence requirement for the Ph.D. degree has been completed.

A College and University Fee of \$112.50 a term, payable at the beginning of each term, is required of all students registered in the Graduate School. This general fee contributes toward the services supplied by the libraries, Clinic and Infirmary, and the student union in Willard Straight Hall, and pays a portion of the extra cost of laboratory courses and general administration.

A graduate student who returns to the University to present his thesis and to take the final examination for an advanced degree, all other work for that degree having been previously completed, shall register as a "candidate for degree only" and shall pay a fee of \$35.

A Thesis Fee of \$30 is required of each doctoral candidate at the time of depositing the approved thesis and abstract in final form. This fee covers the cost of preparing a master microfilm of the entire thesis; of publishing the abstract in the bimonthly periodical, *Dissertation Abstracts*; of mailing the thesis and abstract to and from the microfilm publisher; and of binding both copies of the thesis for deposit in the University Library.

GRADUATE FELLOWSHIPS, SCHOLARSHIPS, AND ASSISTANTSHIPS

Information concerning fellowships and scholarships open to candidates in *all* fields may be found in the *Announcement of the Graduate School*. Financial assistance available to selected students in the School of Education is indicated below.

Holders of fellowships and scholarships pursue a full-time course of study and are usually not required to render services to the University; whereas students who are awarded graduate assistantships ordinarily spend twenty hours a week helping with instruction, research, or extension work. Assistants are eligible for residence units in candidacy according to regulations of the Graduate faculty. Normally an assistant who is called upon for services not exceeding twenty clock-hours a week is eligible for three-fourths of a unit each term, but by earning an additional one-half unit in Summer Research, he may earn two units in one calendar year. Assistantships usually extend over a period of nine months. Many include a waiver of tuition, besides the stipend shown.

Requests for application forms, and additional information concerning any of the opportunities listed below, should be addressed to the Dean of the School of Education, Stone Hall, Cornell University. Completed applications must be received by March 1.

ASSISTANTSHIPS

*THREE AGRICULTURAL EDUCATION ASSISTANTSHIPS** . . . Preference given to candidates for the doctorate in Agricultural Education. \$1750-\$2100.

ONE COMPARATIVE EXTENSION EDUCATION ASSISTANTSHIP . . . For majors in Comparative Extension Education. \$2500.

*TWO EDUCATIONAL PSYCHOLOGY ASSISTANTSHIPS** . . . Open to qualified candidates for the Ph.D. in Educational Psychology who are capable of assisting with instruction in the introductory psychology courses. \$2100-\$2200.

ONE ELEMENTARY-SCHOOL TEACHER EDUCATION ASSISTANTSHIP . . . Open to a person qualified to assist with the preparation of elementary school teachers. \$1725-\$2000.

TUITION SCHOLARSHIPS IN ELEMENTARY EDUCATION . . . A limited number of tuition scholarships for qualified persons. Supported by the Fund for the Advancement of Education. \$300-\$500.

*THREE GENERAL TEACHING ASSISTANTSHIPS** . . . Open to candidates for the doctorate who are enrolled in the Department of Rural Education. \$1350-\$2200.

*ONE READING PROGRAM ASSISTANTSHIP** . . . Open to doctoral candidates who are interested in learning the philosophy, psychology, and practical techniques of developmental reading through teaching reading and study skills to small sections of selected Cornell students. \$2100.

*ONE SCIENCE EDUCATION ASSISTANTSHIP** . . . For majors in Science Teaching or Nature Study or Conservation Education. \$1350.

ONE SECONDARY-SCHOOL TEACHER EDUCATION ASSISTANTSHIP . . . Open to a person with a Master's degree and high school teaching experience, to assist in the supervision of student teaching, counseling with student teachers, and seminar discussion. \$1725-\$2000.

*FOUR RESEARCH ASSISTANTSHIPS IN HOME ECONOMICS EDUCATION** . . . For advanced Home Economics Education majors who are capable of doing research. \$1575.

*TWO TEACHING ASSISTANTSHIPS IN HOME ECONOMICS EDUCATION** . . . Available to experienced teachers of Home Economics. \$1575.

TWO TESTING SERVICE BUREAU ASSISTANTSHIPS . . . Open to doctoral candidates who are qualified to assist in testing programs. \$2300.

TWENTY-SIX RESIDENT ASSISTANTSHIPS IN UNIVERSITY DORMITORIES . . . Available to students who are majoring or minor-

*Tuition in the Graduate School may be waived.

ing in Guidance and Personnel Administration. Majors receive room, board, and tuition, or equivalent.

FELLOWSHIPS AND SCHOLARSHIPS

*ONE ANNA B. COMSTOCK SCHOLARSHIP**... Available to graduate students in Nature Study. \$150.

SIX COMPARATIVE EXTENSION EDUCATION FELLOWSHIPS... For experienced extension personnel who meet the requirements for the special project in comparative extension work supported by the Ford Foundation. Grants based on individual needs.

*SIX DU PONT FELLOWSHIPS**... For qualified, recent college graduates who wish to prepare for high school science or mathematics teaching. \$1200 plus tuition and fees.

ONE EDWARD A. SHELDON SCHOLARSHIP FOR WOMEN... For a qualified woman who is preparing to teach and who needs this assistance, preference being given candidates in the following order: first, a woman graduate of the State University Teachers College at Oswego, N.Y.; second, a woman graduate of any other New York State teachers college; third, a suitably qualified woman who is preparing to teach. \$120.

ONE E. LAURENCE PALMER SCHOLARSHIP... Awarded annually to a graduate student who, through interest and activity, has demonstrated promise in the field of conservation education. \$50.

ONE INTERNATIONAL NICKEL FELLOWSHIP FOR SCIENCE AND MATHEMATICS TEACHERS... Preference given to candidates for the doctorate. \$3000.

ONE JULIAN E. BUTTERWORTH AWARD... Given for outstanding research in the administration of public schools in the rural areas (as defined in New York State). \$100.

TWO SHELL ASSISTANTSHIPS FOR SCIENCE TEACHERS... Preference given to doctoral candidates. \$1500 plus tuition and fees.

MILITARY SCIENCE AND TACTICS

The third and fourth years of military science and tactics (Advanced ROTC) are elective and qualify a student for appointment as a Second Lieutenant in the U.S. Army Reserve or the Regular Army. These courses are open to graduate students who have satisfactorily completed a basic course in ROTC while undergraduates and who are enrolled in a two-year graduate program leading to a degree. Interested graduate students should apply to the Professor of Military Science and Tactics, Barton Hall, for further information. See the *Announcement of Independent Divisions and Departments* for additional details and specific courses offered.

*Tuition in the Graduate School may be waived.

SPECIAL PROGRAMS AND SERVICES

ELEMENTARY EDUCATION

THE PREPARATION of elementary school teachers is offered only at the graduate level in a fifth year of professional work for those who have a baccalaureate degree from an approved college and who now wish to enter the teaching profession. Students completing this program are eligible for certification to teach in the elementary school, kindergarten through the sixth grade, common branch subjects, in New York State and in most other states. It is also possible to complete the requirements for the Master of Education degree at this time. The major concentration of subjects is within the state-supported colleges; limited tuition scholarships are available to selected, well-qualified candidates.

Men and women who have the essential qualifications for graduate work and for elementary teaching may apply for admission. Further information may be obtained from Professor H. Wardeberg, 110 Stone Hall.

THE COMPARATIVE EXTENSION EDUCATION PROGRAM

Continuation of the special three-year project in the field of comparative extension education at Cornell University has been made possible by a supplementary grant from the Ford Foundation for three more years. The program is designed to provide training in the processes of extension education fitted to other cultures and is intended primarily for representatives of land-grant colleges and extension services in both the United States and countries abroad; for representatives of other United States and foreign agencies and institutions engaged in promoting rural improvements in less developed countries, and for other interested persons who can qualify for admission to the program.

The project is administered as an interdisciplinary, interdepartmental, cooperative undertaking, under the supervision of a University Policy Committee representing those departments having important contributions to make. Members of the administrative staff of the University and a national committee comprised of representatives of land-grant colleges and appropriate government agencies serve in an advisory capacity to this committee.

The program of study for each student is developed through personal counseling, taking into account his professional interests, background of

experience, formal study, probable future work, and major professional needs.

The applicant must have had some experience in extension and must be sponsored by a college or university, government, or other institution interested in promoting rural development in underdeveloped countries. Evidence must be provided that the trainee will occupy a position at the completion of his study which offers opportunity for use of the training provided.

Admission to this program will be through the regular channels of the Graduate School. A limited number of scholarships are available to candidates from the United States. Persons selected by the appropriate officials of their institution, agency, or government for participation in the program, should submit applications for admission and fellowship before April 1 to

Professor A. L. Winsor

Director of the Comparative Extension Education Program

46 Warren Hall, Cornell University

Ithaca, New York

THE EDUCATIONAL PLACEMENT BUREAU

The Bureau is the central office of permanent record and placement for qualified Cornellians from *all* departments of the University who wish to secure professional positions in elementary schools, secondary schools, or colleges. With the Bureau's assistance, Cornellians are regularly placed as teachers, guidance counselors, student personnel workers, supervisors, school administrators, and research workers. Requests are received throughout the year from public schools, private schools, junior colleges, technical institutes, colleges, universities, and teacher-training institutions. On the college level the Bureau's contacts are nation-wide.

Services provided include a permanent file of credentials, available throughout each registrant's professional career, and up-to-date information concerning current positions, salary ranges, certification requirements in each state, and placement trends and demands. Detailed information pertaining to all accredited colleges, universities, junior colleges, and private schools in the country is available for reference.

All Cornellians qualified and interested in school or college positions are invited to register with this office well in advance of the completion of their training. Credentials containing comprehensive information as to the personal and educational qualifications and experience of each registrant are compiled in conformity with standards established by the National Institutional Teacher Placement Association. With the cooperation of the registrant, this record is kept up to date at all times and is available to any educational institution or qualified official upon

request. Heads of departments and professors are invited to use this service in placing their graduates.

The Bureau is located in Room 104, Stone Hall.

EXTRAMURAL COURSES

Courses are available through the Division of Summer Session and Extramural Courses to students interested in part-time study. These include the regularly scheduled on-campus offerings for students who can commute to the campus as well as courses in off-campus centers located to suit the convenience of a sufficient number of students to warrant the offering. Graduate credit may be earned in these courses. The credit is recorded in the Registrar's Office just as for full-time students. A candidate for an advanced degree in Cornell University may have such credit applied toward requirements for the degree on recommendation of his Special Committee. Candidates for degrees in other institutions should be guided by the regulations in those institutions.

Residence credit toward advanced degrees in Cornell University may be earned through extramural registration as follows:

1. At the discretion of the student's Special Committee, fifteen credit hours of graduate study earned on campus and/or in off-campus centers may be accepted as one residence unit in fulfillment of the requirements for the Master's degree. For the M.Ed. degree the maximum number of hours is 18, equivalent to one and one-fifth residence units. Two residence units may be earned in this manner by candidates for the doctorate.

2. Credit hours may be accumulated to make a block of six hours or the equivalent of two-fifths of a residence unit, the smallest fraction that will be recorded by the Graduate School toward fulfillment of the residence requirement for a degree. When a full unit of residence credit is earned through extramural registration, the last three of the fifteen required hours also will be recorded.

3. The manner of satisfying the remainder of the residence requirement for a degree varies according to the degree. Students should consult the statement of residence requirements for the particular degree in question.

Students who wish to register extramurally should apply for information to the Director of the Division of Summer Session and Extramural Courses, 117 Day Hall.

THE SUMMER SESSION

The Summer Session, through its Summer School and other sessions, offers academic instruction for both graduates and undergraduates by

members of the faculties of the Graduate School, of the Colleges of Arts and Sciences, Engineering, Architecture, Agriculture, and Home Economics, and of the Schools of Education, Industrial and Labor Relations, and Hotel Administration.

This unification of the curricula and faculties of the several schools and colleges makes possible the adaptation of academic work to the special needs of summer students. Undergraduate courses are equivalent to required and elective collegiate courses leading to the baccalaureate. Advanced courses, seminars, and informal study, treating topics of concern to students with special interests, are available. The needs of teachers are met not only in the workshops, seminars, and professional courses in education, but also in departmental courses. A number of unit programs and special courses are offered for professional workers other than teachers.

All necessary facilities of the University are available to students registered in the Summer Session: libraries, classrooms, and laboratories; residence halls, dining rooms, and cafeterias; health services and medical care; counseling services; student union, chapel, playing fields, and recreational areas.

The Summer Session's purpose is to place the facilities of the University at the disposal of persons who can use them to good advantage and for serious purposes during the summer period.

The *Announcement of the Summer School* and application forms for admission are available from the Director of the Summer Session, 117 Edmund Ezra Day Hall. A student planning to become a candidate for an advanced degree from Cornell University should apply for admission not only to the Director of the Summer Session but also to the Dean of the Graduate School.

Registration for the six-week Summer School in 1959 will take place July 6, and classes will begin July 7, extending through August 15.

THE UNIVERSITY TESTING AND SERVICE BUREAU

The Bureau is designed to provide equipment and an organization whereby the various resources in the University can be utilized in the study of educational problems. These problems may arise in such areas as curriculum planning, testing and evaluation, administration and supervision, personnel management, youth adjustment, counseling, and psychological foundations of education. They may exist in any of the various colleges of the University, in the public schools, or in the communities of the state. In addition to the coordination of research, the Bureau offers statistical and clerical assistance to staff and graduate students in independent research studies.

The Bureau maintains an educational and vocational testing service for students referred by counselors of the colleges and by the Dean of

Men and Dean of Women. Persons not enrolled at Cornell University may obtain such service upon referral from Professor A. G. Nelson, 215 Stone Hall.

Numerous nationwide tests are administered by the Bureau, such as the Miller Analogies, Graduate Record Examination, Minnesota Engineering Analogies Test, Admission Test for Graduate Study in Business, National Teacher Examinations, Veterinarian Aptitude Test, etc. This service is especially helpful to individuals who are requested to send certain test scores to various institutions. A number of departments within the University have made use of this service for research.

The Bureau now administers the language examinations for the Graduate School of the University three times every calendar year.

Other forms of service include the maintenance of teaching aids for use by the staff in the preparation of teachers, an extensive library of psychological and educational tests, and a small selected library of technical books dealing with research in education and psychology. The Bureau will also score IBM answer sheets for schools for a very reasonable fee. There are numerous opportunities for graduate students in education to obtain practical experience in the various activities of the Bureau as part of their programs of study. Arrangements for such experience are made through the Director of the Bureau and the student's advisory committee.

Effort is made to offer educational service in harmony with recognized needs and developments. For that purpose suggestions as to improvement of the Bureau's program are constantly solicited.

DESCRIPTION OF COURSES

ADMINISTRATION AND SUPERVISION

R.E. 219. *PERSONNEL ADMINISTRATION IN EDUCATIONAL INSTITUTIONS*. Spring term. Credit two hours. Open to graduate students in education. Th 4-6. Warren 31. Associate Professor ANDRUS.

A study of the problems of human relations in educational institutions. The methods and principles of recruitment, selection, placement, maintenance, organization, and government of staff and employees are analyzed.

R.E. 243. *PRINCIPLES AND PROCEDURES IN SUPERVISION*. Fall term. Credit three hours. M W F 10. Stone 201. Associate Professor WARDEBERG.

Nature and scope of supervision, fundamental principles, and basic procedures will be considered.

R.E. 261. *THEORY AND PRACTICE OF ADMINISTRATION*. Fall term. Credit two or four hours. S 9-10:30, 11-12:30. Warren 260. Associate Professor McCARTY.

An introduction to the study of administration. Both the science and the art are examined. Those preparing for the position of supervisor, principal, or superintendent should enroll for four credits. Others may take the first session for two credits.

R.E. 262. *THE SECONDARY SCHOOL PRINCIPALSHIP*. Spring term. Credit three hours. S 9-12. Stone 201. Associate Professor McCARTY.

The responsibilities of the secondary school principal within the school building. Special attention will be given to the problems of the six-year high school.

R.E. 264. *SCHOOL FINANCE AND FACILITIES*. Spring term. Credit three hours. Prerequisite, 261 or equivalent. T 4:15-5:45, and one hour to be arranged. Warren 201. Associate Professor McCARTY.

Typical problems: How local school funds are levied, collected and disbursed; budget making; bonding; state funds and their distribution; planning, utilization, and upkeep of school facilities.

[Ed. 267. *THE LEGAL PROBLEMS OF THE SCHOOL ADMINISTRATOR*. Fall term. Credit two hours. Associate Professor HIXON. Not given in 1959-1960.]

AGRICULTURAL EDUCATION

R.E. 131. *INTRODUCTION TO TEACHING VOCATIONAL AGRICULTURE*. Spring term. Credit one hour. Required of juniors and others entering the directed teaching program in the senior or following year. M 2-4:30. Warren 201. Assistant Professor TOM and staff in agricultural education.

An introduction to the origin, development, objectives, course of study, individual farming programs, and method of teaching vocational agriculture in central schools.

R.E. 132. *METHODS, MATERIALS, AND DIRECTED PRACTICE IN TEACHING VOCATIONAL AGRICULTURE IN THE SECONDARY SCHOOL*. Fall term. Credit nine hours. Professor HILL and staff in agricultural education.

Directed participation in off-campus centers in the specific and related problems of teaching prevocational and vocational agriculture on the junior and senior high school levels, to include adjustment in the school and community; evaluation of area

resources, materials of instruction, and school facilities; organization and development of local courses of study; launching and directing supervised farming programs; planning for and teaching all-day classes; advising Future Farmers chapters; and other problems relating to development of a balanced program for vocational education in agriculture in a local area.

R.E. 133. *SPECIAL PROBLEMS IN VOCATIONAL AGRICULTURE*. Fall or spring term. Credit one or two hours. W 1-1:50. Stone 201. Assistant Professor TOM and staff in agricultural education.

The purpose is to provide students an opportunity to study individually or as a group selected problems in vocational agriculture to meet the particular needs of the students.

R.E. 134. *ORGANIZATION AND DIRECTION OF YOUNG FARMER PROGRAMS*. Fall term. Credit two or three hours. F 3:45-5:45. Warren 31. Associate Professor CUSHMAN.

Emphasis will be placed on solving the problems encountered by teachers of agriculture in such phases of the young farmer program as making arrangements to have a program, determining instructional needs and planning programs of instruction, teaching young farmers in groups, giving individual on-farm instruction, organizing and advising the local young farmer association, and evaluating the young farmer program.

R.E. 230. *SEMINAR IN AGRICULTURAL EDUCATION*. Spring term. Credit one hour. W 4:15-6. Stone 201. Staff in agricultural education.

Recommended for Master's degree candidates who have had teaching experience and doctoral candidates with majors and minors in agricultural education. The seminar will be primarily centered in current problems and research in the field not included in other course work.

[R.E. 231. *SUPERVISION IN VOCATIONAL AGRICULTURE*. Fall term. Credit two hours. Given in alternate years. Open to students with experience in teaching vocational agriculture, or by permission. Not given in 1959-1960.]

R.E. 232. *ADVANCED METHODS AND MATERIALS OF TEACHING VOCATIONAL AGRICULTURE*. Fall term. Credit two or three hours. M F 2-3:30. Stone 201. Assistant Professor TOM.

Consideration is given to an analysis of selected teaching techniques and to the selection, preparation, and use of instructional materials in vocational agriculture.

R.E. 233. *PLANNING COURSES OF STUDY AND FARMING PROGRAMS IN VOCATIONAL AGRICULTURE*. Spring term. Credit two or three hours. M F 2-3:30. Stone 201. Professor HILL.

Guiding principles, objectives, and sources of information will be developed for planning the courses of study and teaching calendar. Consideration will be given to principles, meaning, and function of farming programs and how they are planned and used as a means of instruction.

R.E. 235. *PLANNING AND CONDUCTING PROGRAMS OF TEACHER PREPARATION IN AGRICULTURE*. Fall term. Credit two hours. Offered in alternate years. M 3:45-5:45. Warren 232. Professor HILL.

Open to persons with teaching experience in vocational agriculture who are preparing for or engaged in the preparation of teachers or in related educational service.

R.E. 236. *THE ORGANIZATION AND ADMINISTRATION OF VOCATIONAL AGRICULTURE*. Spring term. Credit two hours. W 2-4. Stone 201. Associate Professor CUSHMAN.

Designed for teachers, high school principals, teacher trainers, supervisors, and

others who are responsible for the administration of vocational agriculture programs or who wish to qualify for this responsibility. Emphasis will be placed on interpreting the vocational acts and on problems of administration at the local and state level.

[R.E. 239. *TEACHING GENERAL AGRICULTURE IN THE SECONDARY SCHOOL*. Spring term. Credit two hours. T 2-4. Assistant Professor TOM. Not given in 1959-1960.]

The organization, purpose, and content of courses in agriculture in junior and senior high schools to serve those who elect to study agriculture for its general educational values in preparation for rural living.

R.E. 339. *EVALUATING PROGRAMS OF VOCATIONAL AGRICULTURE*. Spring term. Credit two hours. Given in alternate years. Open to students with experience in teaching vocational agriculture or by permission. T 2-4. Stone 201. Associate Professor CUSHMAN.

Students will study objectives and evaluative criteria and develop criteria and procedures for evaluation of programs of agricultural education in the secondary schools.

CURRICULUM, ELEMENTARY AND SECONDARY EDUCATION

Ed. 130. *THE ART OF TEACHING*. Fall term: credit ten hours. Spring term: credit ten hours. Hours to be arranged. Students will register for either fall or spring term on the advice of course instructors. Associate Professor HIXON, Associate Professor PEARD, Miss DEPEW, Mrs. OCVIK, Mr. CATALFANO, Mr. PFAFF.

For students preparing to teach mathematics, English, social studies, or languages, in the secondary schools. A study of general principles of teaching and of special methods of teaching each of these subjects. Opportunities to observe the work of experienced teachers and to do directed teaching in a secondary school. Seminars and student teaching conferences arranged with emphasis on discussion of teaching problems.

R.E. 240. *THE ART OF TEACHING*. Spring term. Credit twelve hours. M F 8-4 and other hours to be arranged. Students may register only with the consent of the instructor. Stone 110. Associate Professor WARDEBERG.

For students enrolled in the fifth year program in elementary education. Students will be placed in elementary classrooms in Ithaca and surrounding communities for directed student teaching.

R.E. 247. *SEMINAR IN ELEMENTARY EDUCATION*. Fall term. Credit four hours. T Th 10:30-12:00. Stone 20L. Spring term. Credit three hours. Hours and room to be arranged. Associate Professor WARDEBERG.

Fall term includes: September experience; materials and methods in mathematics, social studies and special curricular areas; organization of the elementary school for effective learning. Spring term: a problems seminar based on the student's teaching experience.

R.E. 270. *SEMINAR IN EDUCATION*. Spring term. Credit one hour. Th 4-6. Conference Room, Stone. Professors ENNIS, HIXON, STUTZ, McCARTY, and WARDEBERG.

Open to advanced graduate students only. Problems related to elementary and secondary education, curriculum, administrative procedures, and research will be discussed.

R.E. 276. *THE CURRICULUM OF AMERICAN SCHOOLS*. Fall term. Credit two or three hours. Enrollment limited to graduate students. M 4-6. Stone 201. Professor STUTZ.

A consideration of major problems, principles, and techniques in determining the school curriculum. Relation of curriculum principles and trends to specific curriculum problems of concern to members of the class. Persons taking the course for three hours of credit are required to assume extra responsibilities.

R.E. 290. *PRINCIPLES OF SECONDARY EDUCATION*. Fall term. Credit three hours. Open to graduates and advanced undergraduates. Consent of instructor required. T Th 9-10:30. Warren 31. Assistant Professor ENNIS.

A consideration of certain logical principles of teaching in the junior and senior high schools.

R.E. 313. *TEACHING READING AND THE LANGUAGE SKILLS*. Fall term. Credit three hours. M F 2:30-4. Warren 232. Associate Professor WARDEBERG.

Materials and techniques in effective teaching of the language arts in the elementary school; special emphasis on the teaching of reading. Open only to graduate students.

Ed. 315. *READING IN THE SECONDARY SCHOOL*. Spring term. Credit two hours. F 4-5:30. Stone 201. Assistant Professor PAUK.

Designed for all teachers of the content subjects as well as for administrators and supervisors. The psychology, philosophy, and pertinent research in developmental reading will be explored. Emphasis will be placed on demonstration and discussion of practical teaching methods and practice materials used in classroom teaching.

EDUCATIONAL PSYCHOLOGY

R.E. 10. *PSYCHOLOGY*. Fall or spring term. Credit three hours. Recommended for freshmen and sophomores only. May not be taken for credit by students who have had Psychology 101 or equivalent. Two lectures plus one discussion section each week. Lectures M W 10. Plant Science 233. Discussion sections Th 8, 9, 10, 11, F 8, 9, 10, 11, 12. Professor AHMANN.

A study of topics in psychology such as learning, perception, motivation, emotion, individual differences, and personal-social relationships.

Psych. 103. *EDUCATIONAL PSYCHOLOGY*. Spring term. Credit three hours. Primarily for prospective teachers. Prerequisite, a first course in psychology. M W 11. Recitation sections, to be arranged. Associate Professor LAMBERT. (Equivalent of R.E. 111.)

The major facts and principles of psychology bearing on educational practice and theory.

R.E. 111. *EDUCATIONAL PSYCHOLOGY*. Fall or spring term. Credit three hours. Prerequisites, R.E. 10 or Psych. 101. Not open to freshmen or those who have taken R.E. 117. Lectures, M W F 9. Warren 145. Professor GLOCK. (Same as Psych. 103.)

Consideration of the outstanding facts and principles of psychology bearing upon classroom problems.

R.E. 117. *PSYCHOLOGY OF ADOLESCENCE*. Spring term. Credit two hours. Designed especially for teachers and prospective teachers; others only by permission of instructor. Not open to freshmen or sophomores. Prerequisite, a course in general psychology. T 4-6. Warren 31. Associate Professor ANDRUS.

A survey of the nature of adolescent growth and development, with emphasis on the consideration of some of the causal factors pertaining to adolescent behavior.

R.E. 211. *EDUCATIONAL PSYCHOLOGY*. Fall term. Credit three hours. Permission of the instructor required. M W F 11-12:30. Stone 201. Professor GLOCK.

For mature students with teaching experience. Special emphasis will be given to

the topics of learning, social organization of the classroom, and evaluation, and their relationship to the teacher's problems.

[R.E. 251. *EDUCATIONAL MEASUREMENT*. Spring term. Credit three hours. Prerequisite, a course in educational psychology or permission of instructor. Professor AHMANN. Not given in 1959-1960.]

R.E. 253. *INTRODUCTION TO EDUCATIONAL STATISTICS*. Fall term. Credit three hours. T Th 8:30-10. Warren 345. Professor AHMANN.

A study of common statistical procedures encountered in educational literature and research. Includes the computation and interpretation of descriptive measures and tests of significance.

[R.E. 254. *STATISTICAL INSTRUMENTS IN EDUCATION*. Spring term. Credit three hours. Prerequisite, R.E. 253 or permission of instructor. Professor AHMANN. Not given in 1959-1960.]

A study of the analysis of variance, the analysis of covariance, the discriminant function, test item analysis, and supporting topics.

R.E. 255. *USE AND INTERPRETATION OF TESTS IN GUIDANCE AND PERSONNEL ADMINISTRATION*. Fall term. Credit two hours. Open to students in guidance or personnel administration, and to classroom teachers who expect to work with standardized objective tests. Th 4-6. Stone 201. Associate Professor ANDRUS.

The historical development, use, and interpretation of group aptitude tests as a basis for guidance and selection.

Psych. 351. *PSYCHOLOGICAL TESTS I*. (Tests of intelligence and specific aptitudes.) Fall term. Credit three hours. Not open to sophomores. Primarily for seniors and graduate students. Juniors must obtain consent of instructor. Prerequisite, 6 hours in psychology and a course in statistics, or consent of the instructor. T Th S 10. Professor FREEMAN.

Basic psychological and statistical principles in the construction and use of individual and group tests of intelligence and specific aptitudes; theories of the nature of mental abilities; fields of application; intensive study of selected scales.

Psych. 352. *PSYCHOLOGICAL TESTS II*. (Tests of personality and of social behavior.) Spring term. Credit three hours. Prerequisite, Psych. 351 or equivalent, and consent of the instructor. Primarily for seniors and graduate students. T Th S 10. Professor FREEMAN.

Basic psychological principles in the construction and use of personality rating scales, personality inventories, projective techniques, and situational tests. Several selected instruments are studied intensively.

Psych. 410. *INDIVIDUAL DIFFERENCES*. Fall term. Credit three hours. Prerequisite, Psych. 351 or equivalent, or consent of instructor. T Th 2-3:15. Professor FREEMAN.

The nature and causes of variations in human abilities; their educational and social implications. Especial study of the characteristics of the mentally retarded and the mentally superior groups.

Psych. 411. *PROCEDURES IN CLINICAL PSYCHOLOGY*. Spring term. Credit three hours. Prerequisite, Psych. 351. Primarily for seniors and graduate students. All students must have consent of the instructor. M 2-4 and conferences to be arranged. Professor FREEMAN.

Procedures and instruments used with clinical cases involving problems of learning and behavioral adjustment.

Psych. 413. *PRACTICUM AND SEMINAR IN PSYCHOLOGICAL TESTING*. Either term. Credit three hours. Prerequisite, Psychology 351 or 352, or equivalent.

For graduate students. All students must have consent of the instructor. Limited enrollment. Hours to be arranged. Professor FREEMAN and Mrs. HAMPTON.

Practice in administering and interpreting individual tests of intelligence or of personality, including projective techniques. Each student is required to concentrate upon a single instrument in a given semester.

H.E.Ed. 459. *EVALUATION*. Fall term. Credit three hours. M Th 1-2:30. Van Rensselaer East Wing 5. Professor BLACKWELL. (See page 48 for description.)

EXTENSION, ADULT, AND HIGHER EDUCATION

R.E. 212. *EDUCATIONAL PSYCHOLOGY FOR EXTENSION WORKERS*. Fall term. Credit two hours. M 2-4. Warren 31. Professor WINSOR.

Designed for advanced students in extension education and administration.

R.E. 214. *COLLEGE TEACHING*. Fall term. No credit. M 7-9 p.m. Warren 145. STAFF IN EDUCATION, and others.

Designed for non-Education majors who plan to teach in higher institutions. Methods of teaching, organization of subject matter, motivation, learning, testing, grading, and similar problems will be treated.

R.E. 223. *SEMINAR: THE COOPERATIVE EXTENSION SERVICE AS AN EDUCATIONAL INSTITUTION*. Fall term. Credit two hours. For graduate students majoring or minoring in extension education and others interested in broadening their knowledge of the Extension Service. W 2-3:30. Warren 31. Professor LEAGANS.

Major topics around which study and discussion will center include: factors associated with the creation of the Extension Service, its development, present scope, objectives, philosophy, administrative organization, and role as a public educational agency.

R.E. 224. *PROGRAM BUILDING IN EXTENSION EDUCATION*. Fall term. Credit two hours. T 2-3:30. Warren 31. For graduate students in extension education and others interested in adult education. Professor LEAGANS.

A study of the basic problems, principles, and procedures in the process of extension program building in both agriculture and homemaking.

R.E. 225. *TEACHING IN EXTENSION EDUCATION*. Spring term. Credit two hours. T 2-3:30. Warren 201. For graduate students in extension education and others concerned with teaching adults. Professor LEAGANS.

The principles of teaching and learning and their application in extension teaching. Major problems, including the formulation of learning situations, selection and organization of learning experiences, selection and use of extension methods, and evaluation of teaching, are considered.

R.E. 227. *SEMINAR: COMPARATIVE EXTENSION EDUCATION*. Fall and spring terms. Credit two hours each term. F 2-4. Warren 132. Limited to Ford Foundation fellows in Extension Education except by invitation. Professors WINSOR and FENLEY.

The development of Extension Education in different cultures, in different circumstances of economic, political, and social development, and in different agricultural resource environments. The central objective is to help students develop a philosophy, a background of knowledge, and professional skill that will enable them to initiate, organize, and administer training programs for extension workers in other countries, and for foreign students and visitors to land-grant colleges and other U.S. agencies.

R.E. 228. *ADVANCED SEMINAR IN EXTENSION EDUCATION*. Spring term. Credit two hours. Open only to graduate students with experience in Extension Education. W 2-3:30. Warren 232. Professor LEAGANS.

Professional problems that are currently of major concern in the Extension Service will be selected for close study. Problems may be drawn from such fields as administration, supervision, personnel recruitment and training, scope of programs, integration, the unit approach, etc. Selections will be made in the light of special interest of the seminar members.

[R.E. 291. *SEMINAR IN THE DEVELOPMENT AND EXECUTION OF EDUCATIONAL PROGRAMS IN UNDERDEVELOPED AREAS OR COMMUNITIES*. Fall term. Credit two hours. Not given in 1959-1960.]

Designed for teachers, extension workers, missionaries, government workers, and others who expect to do educational work in underdeveloped areas of the free world. Analysis is made of the cultural, social, educational, and economic factors in selected areas as background for the development of programs and teaching procedures.

[R.E. 293. *ADMINISTRATION AND SUPERVISION OF ADULT EDUCATION*. Spring term. Credit two hours. Time and place to be arranged. Professor ———. Not given in 1959-1960.]

[R.E. 294. *PRINCIPLES AND PHILOSOPHY OF ADULT EDUCATION*. Spring term. Credit two or three hours. Not given in 1959-1960.]

H.E. Ed. 437. *ADULT EDUCATION*. Fall term. Credit two or three hours. T 4-5:45, Van Rensselaer East Wing 5. For seniors and graduate students. Associate Professor PATTERSON. (See page 47 for description.)

H.E. Ed. 438. *SEMINAR IN ADULT HOME ECONOMICS EDUCATION*. Spring term. Credit two hours. T 4-5:45. Van Rensselaer East Wing 5. Associate Professor PATTERSON. (See page 47 for description.)

H.E. Ed. 490. *TEACHING HOME ECONOMICS IN HIGHER EDUCATION*. Fall term. Credit two hours. T Th 10. Van Rensselaer East Wing 5. Associate Professor PATTERSON. (See page 48 for description.)

GENERAL

Educ. 7. *READING IMPROVEMENT PROGRAM*. Either term. Noncredit. Prerequisite, all students are required to take the Cooperative Reading Test at times to be announced. Fall term, M W 9, 10, 11, 1, 2; or T Th 8, 9, 10, 11, 1. Spring term, M W 9, 10, 11; or T Th 8, 9, 10, 11. Laboratory: two half-hour periods a week to be arranged. Fall program is reserved for selected freshmen. Spring program is open to all registered students. Enrollment limited. Stone 105. Assistant Professor PAUK.

Designed to increase efficiency in reading rate and comprehension. Principles and techniques of good reading are explained, demonstrated, and practiced in class. The laboratory is equipped to provide an opportunity to practice good reading habits under controlled conditions.

R.E. 190. *SOCIAL FOUNDATIONS OF EDUCATION*. Fall or spring term. Credit three hours. Not open to freshmen and sophomores. Consent of the instructor required. Lecture M W 10. Discussion sections F 9, 10 and 11. Warren 145. Assistant Professor ENNIS.

Consideration of the school as a social institution with emphasis on the role of the school in a democratic society and on the structure and function of American schools.

R.E. 194 *PRINCIPLES OF VOCATIONAL EDUCATION*. Spring term. Credit two hours. Th 4:15. Stone 201. Professor SMITH.

The meaning, purpose, and methodology of vocational education and its place in the total school program. Applicable for administrators, supervisors, teacher trainers, and teachers.

R.E. 199. *INFORMAL STUDY IN EDUCATION*. Maximum credit, three hours each term. Members of the STAFF.

This privilege is granted to a qualified student of junior rank or above, when approved by his adviser from the education staff who is personally responsible for the study.

R.E. 199. *EDUCATIONAL RESEARCH METHODS*. Fall term. Credit two hours. Recommended for Master's degree candidates. T Th 8. Stone 201. Professor W. A. SMITH.

The meaning of research applied to problem selection, the research plan, selection of techniques and procedures, and preparing the research report.

R.E. 300. *SPECIAL STUDIES*. Credit as arranged. Members of the STAFF. Students working on theses or other research projects may register for this course.

The staff members concerned must be consulted before registration.

R.E. 400. *INTERNSHIP IN EDUCATION*. Fall and spring terms. Credit two to six hours as arranged. Members of the FACULTY.

Opportunity for apprentice or similar practical experience on the graduate level in administration, agricultural education, guidance, personnel administration, supervision, and other types of professional service in education.

Ed. 402. *FIELD LABORATORY IN STUDENT PERSONNEL ADMINISTRATION*. Throughout the year. Prerequisite, consent of the instructor. Credit and hours to be arranged. Associate Professor PEARD.

H.E. Ed. 403. *SPECIAL PROBLEMS FOR GRADUATE STUDENTS*. Fall and spring terms. Credit and hours to be arranged. DEPARTMENT STAFF.

For graduate students recommended by their chairmen and approved by the instructor in charge for independent, advanced work.

H.E. Ed. 407. *THESIS AND RESEARCH*. Fall and spring terms. Credit and hours to be arranged. Registration with permission of the chairman of the graduate committee and the instructor. Professor BLACKWELL, Associate Professors MOSER, PATTERSON, and RHODES, and Assistant Professor H. Y. NELSON.

H.E. Ed. 475. *READINGS IN EDUCATION*. Spring term. Credit two hours. T Th 10. Van Rensselaer East Wing 5. Associate Professor PATTERSON. (See page 48 for description.)

Ed. 499. *INFORMAL STUDY IN EDUCATION*. For students with majors in the Endowed Colleges. Maximum credit three hours each term. Members of the STAFF.

This privilege is granted to a qualified graduate student when approved by his adviser from the Education staff who is personally responsible for the study.

Ed. 500. *SPECIAL STUDIES*. Credit as arranged. For students with graduate majors in the Endowed Colleges. Members of the STAFF.

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

GUIDANCE AND PERSONNEL ADMINISTRATION

Ed. 280-281. *INTRODUCTION TO STUDENT PERSONNEL ADMINISTRATION*. Throughout the year. Prerequisite, consent of the instructor. Credit two hours a term. T 10-12. Olin Hall. Associate Professor PEARD and STAFF.

Development of a personal philosophy basic to a personnel program in higher education.

R.E. 282. *EDUCATIONAL AND VOCATIONAL GUIDANCE*. Fall term. Credit two hours. For graduate students only. T 4:15. Stone 201. Professor NELSON.

Principles and practices of educational and vocational guidance. Historical and theoretical background of the guidance movement; educational, vocational, and community information needed; the study of the individual; group methods; counseling; placement and follow-up; and the organization, administration, and appraisal of guidance programs.

R.E. 283. *COUNSELING*. Spring term. Credit two hours. For graduate students only. Prerequisite, courses 255 and 282 or their equivalents. M 4:15-6. Warren 201. Professor A. G. NELSON.

Principles and techniques of counseling with individuals concerning various types of educational, vocational, and social adjustment problems. Case studies.

R.E. 284. *GROUP TECHNIQUES IN GUIDANCE*. Spring term. Credit two hours. M 9. Stone 201. Professor A. G. Nelson.

Methods and materials for presenting orientation and occupational information to students. Theory and practice of group guidance.

R.E. 285. *OCCUPATIONAL AND EDUCATIONAL INFORMATION*. Fall term. Credit four hours. Prerequisite, permission of the instructor. T Th 1. Field trips and laboratory on Monday afternoons. Stone 201. Professor NELSON.

Survey and appraisal of occupations and training opportunities; study of sources of educational and vocational information; job analysis; vocational trends. Field trips to places of employment.

R.E. 289. *SUPERVISED PRACTICE IN TESTING AND COUNSELING*. Spring term. Credit three hours. Prerequisites, 255, 283, 285, or their equivalents, and the permission of the instructor. For advanced graduate students only. Hours for observation and practice to be arranged. Professor NELSON.

Practice in the administration, scoring, and interpretation of psychological tests. Observation and supervised experience in counseling at the Cornell Guidance Center. Case conferences and assigned readings.

Ed. 380. *FUNCTIONS OF STUDENT PERSONNEL ADMINISTRATION*. Fall term. Prerequisite, consent of the instructor. Credit two hours. T 2-4. Professor BROOKS, and STAFF.

Trends in higher education, relation of personnel office to other offices and agencies, the field of personnel.

Ed. 381. *SEMINAR IN STUDENT PERSONNEL ADMINISTRATION*. Spring term. Prerequisite, consent of the instructor. Credit two hours. T 2-4. Associate Professor PEARD.

HISTORY AND PHILOSOPHY OF EDUCATION

Ed. 244. *PHILOSOPHY OF EDUCATION*. Credit two hours. W 4-6. Fall term: limit, 20; primarily undergraduates and Masters' candidates; Associate Professor PEARD. Spring term: not limited; primarily doctoral and Masters' candidates; Associate Professor HIXON.

A critical consideration of educational philosophies which are generally recognized as significant influences upon education in the United States.

R.E. 297. *HISTORY OF EDUCATION IN THE MODERN PERIOD*. Spring term. Credit three hours. For graduate students. Seniors by permission of instructor. M 4-6 and one hour to be arranged. Stone 201. Professor STUTZ.

A survey of education from the beginning of the seventeenth century to the present, with emphasis on public education and on policies and problems.

NATURE STUDY, SCIENCE EDUCATION, AND CONSERVATION EDUCATION

[R.E. 106. *OUTDOOR LIVING AND CAMP ADMINISTRATION*. Fall term. Credit three hours. Registration by permission of instructor only. Associate Professor ROCKCASTLE. Not given in 1959-1960.]

R.E. 107. *THE TEACHING OF ELEMENTARY SCHOOL SCIENCE*. Fall or spring term. Credit two hours. Open to seniors and graduate students and juniors by permission. Fall term: Lecture W 2; practical exercises W 3-5:30. Spring term: Lecture S 9; practical exercises S 10-12:30. Stone 7. Associate Professor ROCKCASTLE.

The content and methods of elementary-school science and nature study, with field work and laboratory experience useful in classroom and camp. Designed particularly for those who are preparing to teach or supervise elementary science or nature study.

R.E. 108. *FIELD NATURAL HISTORY*. Fall or spring term. Credit two hours. Open to juniors, seniors, and graduate students, and to sophomores with instructor's permission. Limited to twenty students a section. Fall term, Lecture, T 4:30. Stone 7. Field trip T 2-4:30. Associate Professor ROCKCASTLE. Spring term, Lecture, T or F 4:30. Weekly field trips, T or F 2-4:30, begin with the first meeting. Friday section primarily for those experienced in field biology. Associate Professor FISCHER.

Devoted to studies of local plants and animals, their ecology and their relations to humans. Applications to teaching science and conservation are emphasized. A full year course; may be taken either term or both terms.

[R.E. 109. *OUR PHYSICAL ENVIRONMENT*. Fall term. Credit two hours. Open to juniors, seniors and graduate students primarily interested in public school teaching. Associate Professor ROCKCASTLE. Not given in 1959-1960.]

A study of the commonplace machines and materials in our physical environment, and their effectiveness in demonstrating basic scientific principles. Frequent field trips and first-hand examination will be used in studying air, water, soil, light and sound, as well as some elementary mechanical and electrical devices. Emphasis will be placed on the physical environment as an aid to teaching the physical sciences in the public schools.

R.E. 128. *METHODS OF TEACHING SCIENCE IN SECONDARY SCHOOLS*. Spring term. Credit three hours. Prerequisite, Educational Psychology 111 or the equivalent. For juniors and seniors. Th 2-5:30 and hours for observation to be arranged. Stone 7. Professor P. G. JOHNSON and assistants.

A consideration of methods and materials useful in teaching science in secondary schools. Observation of the work of experienced teachers constitutes an important part of the course.

R.E. 129. *PRACTICE IN TEACHING SCIENCE IN SECONDARY SCHOOLS*. Fall or spring term. Credit six or twelve hours. Prerequisite, Rural Education 128 or 207 and permission of the instructor. For seniors and graduate students. Hours to be arranged. Stone 7. Professor JOHNSON and assistants.

Supervised practice in teaching science in secondary schools, with frequent conferences on teaching plans and problems.

R.E. 202. *NATURAL HISTORY LITERATURE*. Fall term. Credit two hours. Given in alternate years. Open to seniors and graduate students interested in nature, science, and conservation education. T Th 10. Stone 7. Associate Professor FISCHER.

A survey of nature and science prose and poetry, with attention to their significance at elementary and secondary school levels, and for leisure reading.

R.E. 203. *NATURAL HISTORY WRITING*. Spring term. Credit two hours. Open to seniors and graduate students interested in nature, science, and conservation education. T Th 10. Stone 7. Associate Professor FISCHER.

Designed to improve natural history, science, and conservation writings. Subject matter, sources of information, types of articles, use of illustrations, and outlets for students' articles are covered.

R.E. 205. *THE TEACHING OF CONSERVATION*. Spring term. Credit two hours. T Th 11. Stone 7. Associate Professor FISCHER.

Consideration of the principles, materials, and methods of conservation education useful to teachers and others engaged in teaching wise use of the resources of the nation.

R.E. 207. *THE TEACHING OF SCIENCE IN SECONDARY SCHOOLS*. Fall term. Credit three hours. Registration by permission only. Th 2-5:30. Stone 7. Professor JOHNSON and assistant.

A consideration of problems of selection and organization of subject matter, of choice and use of materials, and of methods of teaching sciences at the secondary school level. Observation and special problems are important aspects of this course.

[R.E. 209. *THE DEVELOPMENT OF NATURE AND SCIENCE EDUCATION IN THE UNITED STATES*. Fall term. Credit two hours. Professor JOHNSON. Not given in 1959-1960.]

R.E. 226. *RESEARCH IN NATURE STUDY, SCIENCE, AND CONSERVATION EDUCATION*. Fall or spring term. One hour credit. M 5-6. Stone 7. Professor JOHNSON, Associate Professor ROCKCASTLE, and Associate Professor FISCHER.

A seminar dealing with special problems.

HOME ECONOMICS EDUCATION

[H.E. Ed. 110. *HOMEMAKING EDUCATION AND THE COMMUNITY*. Fall term. Credit one hour. Associate Professor RHODES. Not given in 1959-1960.]

Planned to help the student become acquainted with opportunities for professional service in educational programs in home economics and to give her a basis for understanding ways in which home economics serves a community.

Opportunity is provided for observation of home economics programs conducted by a variety of educational agencies in the local community.

H.E. Ed. 300. *SPECIAL PROBLEMS FOR UNDERGRADUATE STUDENTS*. Fall and spring terms. Credit and hours to be arranged. DEPARTMENT STAFF.

For students recommended by counselors and approved by the head of the department and the instructor in charge for independent, advanced work not otherwise provided in the department or for special arrangement of course work necessitated because of previous training. The signatures of professor concerned and of the head of the department are required at preregistration.

H.E. Ed. 310. *THE HOME ECONOMIST AS A TEACHER*. Spring term. Credit two hours. T Th 11. Van Rensselaer East Wing 5. Open to upperclassmen and graduate students. Associate Professor RHODES.

Designed for students who plan to be extension workers, dietitians, social workers, or home service agents, or to undertake other work which will involve informal teaching on a group basis. Will include study of educational objectives, factors affecting the teaching-learning process, various instructional techniques applicable to informal groups, demonstrations and discussions of group teaching, conferences and committees.

H.E. Ed. 330-331. *THE ART OF TEACHING*. To be taken in two successive terms. Open to juniors and seniors preparing to teach home economics in the public schools. Associate Professor MOSER, coordinator, assisted by Associate Professor PATTERSON, Mrs. CORNELIUS, Miss ELLIOTT, and cooperating teachers.

Students have an opportunity to study the community and the place of home economics in the total educational program of the community. They observe and participate in community activities in the total school program and in the home economics program.

330. Fall and spring terms. Credit two hours. Permission of instructor required. This course must precede Home Economics Education 331. Discussion period. T Th 8. Van Rensselaer East Wing 5. Field work is required one-half day a week for the purpose of visiting homemaking programs in cooperating schools.

331. Fall and spring terms. Credit eight hours. To be taken in the senior year. Directed teaching for one-half of the term and general conferences throughout the term. Hours and room to be arranged. Students live in the Home Management Apartments for one-half of the term and in the communities in which they teach for the other half of the term. Students are assigned to cooperating schools within a reasonable distance of Ithaca. They live in the communities and work under the guidance of the local homemaking teachers and under the supervision of the Home Economics Education staff.

H.E. Ed. 403. *SPECIAL PROBLEMS FOR GRADUATE STUDENTS*. Fall and spring terms. Credit and hours to be arranged. DEPARTMENT STAFF.

For graduate students recommended by their chairmen and approved by the instructor in charge for independent advanced work.

H.E. Ed. 407. *THESIS AND RESEARCH*. Fall and spring terms. Credit and hours to be arranged. Registration with permission of the chairman of the graduate committee and the instructor. Professor BLACKWELL, Associate Professors MOSER, PATTERSON, and RHODES and Assistant Professor NELSON.

H.E. Ed. 437. *ADULT EDUCATION*. Fall term. Credit two or three hours. T 4-5:45. Van Rensselaer East Wing 5. For seniors and graduate students. Associate Professor PATTERSON.

An introductory course planned for teachers, administrators, directors of adult education, extension agents, parent educators, and others. Focused on educational needs, program planning suited to adult learners, choosing teaching procedures and materials for adults, promotion of programs; philosophy and evaluation in adult education. A wide variety of adult education activities in the Ithaca area provides opportunity for students to observe the application of principles to local programs. Students taking the third credit either observe or assist in teaching adults in local programs, or choose some other suitable problem.

H.E. Ed. 438. *SEMINAR IN ADULT HOME ECONOMICS EDUCATION*. Spring term. Credit two hours. T 4-5:45. Van Rensselaer East Wing 5. Associate Professor PATTERSON.

Planned for students specializing in adult education. It usually follows Home Economics Education 437; however, experienced students may register by permission of the instructor without 437. Attention is given to various aspects of organizing and conducting adult programs. Special interests of the students will serve as a guide in the choice of topics and of the relative emphasis to be placed on methods and materials for teaching adults, research in adult education, evaluation of instruction, or supervision of programs.

[H.E. Ed. 439. *THE TEACHING OF HOME ECONOMICS*. Fall term. Credit three hours. Associate Professor PATTERSON. Not given in 1959-1960. Will be offered in 1960-1961.]

[H.E. Ed. 449. *CURRICULUM PLANNING IN HOME ECONOMICS*. Spring term. Credit one to two hours. Prerequisite, H.E. Ed. 470 or R.E. 276 or permission of the instructor. Associate Professor RHODES. Not given in 1959-1960. Will be offered in 1960-1961.]

H.E. Ed. 459. *EVALUATION*. Fall term. Credit three hours. M Th 1-2:30. Van Rensselaer East Wing 5. Professor BLACKWELL.

For high school and college teachers, administrators, extension agents, and educational research workers. Students without experience in any of these professional positions are admitted by permission of instructor. Basic principles of evaluation will be studied in relation to specific methods of appraising educational programs or individual achievement. Opportunities will be given for constructing and using evaluation instruments.

[H.E. Ed. 460. *SEMINAR IN EVALUATION*. Spring term. Credit two hours. Prerequisites H.E. Ed. 459 and R.E. 253 or equivalent. Professor BLACKWELL. Not given in 1959-1960. Will be offered in 1960-1961.]

H.E. Ed. 469. *ADMINISTRATION AND SUPERVISION IN HOME ECONOMICS*. Spring term. Credit three hours. W F 8:30-10. Van Rensselaer East Wing 5. Associate Professor RHODES.

Designed for teachers, supervisors, extension workers and others who are responsible for administration and supervision, or who are interested in qualifying for such responsibilities. Students will need to schedule a time for directed observation and participation in the field. Estimated cost of transportation, \$10.

H.E. Ed. 470. *AN INTERDEPARTMENTAL COURSE IN HOME ECONOMICS*. Fall term. Credit three hours. W F 8:30-10. Van Rensselaer East Wing 5. Associate Professor RHODES, coordinator.

An interdepartmental course contributed to by all departments of the College of Home Economics. Planned for graduate students specializing in one area of home economics or allied fields who wish to increase their understanding of home economics as a field of study and as a profession.

[H.E. Ed. 475. *READINGS IN EDUCATION*. Spring term. Credit two hours. T Th 10. Van Rensselaer East Wing 5. Associate Professor PATTERSON.

Open to all graduate students interested in a critical analysis of current literature in the field of education and the consideration of major issues. Students are expected to read widely, and to prepare and present an analysis of various current issues.

H.E. Ed. 480. *SEMINAR IN HOME ECONOMICS EDUCATION*. Fall and spring terms. No credit. M 4. Van Rensselaer East Wing 5. Fall, Associate Professor RHODES, coordinator; spring, DEPARTMENT STAFF.

An informal seminar planned for majors and minors in home economics education and for others who are interested. One major aspect of education will be considered each semester.

H.E. Ed. 490. *TEACHING HOME ECONOMICS IN HIGHER EDUCATION*. Fall term. Credit two hours. T Th 10. Van Rensselaer East Wing 5. Associate Professor PATTERSON.

For students interested in preparing to teach in colleges, junior colleges, or institutes. Opportunities are provided for students to observe and analyze the teaching of college classes.

Application of the principles of teaching to aspects of home economics to be taught; for example, food and nutrition, housing, textiles and clothing, family relations, or management. Deals with (a) the contributions of home economics at the college level; (b) the philosophy involved in cooperatively planned programs; (c) the characteristics of college-age youth; (d) factors affecting student learning; (e)

principles influencing the choice of teaching procedures and materials for college teaching; (f) the educative values of group teaching; and (g) evaluation of teaching.

THE DEVELOPMENT OF HUMAN RESOURCES

ILR 330. *LEARNING THEORY AND TEACHING IN ORGANIZATIONS*. Spring term. Credit three hours. Open to graduate and undergraduate students.

Analysis of educational programs and teaching methods commonly used in industry in relation to learning theory. Emphasis is placed on learning concepts such as perception, feelings and emotions, habit formation and reinforcement as related to such methods as individual counseling, job instruction, role playing, case studies, incident process, and audio-visual aids. A significant part of the course will be devoted to practice in the development of program content, construction of teaching materials and the use of various teaching methods.

ILR 334. *DISCUSSION LEADERSHIP: GROUP PROCESSES AND LEARNING*. Credit three hours. Open to graduate and undergraduate students.

Study of face-to-face groups with special reference to experiences and uses of group discussions in industrial and labor relations situations such as staff and committee conferences, training conferences, mediation conferences, problem solving conferences, etc. Includes a review of behavior in face-to-face groups; the processes of group problem solving and decision making; learning theory as applied in group discussion; the use of case studies, incident role playing, and other devices in educational conferences. Special emphasis is placed on leadership in group discussion situations. Approximately one-half of the course is conducted as a laboratory to provide skill training in discussion leadership.

ILR 364. *TRAINING IN INDUSTRY*. Fall term. Credit three hours. Open to graduate and undergraduate students.

Study of the philosophies, programs, and methods used by business and industrial organizations to develop skill, understanding, and attitudes of the work force. Consideration is given to planning and administering training programs, including policy formation, training needs, objectives, co-ordination, staffing, selection of facilities, budgets, use of records and reports, and evaluation; and to both intermittent and continuous programs, including apprenticeship, job instruction, orientation, supervisory and executive development, and general education courses. Special consideration is given to critical analysis through case discussions, of the philosophy and management of selected programs.

ILR 530. *DEVELOPMENT OF HUMAN RESOURCES*. Spring term. Credit three hours. Open to graduate students and advanced undergraduates with permission of instructor.

Analysis of the need for development of human resources, institutions established to meet this need, development programs and the effectiveness of such programs. Consideration is given to the public interest in the development of manual, technical, and managerial personnel. Emphasis is placed on the role of institutions such as industrial organizations, vocational schools, technical institutes, and universities and on the programs established by these agencies for the development of human resources. Attention is given to the rationale, organization, and administration of specific programs, for example, skill training and retraining, supervisory and managerial training, economic and other general education activities.

ILR 531. *MANAGEMENT DEVELOPMENT*. Spring term. Credit three hours. Open to graduate students and upperclassmen with permission of instructor.

Study of the factors affecting the development of executives and managers in business and industrial organizations. Attention will be given to learning concepts

useful in management development. Emphasis will also be placed on the organizational environment as it influences the growth and development of the individual. Organizational structure and relationships, planning and decision making, control, coordination, and directing work will be considered from the viewpoint of their tendency to assist or to hamper the development process. The role and effectiveness of formal training programs and other development techniques will be considered. Case studies of some of the more significant company programs will be utilized.

ILR 532. *THE MANAGER IN AMERICAN SOCIETY*. Credit three hours. Open to graduate students and advanced undergraduates with permission of the instructor.

Study of the role of business management in our society with special emphasis on the impact of management on industrial and labor relations. Preparation and critical examination of individual and group papers. Acceptable topics relate to current issues and problems in complex organizations; characteristics of modern business organizations; evolution of the American managerial ideology; the role and function of owners and managers; problems of the specialist and technical groups in industry; the origins, career, and mobility patterns of managers; recruiting, salary and personnel practices; managerial attitudes and beliefs; comparison of U.S.A. managers with managers in other societies.

ILR 630. *CURRENT ISSUES AND RESEARCH IN MAN POWER DEVELOPMENT*. Fall term. Credit three hours. Open to graduate students.

A graduate seminar centering on selected issues and relevant research involved in the development of managerial and work force skills (particular emphasis for the seminar to be determined with the seminar group). Seminar papers and class discussion might concentrate on such topics as management development, impact of technological change in training programs, or development of scientific and professional personnel.

INTERDEPARTMENTAL COURSES

Soc. 431. *STRUCTURE AND FUNCTIONING OF AMERICAN SOCIETY—I*. Fall term. Credit three hours. Prerequisite, Sociology and Anthropology 101 or consent of instructor. T Th S 9. Mr. WILLIAMS.

Systematic analysis of the major institutions of kinship, stratification, economic activity, political structure, education, and religion. Special attention is given to values and their interrelations in the modern social order. Includes a survey of the more important types of groups and associations making up a pluralistic nation.

Soc. 432. *STRUCTURE AND FUNCTIONING OF AMERICAN SOCIETY—II*. Spring term. Credit three hours. Prerequisite, Sociology and Anthropology 431 or consent of instructor. T Th S 9. Mr. WILLIAMS.

Primary attention is directed to the study of interrelations of institutions, including analysis of the regulation of economic and political systems. Group cooperation and conflict are surveyed. Analysis of important processes of change in institutions, values, and social organization.

THE NATURE OF MAN. This is a group of three interdepartmental courses dealing with the general topic of the nature of man from the perspectives of the biological and behavioral sciences with particular reference to the determinants of human structure, function, and development. The courses may be taken singly or in any order.

THE NATURE OF MAN: STRUCTURE AND DEVELOPMENT (Zoology 201). Fall. Credit three hours. Not open to freshmen. Prerequisite, a laboratory science, preferably zoology or biology. Mr. SINGER and assistants. Lectures, T Th 10; recitations, T 8, 9, 11, W 8, 9, 10, 11, Th 8, 9, 11, or F 8, 9, 10, 11.

The aim is to give the student an understanding of the structure, function, and development of the human body.

THE NATURE OF MAN: THE DEVELOPMENT OF HUMAN BEHAVIOR. (Child Development and Family Relationships 115). Fall. Credit three hours. Mr. BRONFENBRENNER. M W F 10.

The aim is to contribute to the beginning student's knowledge and understanding of human beings through a study of their development from infancy to adulthood. Attention is focused on the role of biological factors, interpersonal relationships, social structure, and cultural values in changing behavior and shaping the individual. Special emphasis is given to the practical and social implications of existing knowledge.

THE NATURE OF MAN: CULTURE AND PERSONALITY. (Sociology-Anthropology 204). Spring. Credit three hours. Prerequisite, one of the following: a course in Psychology (preferably Psychology 203), Sociology-Anthropology, Child Development and Family Relationships, or Zoology 201 (or equivalent), or consent of instructor. MESSIS, OPLER, LAMBERT, and HOLMBERG. M W F 10.

A study of the individual in his society, with special emphasis on the relationship between social structure and cultural context and human behavior. Particular attention is given to the study of non-Western societies.

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