

SCHOOL OF EDUCATION

1956-1957

CORNELL UNIVERSITY ANNOUNCEMENTS

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ADAMANT TO WORTH

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CONTENTS

Faculty	4
The School	7
Undergraduate Study	9
Admission	9
Guidance and Selection	9
Undergraduate Programs of Professional Preparation	10
Teachers of Agriculture	11
Teachers of Academic Subjects	12
Teachers of Homemaking	14
Elementary Teachers	15
Graduate Study	16
Admission	16
Graduate Programs of Professional Preparation	17
General Degrees	18
The Professional Degrees in Education	18
Visiting Fellows	24
Tuition and Fees	24
Graduate Fellowships, Scholarships, and Assistantships	26
Living Arrangements	28
The Educational Placement Bureau	29
The Experimental Program in Elementary Teacher Education	30
The Extramural Division	31
The Summer Session	32
The University Testing and Service Bureau	33
Description of Courses	34
Administration and Supervision	34
Agricultural Education	34
Curriculum, Elementary and Secondary Education	36
Educational Psychology	37
Experimental Program in Elementary Teacher Education	39
Extension, Adult, and Higher Education	39
General	41
Guidance and Personnel Administration	42
History and Philosophy of Education	43
Nature Study, Science, and Conservation Education	43
Home Economics Education	44
Industrial and Technical Education	47
Interdepartmental Courses	48

FACULTY

(As of April 1, 1956)

Deane W. Malott, A.B., M.B.A., LL.D., President of the University.
Sanford S. Atwood, B.A., M.A., Ph.D., Provost of the University.
Andrew Leon Winsor, Ph.D., Head of the Department of Rural Education and Director of the School of Education.

J. Stanley Ahmann, Ph.D., Associate Professor of Rural Education.
Howard G. Andrus, Ph.D., Director of the Educational Placement Bureau and Associate 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., Associate Professor of Home Economics Education.

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

John M. Brophy, Ph.D., Associate Professor of Industrial and Labor Relations.

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

Pauline Neville Campbell, M.S., Assistant Professor of Education and Elementary Education Consultant, Ithaca Public Schools.

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., Assistant Professor of Rural Education (Agricultural Education).

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

E. William Crane, B.S., Instructor in Rural Education.

Robert H. Dalton, Ph.D., Professor of Child Development and Family Relationships.

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

Joseph Di Franco, M.A., Acting Professor of Extension Education.

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

- Lloyd Elliott, Ed.D., Professor of Rural Education (Educational Administration) and Director of the Summer Session.
- Margaret Elliott, M.S., Instructor in Home Economics Education.
- Lynn A. Emerson, Ph.D., Professor of Industrial Education, Emeritus.
- Carol Engbretson, M.S., Assistant Professor of Home Economics Education.
- Jean Failing, Ph.D., Professor of Home Economics and Coordinator of Resident Instruction, College of Home Economics.
- Richard B. Fischer, Ph.D., Assistant Professor of Rural Education (Nature and Conservation Education).
- Frank S. Freeman, Ed.D., Professor of Psychology and Education.
- Harrison Geiselmann, Ph.D., Assistant Professor of Education.
- Marvin D. Glock, Ph.D., Professor of Rural Education (Educational Psychology), and Director, University Testing and Service Bureau.
- Eva L. Gordon, Ph.D., Associate Professor of Rural Education (Nature Study).
- 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., Assistant Professor of Education.
- Helen Hoefer, M.S. in Ed., Associate Professor of Home Economics Education.
- Edwin R. Hoskins, Ph.D., Professor of Rural Education (Agricultural Education), Emeritus.
- Margaret Hutchins, Ph.D., Professor of Home Economics Education.
- Philip G. Johnson, Ph.D., Professor of Rural Education (Nature and Conservation 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.
- Arthur T. Mosher, Ph.D., Acting Professor of Extension Education.
- A. Gordon Nelson, Ph.D., Professor of Educational and Vocational Guidance.
- 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.
- Isabel Peard, Ph.D., Assistant 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.

William A. Smith, Ph.D., Professor of Rural Education (Agricultural Education) and Director of Extramural Courses.

Rolland M. Stewart, Ph.D., Professor of Rural Education, Emeritus.

Frederick H. Stutz, Ph.D., Professor of Rural Education (Secondary Education).

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., Assistant Professor of Rural Education (Elementary Education).

Ethel Waring, Ph.D., Professor of Child Development and Family Relationships, Emeritus.

Milburn Lincoln Wilson, M.S., Consultant and Field Representative, Extension Education.

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; guidance counselors; and for various opportunities in extension work and adult education. Advanced preparation is provided for positions in research, authorship, 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 certificates for services in New York State, and it recommends to the proper educational authorities in other states that similar credentials be issued. Candidates who have completed the appropriate programs at Cornell may be recommended for one or more of the following credentials: elementary school teacher, high 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 to each candidate who has completed a program of professional preparation.

UNDERGRADUATE STUDY

ADMISSION OF UNDERGRADUATES

STUDENTS 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. Those who expect to obtain Bachelor of Science degrees should apply for admission to the College of Agriculture or the College of Home Economics. Those who seek Bachelor of Arts degrees should apply for admission to the College of Arts and Sciences. A candidate for admission as a freshman in an undergraduate college must satisfactorily complete secondary school subjects carrying a value of 16 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 and costs at Cornell, are described in the *General Information Announcement*. This booklet may be obtained from the Announcements Office, Edmund Ezra Day Hall.

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 at two principal points as to the fitness of the candidate to continue: (1) at the end of the sophomore year, and (2) 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 gained of the student 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 student 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: Assistant Professor Hixon, 209 Rand.

Agriculture: Professor W. A. Smith, 209 Stone.

Elementary Education: Assistant Professor Helen Wardeberg, 108 Stone.

Home Economics: Professor Margaret Hutchins, Apt. C, Van Rensselaer.

Industrial and Technical Education: Professor Brophy, Industrial and Labor Relations Building.

Science: Professor P. G. Johnson, 4 Stone.

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 of the college in which he is matriculated as a candidate for the Bachelor's degree. See the *General Information Announcement* for details of tuition and fees.

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 and elementary 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 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 present plan for the preparation of prospective teachers through the New York State College of Agriculture, a total of 54 semester hours in agriculture and related science is required. A minimum of 36 of these hours should be distributed in the following broad fields:

	<i>Semester hours 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

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 ACADEMIC SUBJECTS

Graduation Requirements of the College of Arts and Sciences. At Cornell University all prospective teachers of academic subjects, except students in the College of Agriculture preparing to teach science, will register in the College of Arts and Sciences and must meet the graduation requirements of that college. For full information consult the *Announcement of the College of Arts and Sciences*.

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 education courses as prescribed by the state.

As an aid to the prospective teacher, 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 the secondary schools. These programs vary in extent and in the number of prescribed courses. It is desirable that some one of the programs below be selected, although other combinations may be arranged to suit 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 program 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.

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, in composition, and in American literature are recommended.

Latin. Students desiring to prepare themselves to teach Latin in the secondary schools should fulfill the requirements of the major in classics. 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.

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*.

Mathematics. Students planning to teach mathematics in secondary schools should make themselves familiar with the New York State requirements. They should bear in mind that the teaching of mathematics is frequently combined with teaching of physical science or general science. The Department of Mathematics recommends, as minimum preparation for teaching the subject, Mathematics 181, 182, and six additional hours selected from the following list: 183, 201, 241, 401, 403, 501. Students planning to teach primarily mathematics should meet the requirements for a major in the subject.

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 40 hours in a major field, ordinarily chosen from botany, chemistry, physics, or zoology, and additional courses to make a total of approximately 60 hours in science. In addition, completion of the minimum certification requirement of 15 hours in mathematics is advisable.

Students planning to teach science in secondary schools should take psychology (Rural Education 10 or Psychology 101) and "The Nature of Man: Structure and Development" (Zoology 201) during their freshman or sophomore years. In the junior year they should take "Educational Psychology" (Rural Education 111 or Psychology 103) and "Methods of Teaching Science in Secondary Schools" (Rural Education 128). They complete the required courses in the senior year by registering for "General Methods" (Education 130 for two hours credit) and "Practice in Teaching Science in Secondary Schools" (Rural Education 129). 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.

Social Studies. In Social Studies the student may major in history, government, economics, or sociology, although concentration in history is preferable. The basic program should include 18 hours of history and 6 hours of government. Depending upon the major subject selected, the number of hours in the program will aggregate from 48 to 60.

Required Educational Courses as Effective Fall Term, 1956. Students preparing to teach academic subjects in the public schools of New York and other states must complete the following program of courses:

SOPHOMORE OR JUNIOR YEAR

Zoology 201. The Nature of Man: Structure and Development.
Fall Term.

or

Biology 9. Biological Basis of Social Problems. Spring Term . . . 3 hours

JUNIOR OR SENIOR YEAR

Psych. 103. Educational Psychology. Fall Term.

or

R.E. 111. Educational Psychology. Fall and Spring Terms 3 hours

R.E. 190. Social Foundations of Education. Fall and Spring
Terms.

or

Ed. 290. Secondary Education. Fall Term. 3 hours

SENIOR YEAR

Ed. 130. The Art of Teaching. Fall and Spring Terms 10 hours

Total 19 hours

The program will be adjusted according to departmental requirements 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.

TEACHERS OF HOMEMAKING IN EXTENSION AND SECONDARY EDUCATION

Teachers

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*.

Subject Matter Requirements of the State Education Department for Certification of Homemaking Teachers. In the majority of school systems, teachers of home economics teach all phases of homemaking. Even in those schools in which homemaking is departmentalized, it is desirable that each teacher have a broad view of the entire field. Information concerning state certification requirements may be secured from the Department of Home Economics Education in the College of Home Economics.

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.

ELEMENTARY TEACHERS

The Department of Rural Education in the College of Agriculture cooperates with the Department of Child Development and Family Relationships in the College of Home Economics in the preparation of teachers for the primary grades. Students registered in the College of Home Economics who are meeting the requirements of the curriculum in Early Childhood Education may register for the necessary professional courses in the Department of Rural Education in their junior and senior years and qualify for a certificate to teach in the schools of New York State.

Students registered in the College of Arts and Sciences may take sufficient professional course work in the Department of Rural Education to complete certification requirements for elementary teaching in New York State.

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, or to the Committee on Professional Degrees relative to the appropriateness of his preparation. 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.

Candidates in the School of Education may become candidates for a Ph.D., Ed.D., M.S., M.A., or M.Ed. degree.

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 an adviser 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 adviser and with the Dean's approval, they may re-register once in provisional status. When admitted to candidacy, they may petition for transfer of a maximum of one residence unit, provided there is convincing evidence that their work has been of the same quantity and quality as would have been required of candidates.

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 intended may be found. Except with the permission of the General Committee, a student may register in this status only twice. Upon recommendation of the Special 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.

An applicant who is not a graduate 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) as judged by his previous scholastic record, or otherwise, must show promise of ability satisfactorily to pursue advanced study and research; 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
Educational Administration and
Supervision
Educational Psychology and
Measurement
Elementary Education
Extension and Adult Education

Guidance and Personnel Administration
History and Theory of Education
Home Economics Education
Industrial Education
Nature, Science, and Conservation
Education
Secondary Education and Curriculum

Candidates for higher degrees in education are encouraged to take one minor outside the field of 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 several areas of education.

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, 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 fifth year of preparation for teaching beyond a Bachelor's degree, or for the preparation of specialists in education; and the Doctor of Education degree is offered for those preparing for positions of leadership in education. The program leading to these degrees shall include 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. An applicant for admission to candidacy for a professional degree (M.Ed. or Ed.D.) must submit to the School of Education his scores on the Miller Analogies Test or the Graduate Record Examinations (the Aptitude Test and the Advanced Test in Education), unless he is seeking admission as a provisional candidate. A provisional candidate must take one or more of these tests within three weeks after registration for the first unit of residence, at a time and place to be announced by the School of Education. An applicant who needs information concerning the location of a center where he may conveniently go for testing, should write to the Director of the School of Education.

Registration. Candidates registering for a professional degree (M.Ed. or Ed.D.) must register in the School of Education and 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 or the School of Education. 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 for late registration by matriculated students.

A registered student who for any reason discontinues his work during a term should immediately report that fact to the School of Education and to the Graduate School in order 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 Committee on Professional Degrees 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 ground lost. 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 stand-

ing, give evidence of ability necessary for successful progress in graduate study, and show a sincere interest in the profession. The Committee on Professional Degrees is responsible for action on admissions.

Residence. For the M.Ed. degree a minimum of two residence units is required. One of the residence units must be earned by work on the Cornell campus. For a description of the several combinations in which residence may be earned see the preceding section.

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 School 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 courses and 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. Regulations concerning preparation of essays shall be determined by the Committee on Professional Degrees. One copy of this essay, suitably bound, must be filed with the School of Education.

Examinations. For the M.Ed. degree a candidate is required to take an Entrance Examination and a Final Examination.

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 18 for specific details.) A provisional candidate must take this examination within three weeks after registration for the first unit of residence. The Supervising Committee shall use examination results in planning with the candidate a program of studies.

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. The Committee on Professional Degrees of the School of Education is responsible for action on admissions.

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, in the instance of graduate assistants, 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 19.

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 approved by the Supervising Committee and by the Committee on Professional Degrees.

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 completion of a minimum of two units of residence at Cornell beyond the Master's degree or its equivalent. (Residence requirements are described on page 21.)

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 17.)

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 ways in 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; (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 copies of the thesis, suitably bound, must be filed in the School of Education. 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 18 for specific details.) A provisional candidate must take this Examination within three weeks after registration for the first unit of residence. The Supervising Committee shall use examination results in planning with the candidate a program of studies.

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 ap-

proved 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 upon approval of the Supervising Committee, and Examination A is 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

Whenever possible, 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

Registration Deposit. A 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 \$425 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-sponsored 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:

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

ANNUAL SALARY	% WAIVER
\$2,100 and less	100%
\$2,101-2,300	50%
\$2,301 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.

A candidate for the Ph.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 \$75 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 Director of the School of Education, Stone Hall, Cornell University. Completed applications must be received by March 1.

ASSISTANTSHIPS

One Secondary-School Teacher Education Assistantship. Open to a person qualified to assist with the preparation of high-school teachers. \$1725.

Three Elementary-School Teacher Education Assistantships. Open to individuals qualified to assist with the preparation of elementary-school teachers. \$1725.

Twenty-Eight Resident Assistantships in University Dormitories. Available to students majoring or minoring in Guidance and Personnel Administration. Women receive board and room plus honorarium up to \$500. Men receive room plus honorarium up to \$500 plus waiver of tuition; apartments available for married couples.

Two Extension Education Assistantships. For majors in Extension Education. \$2500.

Three Agricultural Education Assistantships. Normally open to candidates for the doctorate in Agricultural Education. \$1800-2200.*

Three General Teaching Assistantships. Open to candidates for the

*Tuition in the Graduate School may be waived.

doctorate in the Department of Rural Education. \$1800-2400.*

One Science Education Assistantship. For majors in Science Teaching, or Nature Study or Conservation Education. \$1800.*

Two Teaching Assistantships in Home Economics Education. For candidates who have had home economics teaching experience and who show promise of leadership in the field of Home Economics Education. \$2000.*

Four Research Assistantships in Home Economics Education. Open to advanced Home Economics Education majors capable of doing research. \$2000.*

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. \$2000.*

Two Reading Laboratory Assistantships. Open to doctoral candidates who are qualified to conduct the reading improvement program. \$1800 and \$2000.*

Two University Testing and Service Bureau Assistantships. For doctoral candidates who are qualified to direct testing programs. \$1800.

Two Assistantships in the Counseling Service of the College of Home Economics. Open to candidates who are interested in working toward advanced degrees in Guidance and Personnel Administration, Home Economics Education, Child Development and Family Relationships, or Educational Administration. \$2000.*

FELLOWSHIPS AND SCHOLARSHIPS

One Senior Graduate Fellowship. For research in elementary teacher education. \$2500.

Fourteen Ford Foundation Fellowships. For liberal arts graduates who meet the requirements for the Experimental Program in Elementary Education (see page 30). \$1800.

Fifteen Ford Foundation Fellowships. For experienced Extension personnel who meet the requirements for the special "Training of Trainers" project in Extension Education for service in other cultures. Grants on an individual basis are sufficient to enable recipient to spend one full year of study in the program free of major financial concern.

Shell Fellowship in Mathematics and Science Teaching. \$1950 or \$2500. Stipend \$1500, tuition \$300 or \$850, fees \$150. Preference given to doctoral candidates.

*Tuition in the Graduate School may be waived.

E. Laurence Palmer Scholarship. \$50. Stipend \$50, no tuition or fees.

Two DuPont Teaching Fellowships. For qualified, recent college graduates who wish to prepare for high school science or mathematics teaching. \$1200.*

One Edward A. Sheldon Scholarship for Women. For "any woman of suitable qualifications 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 Scholarship Given by the Late Anna Botsford Comstock. Available to graduate students in nature study. No stipend; tuition waived.

The Julian E. Butterworth Award. For excellence in research in rural school administration. \$50.

LIVING ARRANGEMENTS

The University has established Cascadilla Hall as an all-graduate dormitory. The north wing is for graduate women and the south wing is for graduate men. Applications for this dormitory may be made any time after January first for the coming academic year.

Cascadilla is in the southwest corner of the campus, adjacent to a small shopping community, "College Town." One of the original buildings on campus, it has been completely renovated in recent years. On the first floor is a large lounge that is also used for social functions. Student rooms are located on the second, third, and fourth floors. These rooms are spacious, and the furnishings are adequate and comfortable.

Beginning in the fall of 1956, a new 96-unit housing development will be available to married graduate students. This will consist of twelve units, each with eight apartments. Some apartments have one bedroom, some have two, and all are unfurnished.

Room application forms and more detailed information on all types of graduate housing may be obtained by writing the Department of Residential Halls, Edmund Ezra Day Hall.

An off-campus housing office is maintained by the Department of Residential Halls to assist married students and those single students who do not wish to live in a University dormitory.

*Tuition in the Graduate School may be waived.

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 department and professors are invited to use this service in placing their graduates.

The Bureau is located in Room 104, Stone Hall.

ON-CAMPUS EMPLOYMENT

The University maintains a placement service in the office of the Dean of Men for handling requests for part-time employment. Opportunities arise for normal types of student employment.

THE EXPERIMENTAL PROGRAM IN ELEMENTARY TEACHER EDUCATION

THE SCHOOL of Education at Cornell University has launched a five-year experiment in the professional preparation of elementary teachers, supported by a liberal grant from the Fund for the Advancement of Education of the Ford Foundation. Instead of the usual curriculum based on accepted courses, a selected group of students have begun their training as interns under the direction of carefully selected elementary teachers. Problems that arise in connection with the internships are considered in an integrated seminar participated in by members of the University staff, supervising teachers, state specialists, and the student teachers.

Students who participate in this project must be graduates of approved liberal arts colleges, who have not taken professional courses in education and have not had formal teaching experience. Each must qualify for admission to the Cornell Graduate School. Men or women with this background of liberal arts education who have the essential personal qualifications for elementary teaching and are interested in such an experimental approach for their professional preparation, may apply for fellowships. Personal interviews will be requested whenever possible. Fourteen fellowships of \$1800 each are available to those who meet these requirements. A few students who meet all requirements may be admitted on a nonfellowship basis without a financial grant. Those who complete the year of graduate work successfully will be recommended for a Master of Education degree at Cornell and will be recommended to their respective state departments of education for certification upon graduation.

Persons interested in becoming interns for the 1956-1957 school year should apply immediately for admission to: Professor Claude Kulp, Elementary Teacher Education Program, Rand Hall.

THE EXTRAMURAL DIVISION

COURSES are available through the Division of 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. Credit is recorded in the Registrar's office the same 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. 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 for courses through the Division of Extramural Courses should apply for information to the Director of the Division, 207 Stone Hall.

THE SUMMER SESSION

THE ADMINISTRATIVE BOARD of the Summer Session 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, 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 designed with particular regard for what can satisfactorily be treated in a short term and in the summertime. 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. Admission will not be granted to persons who are inadequately trained for the work they propose, or whose records in Cornell University or elsewhere are unsatisfactory. Nor will admission be granted to persons whose purposes seem inadequate or inappropriate or better served by other work at other institutions.

The *Announcement of the Summer Session* and application forms for admission are available from the Director of the Summer Session, 356 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 Session in 1956 will take place July 2, and classes will begin July 3, extending through August 11.

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, the Dean of Men, and the 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 information concerning schools and colleges and related matters, 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. *SEMINAR IN PERSONNEL ADMINISTRATION IN EDUCATIONAL INSTITUTIONS*. Spring term. Credit two hours. Open to graduate students in education. Th 4-6. Stone 201. Professor WINSOR.

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 212. Assistant Professor WARDEBERG.

Designed for superintendents, principals, and others in supervisory positions. 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. ———. Professor ELLIOTT.

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 212. Professor ELLIOTT.

A course in school administration dealing with 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 FINANCES AND FACILITIES*. Fall term. Credit three hours. Prerequisite, 261 or equivalent. Th 4:15-5:45 and one hour to be arranged. Warren 201. Professor ELLIOTT.

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*. Credit two hours. Not given in 1956-1957.]

R.E. 268. *SEMINAR IN EDUCATIONAL ADMINISTRATION*. Spring term. Credit two hours. M 4-5:30. Warren 260. Professor ELLIOTT.

Designed for majors in administration and supervision who are ready to undertake their research. Attention is focused on research in administration.

AGRICULTURAL EDUCATION

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

A seminar type of course, with observations in near-by departments of agriculture, in orientation, preparation, and selection of the trainee for directed teaching in off-campus cooperating school centers.

R.E. 132. *METHODS, MATERIALS, AND DIRECTED PRACTICE IN TEACHING VOCATIONAL AGRICULTURE IN THE SECONDARY SCHOOL*. Fall term. Credit nine hours. 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.

R.E. 133. *SPECIAL PROBLEMS IN VOCATIONAL AGRICULTURE*. Spring term. Credit as arranged. STAFF in agricultural education.

Selected problems in vocational agriculture to meet particular needs of prospective teachers.

R.E. 134. *ORGANIZATION AND DIRECTION OF YOUNG FARMER GROUPS*. Fall term. Credit three hours. Assistant Professor CUSHMAN and STAFF in agricultural education.

Directed participation in off-campus centers in problems that serve the needs of young men on farms. The planning of local programs; the evaluation of the qualifications and opportunities of young men for placement and progressive establishment in farming or in the related-farm occupations; and their cooperative relationships with, and the training for leadership in, other youth and adult organizations.

R.E. 230. *SEMINAR IN AGRICULTURAL EDUCATION*. Spring term. Without credit for seniors, adult special, and graduate students in agricultural education. T 7-9 p.m. Stone 201. STAFF in agricultural education.

[R.E. 231. *SUPERVISION IN VOCATIONAL AGRICULTURE*. Fall term. Credit two hours. Taught in alternate years. Professor SMITH. Not given in 1956-1957.]

R.E. 232. *METHODS OF INSTRUCTION IN VOCATIONAL AGRICULTURE*. Fall term. Credit two hours. Open to students with experience in teaching vocational agriculture. S 9-11. Stone 212. Professor HILL.

Consideration will be given to the selection of units of instruction, developing specific teaching objectives, analysis of farming problems, selection of teacher-pupil activities, and the evaluation of learning experience as applied to individual and group instruction.

R.E. 233. *SUPERVISED FARMING PROGRAMS IN VOCATIONAL AGRICULTURE*. Spring term. Credit two hours. T 4:15-6. Stone 201. Assistant Professor TOM.

Meaning and function of farming programs; how they are planned and used as a means of instruction in vocational agriculture.

R.E. 234. *EDUCATION FOR LEADERSHIP OF FARM YOUTH AND ADULT GROUPS*. Fall term. Credit two hours. F 4:15-6. Stone 201. Assistant Professor CUSHMAN.

Designed for leaders in the field of agricultural education who are responsible for organizing programs. A consideration of the principles involved in organizing and conducting out-of-school programs for young and adult farmers.

R.E. 235. *THE PREPARATION OF TEACHERS IN VOCATIONAL AGRICULTURE*. Fall term. Credit two hours. Open to students with experience in teaching vocational agriculture or by permission. M 4:15-6. Stone 201. Professor SMITH.

R.E. 236. *THE ORGANIZATION AND ADMINISTRATION OF VOCATIONAL*

AGRICULTURE IN THE SECONDARY SCHOOL. Spring term. Credit two hours. W 4:15-6. Stone 201. Assistant 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. 237. *PLANNING COURSES OF STUDY AND PROGRAMS OF WORK FOR VOCATIONAL EDUCATION IN AGRICULTURE.* Spring term. Credit three hours. Registration by permission. Th 4:15-6 and one hour by appointment. Special trips to be arranged. Warren 201. Professor HILL.

The development of basic and individualized courses of study and comprehensive programs of work. An evaluation of the effectiveness of vocational education in agriculture in selected high school departments to determine patterns for course building and program planning.

R.E. 238. *MATERIALS OF INSTRUCTION IN VOCATIONAL AGRICULTURE.* Fall term. Credit two hours. Open to students with experience in teaching vocational agriculture. M 7-9 p.m. Stone 201. Assistant Professor TOM.

Consideration is given to the selection, preparation, adaptation, organization, and evaluation of instructional materials for use in teaching vocational agriculture.

R.E. 239. *PREVOCATIONAL AGRICULTURE IN THE SECONDARY SCHOOL.* Spring term. Credit two hours. F 4:15-6. Stone 201. Professor SMITH.

The purpose, content, and methods of instructions in agriculture at the prevocational level, and as general education.

CURRICULUM, ELEMENTARY AND SECONDARY EDUCATION

Ed. 24. *SOCIAL STUDIES IN THE ELEMENTARY SCHOOL.* Fall term. Credit two hours. S 9-10:40. ———.

A workshop in which group discussion is combined with curriculum planning. Attention will be given to the contributions which the social studies can make to general elementary education. Each member of the class will have the opportunity to organize learning experiences for the grade level in which he is most interested.

Ed. 130. *THE ART OF TEACHING.* Fall term: credit ten hours; spring term: credit ten hours. W F 8 and other hours to be arranged. Students will register for either fall or spring term on the advice of course instructors. Assistant Professor HIXON, Professor JOHNSON, Miss DEPEW, Mr. BENNETT, Mr. CATALFANO, Mr. PFAFF.

For students preparing to teach mathematics, English, social studies, science, languages, or art 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.

R.E. 140. *THE ART OF TEACHING.* Fall or spring term. Credit eight or twelve hours. M F 8-12 and other hours to be arranged. Prerequisite, consent of the instructor. Conference Room, Stone. Assistant Professor WARDEBERG.

For seniors preparing to teach in areas of early childhood or elementary education. Principles, methods, and materials for effective teaching will be studied. Students will be placed in elementary classrooms in Ithaca and surrounding communities for directed student teaching.

R.E. 247. *SEMINAR IN ELEMENTARY EDUCATION.* Spring term. Credit two hours. S 9-11. Stone 201. Assistant Professor WARDEBERG.

For resident or extramural graduate students who are experienced teachers working on special problems in elementary education.

R.E. 276. *PRINCIPLES OF CURRICULUM BUILDING*. Fall term. Credit two or three hours. W 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. 277. *SEMINAR IN CURRICULUM*. Spring term. Credit two hours. Prerequisite, Course 276 or the equivalent. W 2-3:30. Stone 212. Professor STUTZ.

Advanced work in curriculum study or planning.

Ed. 278. *SEMINAR IN SECONDARY EDUCATION*. Spring term. Credit two hours. M 4-6. Prerequisite, consent of instructor. Assistant Professor HIXON.

Ed. 290. *SECONDARY EDUCATION*. Fall term. Credit three hours. T Th S 9. Assistant Professor HIXON.

A study of the nature, function, organization, curriculum, and extension of secondary education in its adaptations to present-day needs and conditions.

R.E. 292. *SEMINAR IN SOCIAL STUDIES EDUCATION*. Spring term. Credit as arranged. M 4:15. Stone 212. Professor STUTZ.

Designed for resident or extramural students who are working on special problems in the teaching of the social studies. Approval of the instructor is necessary prior to registration.

R.E. 313. *METHODS OF TEACHING READING*. Fall term. Credit two hours. Th 4-6. Stone 212. Assistant Professor WARDEBERG.

For inexperienced teachers and students preparing to teach in the elementary school. A study of methods, materials, and techniques in the teaching of reading.

R.E. 314. *METHODS OF TEACHING ARITHMETIC*. Spring term. Th 4-6. Stone 212. Assistant Professor WARDEBERG.

For inexperienced teachers and students preparing to teach in the elementary school. A study of methods, materials, and techniques in the teaching of arithmetic.

[R.E. 315. *READING IN THE SECONDARY SCHOOL*. Spring term. Credit two hours. Given every third year. Professor GLOCK. Not given in 1956-1957.]

R.E. 316. *REMEDIAL READING*. Spring term. Credit two hours. Permission of instructor required. M 4-5:30. Stone 201. Professor GLOCK.

A study of the basic principles in diagnosis and remediation.

EDUCATIONAL PSYCHOLOGY

R.E. 10. *PSYCHOLOGY*. Fall or spring term. Credit three hours. Recommended primarily for freshmen and sophomores. Fall, M W 10 and one hour to be arranged; Spring, M W 10 and one hour to be arranged. Plant Science 233. Associate Professor AHMANN.

Consideration of the outstanding psychological concepts that bear upon personal problems and social relationships.

Psych. 103. *EDUCATIONAL PSYCHOLOGY*. Fall term. Credit three hours. Primarily for prospective teachers. Prerequisite, a first course in psychology. M W F 11. Professor FREEMAN. (Equivalent of R.E. 111.)

R.E. 111. *EDUCATIONAL PSYCHOLOGY*. Fall or spring term. Credit three hours. Prerequisites, Biol. 9, Zool. 201, or Human Physiology 303 and R.E. 10 or Psych. 101. Not open to freshmen. Lectures, M W F 9. Comstock 245. 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 three hours. Prerequisite, a course in elementary or educational psychology. M W F 11. Caldwell 100. Professor ELLIOTT.

A study of behavior during adolescence, of tasks involved in developing maturity, and of the effects on development of some social conditions.

R.E. 211. *EDUCATIONAL PSYCHOLOGY*. Fall term. Credit three hours. Permission of the instructor required. M W 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. 213. *SEMINAR IN EDUCATIONAL PSYCHOLOGY*. Spring term. Credit two hours. Alternates with Course 251. Prerequisite, R.E. 299 or equivalent, and permission of the instructor. Associate Professor AHMANN. Not given in 1956-1957.]

R.E. 251. *EDUCATIONAL MEASUREMENT*. Spring term. Credit three hours. Candidates for a principal's certificate may register for two hours' credit. To be alternated with R.E. 213. Prerequisite, a course in educational psychology or permission of instructor. M W F 11. Warren 245. Associate Professor AHMANN.

A study of the construction of achievement tests and the use of aptitude tests, achievement tests, and other measuring instruments in the classification and guidance of pupils and improvement of instruction.

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

A study of common statistical procedures encountered in educational literature and research. The course 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. Associate Professor AHMANN. Not given in 1956-1957.]

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 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 or juniors. Prerequisite, 6 hours in psychology and a course in statistics, or consent of the instructor. T Th S 9. 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 individual scales. Demonstrations in administering and interpreting individual 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. T Th S 9. Professor FREEMAN.

Basic psychological principles in the construction and use of personality rating scales, personality inventories, projective techniques, and situational tests. Demonstrations.

[Psych. 410. *INDIVIDUAL DIFFERENCES.* Spring term. Credit three hours. Prerequisite, Psych. 351 or equivalent, or consent of instructor. Professor FREEMAN. Not given in 1956-1957.]

[Psych. 411. *PROCEDURES IN CLINICAL PSYCHOLOGY.* Spring term. Credit three hours. Prerequisite, Psych. 351 and a course in personality development, or their equivalents. Primarily for graduate students. All students must have consent of the instructor. PROFESSOR FREEMAN. Not given in 1956-1957.]

Psych. 543. *PRACTICE IN PSYCHOLOGICAL TESTING.* Either term. Credit and hours to be arranged. Prerequisite, Psychology 351 or 352, or equivalent. For graduate students. All students must have consent of the instructor. Limited enrollment. Professor FREEMAN and Dr. MEYER.

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

EXPERIMENTAL PROGRAM IN ELEMENTARY TEACHER EDUCATION

Ed. 248. *OBSERVATION AND STUDENT TEACHING.* Fall and spring terms. Credit ten hours each term. Professors KULP, CAMPBELL, and STAFF.

Internship program of the Cornell experiment in the education of elementary teachers. Minimum of fifteen clock hours each week devoted to directed observations of and gradual induction into classroom teaching in elementary schools in Ithaca and surrounding communities. This internship phase of the program is closely coordinated with Ed. 249.

Ed. 249. *SEMINAR IN ELEMENTARY TEACHER EDUCATION.* Credit six hours. Professors KULP, CAMPBELL, and STAFF.

Problems identified by the students in the internship phase of the Cornell experimental program in the education of elementary teachers will become focal points of discussion in the seminar. Essential understandings from the fields of Human Development, Curriculum Planning, History and Philosophy of Education, and Methods of Learning will be developed in relation to specific problem situations identified by the students in Ed. 248. Planned to meet certification requirements of the New York State Education Department.

EXTENSION, ADULT, AND HIGHER EDUCATION

R.E. 214. *COLLEGE TEACHING.* Fall term. Credit two hours. 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 broad-

ening their knowledge of the Extension Service. W 2-3:30. Warren 260. 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 160. 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 160. 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 three hours each term. M 4-5:30 and F 2-4. Warren 132. Limited to Ford Foundation fellows in Extension Education except by invitation. Professors MOSHER and LEAGANS and STAFF.

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 260. 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. Th 2-3:30. Stone 201. Professor MOSHER.

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 1956-1957.]

[R.E. 294. *PRINCIPLES AND PHILOSOPHY OF ADULT EDUCATION*. Spring term. Credit two or three hours. Not given in 1956-1957.]

[R.E. 298. *RURAL EDUCATIONAL LEADERSHIP*. Spring term. Credit two

hours. For graduates and advanced undergraduates. Especially appropriate for public school teachers, school principals, social workers, agriculture and home economics workers, and directors of adult education. Professor LEAGANS. Not given in 1956-1957.]

H.E. Ed. 437. *ADULT EDUCATION*. Fall term. Credit two or three hours. T 4:15-5:45. Van Rensselaer 124. Open to undergraduates with permission. Associate Professor PATTERSON. (See page 45 for description.)

H.E. Ed. 438. *SEMINAR IN ADULT HOME ECONOMICS EDUCATION*. Spring term. Credit two hours. T 4:15-5:45. Van Rensselaer 124. Associate Professor PATTERSON. (See page 46 for description.)

GENERAL

Educ. 7. *READING IMPROVEMENT PROGRAM*. Fall or spring term. Noncredit. Prerequisite, all students are required to take the Cooperative Reading Test at times to be announced. Lecture and discussion: M W 8, 9, 10, 11, 1:00, 2:00, or T Th 8, 9, 10, 11, 1:00, 2:00. 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. Enrollment limited to juniors and seniors. M W F 10. Warren 145. Professor STUTZ.

Evaluation of the school as a social institution with emphasis on the role of the school in a democratic society.

[R.E. 194. *PRINCIPLES OF VOCATIONAL EDUCATION*. Spring term. Credit two hours. Given in alternate years. Professor SMITH. Not given in 1956-1957.]

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. 299. *EDUCATIONAL RESEARCH METHODS*. Fall term. Credit two hours. For graduate students preparing for or engaged in research in education. M W 11. Warren 345. Associate Professor AHMANN.

Consideration of the basic research methods as applied to education and the principles of thesis writing.

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. Assistant Professor PEARD.

Ed. 499. *INFORMAL STUDY IN EDUCATION*. Maximum credit three hours each term. Members of the STAFF.

Ed. 500. *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.

GUIDANCE AND PERSONNEL ADMINISTRATION

Ed. 280. *INTRODUCTION TO STUDENT PERSONNEL ADMINISTRATION*. Fall term. Prerequisite, consent of the instructor. Credit two hours. T 10-12. Conference Room, Day. Assistant Professor PEARD and STAFF.

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

Ed. 281. *ADMINISTRATION OF STUDENT PERSONNEL WORK*. Spring term. Prerequisite, consent of the instructor. Credit two hours. T 10-12. Conference Room, Day. Assistant Professor PEARD and STAFF.

The various aspects of student personnel work in higher education with an emphasis upon their function.

R.E. 282. *EDUCATIONAL AND VOCATIONAL GUIDANCE*. Fall term. Credit two hours. For graduate students only. S 9-11. 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 METHODS*. Spring term. Credit two hours. For graduate students only. Prerequisite, Courses 255 and 282 or equivalents. M 9-11. Warren 201. Professor NELSON.

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

R.E. 284. *GROUP TECHNIQUES IN GUIDANCE*. Spring term. Credit two hours. S 9-11. Warren 201. Professor NELSON.

Methods and materials for presenting occupational and orientation information to students. Deals with classes in occupations, orientation groups, field trips, clubs, work-experience programs, and other group methods.

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*. Either term. Credit to be arranged. 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. All day Wednesday. 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. Conference room, Day. Dean BALDWIN, 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. Conference room, Day. Professor BROOKS and STAFF.

HISTORY AND PHILOSOPHY OF EDUCATION

Ed. 244. *PHILOSOPHY OF EDUCATION*. Spring term. Credit two hours. For mature students, preferably with teaching experience. W 4-6. Assistant Professor HIXON.

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

[R.E. 296. *HISTORY OF AMERICAN EDUCATION*. Spring term. Credit three hours. Professor STUTZ. Given in alternate years. Not given in 1956-1957.]

R.E. 297. *HISTORY OF EDUCATION IN THE MODERN PERIOD*. Spring term. Credit three hours. T Th 9-10:30. 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, AND CONSERVATION EDUCATION

[R.E. 106. *OUTDOOR LIVING AND CAMP ADMINISTRATION*. Fall term. Credit three hours. Registration by permission of instructor only. Assistant Professor FISCHER. Not given in 1956-1957.]

R.E. 107. *THE TEACHING OF NATURE STUDY AND ELEMENTARY SCHOOL SCIENCE*. Fall or spring term. Credit two hours. Open to seniors and graduate students and juniors by permission. Designed particularly for those who are preparing to teach or supervise nature study or science. Lecture, S 8. Practical exercises, S 9-11:30. Stone 7. ———.

The content and methods of nature study and of elementary-school science, with field work and laboratory experience useful in classroom and camp.

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. Lecture, T or F 4:30. Stone 7. Weekly field trips, T or F 2-4:30, begin with first meeting and continue regardless of weather. Friday section primarily for those experienced in field biology. Assistant Professor FISCHER.

The course is devoted to studies of local plants and animals, their ecology, and their relations to humans. Applications to teaching science and conservation are emphasized. May be taken one or both terms.

R.E. 128. *METHODS OF TEACHING SCIENCE IN SECONDARY SCHOOLS*. Spring term. Credit three hours. Permission of the instructor. For seniors and graduate students. Th 2-5:30 and additional hours to be arranged. Stone 7. Professor JOHNSON.

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 four 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.

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

[R.E. 202. *NATURE LITERATURE*. Fall term. Credit two hours. Given in alternate years. Open to seniors and graduate students interested in nature, science, and conservation education. Not given in 1956-1957.]

[R.E. 203. *WRITING IN NATURE, SCIENCE, AND CONSERVATION EDUCATION*. Spring term. Credit two hours. Open to seniors and graduate students interested in nature, science, and conservation education. Assistant Professor FISCHER. Not given in 1956-1957.]

R.E. 205. *THE TEACHING OF CONSERVATION*. Spring term. Credit two hours. T Th 10. Stone 7. Assistant 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. *METHODS AND MATERIALS FOR THE TEACHING OF SCIENCE IN SECONDARY SCHOOLS*. Fall term. Credit three hours. Registration by permission only. Th 2-5:30. Stone 7. Professor JOHNSON.

A consideration of problems of selection and organization of subject matter, of choice and use of materials, and of methods of teaching earth sciences at the secondary school level.

[R.E. 209. *THE DEVELOPMENT OF NATURE AND SCIENCE EDUCATION IN THE UNITED STATES*. Fall term. Credit two hours. Professor ————. Given in alternate years. Not given in 1956-1957.]

R.E. 226. *RESEARCH IN NATURE STUDY, SCIENCE, AND CONSERVATION EDUCATION*. Fall or spring term. Credit one hour a term. M 4:30-6. Stone 7. Professor JOHNSON, Assistant Professor FISCHER, and ————.

A seminar dealing with special problems.

HOME ECONOMICS EDUCATION

H.E. Ed. 110. *HOMEMAKING EDUCATION AND THE COMMUNITY*. Fall term. Credit one hour. T or Th 12. Van Rensselaer 124. Professor HUTCHINS.

This course is offered to help the student who is planning to be a homemaker to understand the place in which she may serve in educational programs in her community. It will also give her a basis for understanding ways in which home economics serves all members of the family. It may help her in making a vocational choice. Opportunity will be given to observe homemaking programs which are being conducted by the extension service, public schools, and other educational agencies.

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 advisers 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.

H.E. Ed. 310. *THE HOME ECONOMIST AS A TEACHER*. Spring term. Credit two hours. T Th 11. Van Rensselaer 124. Open to upperclassmen. Associate Professor HOEFER.

This course is designed for home economics students who plan to be dietitians, social workers, or homemakers, and others who will be working with groups of people on an informal basis and so will be concerned with the educational process. The course will include study of educational objectives, factors affecting the learning process, various methods of instruction applicable to informal groups, demonstrations and discussions of group teaching, conferences, and committees.

[H.E. Ed. 320. *EXTENSION EDUCATION*. Fall and spring terms. Credit two hours. Associate Professor HOFER. Not given in 1956-1957.]

[H.E. Ed. 321. *EXTENSION EDUCATION*. Fall and spring terms. Credit eight hours. Associate Professor HOFER. Not given in 1956-1957.]

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.

Student teachers 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. This course must precede Home Economics Education 331. Discussion period. T Th 8. Van Rensselaer 3M11. 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. Directed teaching for one-half of the term and general conferences throughout the term. Hours and room to be arranged. This course is a continuation of Home Economics Education 330. During this term the student registers for only one other course, Homemaking Apartments 302. Students live in the Homemaking Apartments for one-half of the term and in the communities in which they teach for the other half of the term. Student teachers 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 HUTCHINS, Associate Professors BLACKWELL, HOFER, MOSER, and PATTERSON, Assistant Professor ENGBRETSON.

H.E. Ed. 437. *ADULT EDUCATION*. Fall term. Credit two or three hours, T 4:00-5:45. Van Rensselaer 124. Open to undergraduates with permission of the instructor. Associate Professor PATTERSON.

This introductory course is planned for students interested in understanding the importance of adult education. These include teachers, administrators, directors of adult education, extension agents, parent educators, and others. Attention is focused on finding educational needs, planning programs suited to adult learners, choosing teaching procedures and materials for adults, promotion of programs, and philosophy and evaluation in adult education. A wide variety of adult education activities in the Ithaca area provides opportunities for students to observe the application

of principles to local programs. Students taking the third credit may observe and assist in teaching adults in local programs or do a special problem.

H.E. Ed. 438. *SEMINAR IN ADULT HOME ECONOMICS EDUCATION*. Spring term. Credit two hours. T 4-5:45. Van Rensselaer 124. Associate Professor PATTERSON.

Planned for students specializing in adult education. It usually follows H.E. Ed. 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 in the relative emphasis 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. T Th 10 and other hours to be arranged. Van Rensselaer 301. Associate Professor PATTERSON.

Designed for students with teaching experience in college, extension, secondary schools, and adult programs. Attention is given to the place of discussion, demonstration, laboratory, trips, and use of radio, films, and recordings in teaching home economics. Opportunity is provided for experimentation with different teaching aids and procedures.

H.E. Ed. 459. *EVALUATION*. Fall term. Credit three hours. M W F 10. Van Rensselaer 3M11. Associate Professor BLACKWELL.

For high school and college teachers, administrators, extension agents, and educational research workers. 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. Other students will be admitted by permission of the instructor.

H.E. Ed. 460. *SEMINAR IN EVALUATION*. Spring term. Credit two hours. Prerequisites, H.E. Ed. 459 and R.E. 253 or equivalent. M W 10. Van Rensselaer 3M11. Associate Professor BLACKWELL.

Opportunity for intensive study of the literature concerning educational evaluation, for refinement of appraisal techniques, and for analysis and interpretation of data from current research.

H.E. Ed. 470. *AN INTERDEPARTMENTAL COURSE IN HOME ECONOMICS*. Fall term. Credit three hours. M W F 9. Van Rensselaer 3M11. Associate Professor HOEFER.

An interdepartmental course contributed to by all departments of the College of Home Economics and coordinated by a member of the Home Economics Education staff. Planned for graduate students specializing in one area of home economics or allied fields who wish to gain an overview of current beliefs and developments in home economics.

H.E. Ed. 475. *READINGS IN EDUCATION*. Spring term. Credit two hours. T Th 11. Van Rensselaer 301. Associate Professor PATTERSON.

Critical analysis of current literature in the field of education and consideration of major issues.

H.E. Ed. 480. *SEMINAR IN HOME ECONOMICS EDUCATION*. Fall and spring terms. No credit. M 4. Van Rensselaer 3M11. DEPARTMENT STAFF.

H.E. Ed. 485. *SUPERVISION OF THE RESIDENCE EXPERIENCE IN HOME-MAKING*. Spring term. Credit two hours. T 9-11. Apartment B. Van Rensselaer. Instructor's signature required at preregistration. Assistant Professor ENGEBRETSON.

This course is planned for home management house advisers and others preparing for this type of teaching. Attention is focused on organization, supervision, and methods of teaching a residence course.

INDUSTRIAL AND TECHNICAL EDUCATION

The program in industrial and technical education is designed to prepare persons for administrative and supervisory positions in the field of industrial and technical education in the public schools, and for positions in training departments in industrial establishments.

DEVELOPMENT OF WRITTEN INSTRUCTIONAL MATERIALS (ILR) 333. (Open to advanced undergraduate and graduate students.) Credit two hours. Fall term.

Study of the various types of written instructional materials used in educational programs, with emphasis on the procedures and techniques used in their preparation. The application of educational principles to written instructional materials; analytical and other techniques used in developing the course of study or the outline of the content; formats; writing the manuscript copy; illustrating the instructional manual; reproduction processes for instructional materials; and the preparation of copy for the printer. Applicable to the development of training manuals in industry, instruction manuals for vocational schools, textbooks, and other types of written instructional materials.

DISCUSSION LEADERSHIP IN EDUCATION AND INDUSTRY (ILR) 334. (Open to advanced undergraduate and graduate students.) Credit three hours. Spring term.

A study of the principles and methods involved in leading effective group discussions, particularly with adults in education, industry, labor, and government. Concepts emerging from studies in group dynamics and contributing disciplines will be examined for their special value in planning, conducting, and reporting discussions. Content will include the following methods and procedures found helpful in groups of varying size and purpose: role-playing, case-studies, ideation sessions, the incident process, conference leadership; the use of panels, symposiums, dialogues, and interviews to advance the exchange of ideas between an audience and its leaders. Special emphasis will be placed on conference leadership, and students will be expected to lead discussions on current topics and problems.

TRAINING IN INDUSTRY (ILR) 364. Credit three hours. Spring term.

A study of the concepts and means used by management to develop skills, understandings, and attitudes of employees. Consideration is given to planning and administering training programs, including policy formation, coordination, staffing, selection of facilities, preparation of budget, use of records and reports, evaluation and publicity; and to both intermittent and continuous programs, including apprenticeship, job instruction, orientation, supervisory and executive development, and general education courses. Attention is given to determining training needs, objectives, and schedules, and to the selection of effective methods, devices, and incentives.

INDUSTRIAL EDUCATION (ILR) 530. Spring term.

A graduate course providing a broad overview of educational principles and practices pertaining to training within industry, workers' education, and industrial education in public and private institutions. Basic principles of adult education; methods of teaching adults; development of courses of study; appraisal and development of instructional materials; organizational patterns of program; legislation affecting industrial education; interrelationships between public industrial education, management, and organized labor.

INDUSTRIAL EDUCATION (ILR) 631. Spring term.

A graduate seminar dealing with problems of special importance in the field of industrial education within industry and in public industrial and technical institutions at the present time.

INTERDEPARTMENTAL COURSES

Soc. 101. *AMERICAN SOCIETY*—I. Either term. Credit three hours. Open to all students. Fall term, lectures for freshmen T Th 10, or M W 11, with discussion sections to be arranged. Spring term, lectures T Th 10, with discussion sections to be arranged. Assistant Professors STREIB and KAPLAN, and STAFF.

Lectures for upperclassmen: fall term, T Th S 9. Professor WILLIAMS.

An analysis of social organization in the contemporary United States. Emphasis is placed on major American institutions—the family and kinship, social classes, ethnic groups, associations, social aspects of economic and political organization, education, and religion.

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, M 9, 10, 11, T 9, 11, W 8, 9, 10, 11, Th 8, 9, 11 or F 8, 9, 10, 11.

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

THE NATURE OF MAN: DEVELOPMENT AND PERSONALITY (Psychology 202). Fall. Credit three hours. Prerequisite, one of the following: a course in Psychology, Sociology-Anthropology, Child Development and Family Relationships, or Zoology 201 (or equivalent), or consent of instructor. Messrs. BRONFENBRENNER and LAMBERT. M W F 10.

A study of the development of personality from infancy to adulthood viewed from a biological, psychological, and cross-cultural perspective. Special emphasis is given to the role of social interaction, beliefs, and values both as determinants and products of personality.

THE NATURE OF MAN: CULTURE AND PERSONALITY (Sociology-Anthropology 203). Spring. Credit three hours. Prerequisite, one of the following: a course in Psychology (preferably Psychology 202), Sociology-Anthropology, Child Development and Family Relationships, or Zoology 201 (or equivalent), or consent of instructor. Messrs. OPLER and LAMBERT. 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.