

# Cornell University

## ANNOUNCEMENTS

### School of Education



1966-67

# Academic Calendar

	1965-66	1966-67
Freshman Orientation	S, Sept. 18	S, Sept. 17
Registration, new students	M, Sept. 20	M, Sept. 19
Registration, old students	T, Sept. 21	T, Sept. 20
Instruction begins, 1 p.m.	W, Sept. 22	W, Sept. 21
Midterm grades due	W, Nov. 10	W, Nov. 9
Thanksgiving recess:		
Instruction suspended, 12:50 p.m.	W, Nov. 24	W, Nov. 23
Instruction resumed, 8 a.m.	M, Nov. 29	M, Nov. 28
Christmas recess:		
Instruction suspended, 12:50 p.m.	S, Dec. 18	W, Dec. 21
(10 p.m. in 1966)		
Instruction resumed, 8 a.m.	M, Jan. 3	Th, Jan. 5
First-term instruction ends	S, Jan. 22	S, Jan. 21
Registration, old students	M, Jan. 24	M, Jan. 23
Examinations begin	T, Jan. 25	T, Jan. 24
Examinations end	W, Feb. 2	W, Feb. 1
Midyear recess	Th, Feb. 3	Th, Feb. 2
Midyear recess	F, Feb. 4	F, Feb. 3
Registration, new students	S, Feb. 5	S, Feb. 4
Second-term instruction begins, 8 a.m.	M, Feb. 7	M, Feb. 6
Midterm grades due	S, Mar. 26	S, Mar. 25
Spring recess:		
Instruction suspended, 12:50 p.m.	S, Mar. 26	S, Mar. 25
Instruction resumed, 8 a.m.	M, Apr. 4	M, Apr. 3
Second-term instruction ends, 12:50 p.m.	S, May 28	S, May 27
Final examinations begin	M, May 30	M, May 29
Final examinations end	T, June 7	T, June 6
Commencement Day	M, June 13	M, June 12

*The dates shown in the Academic Calendar are tentative.*

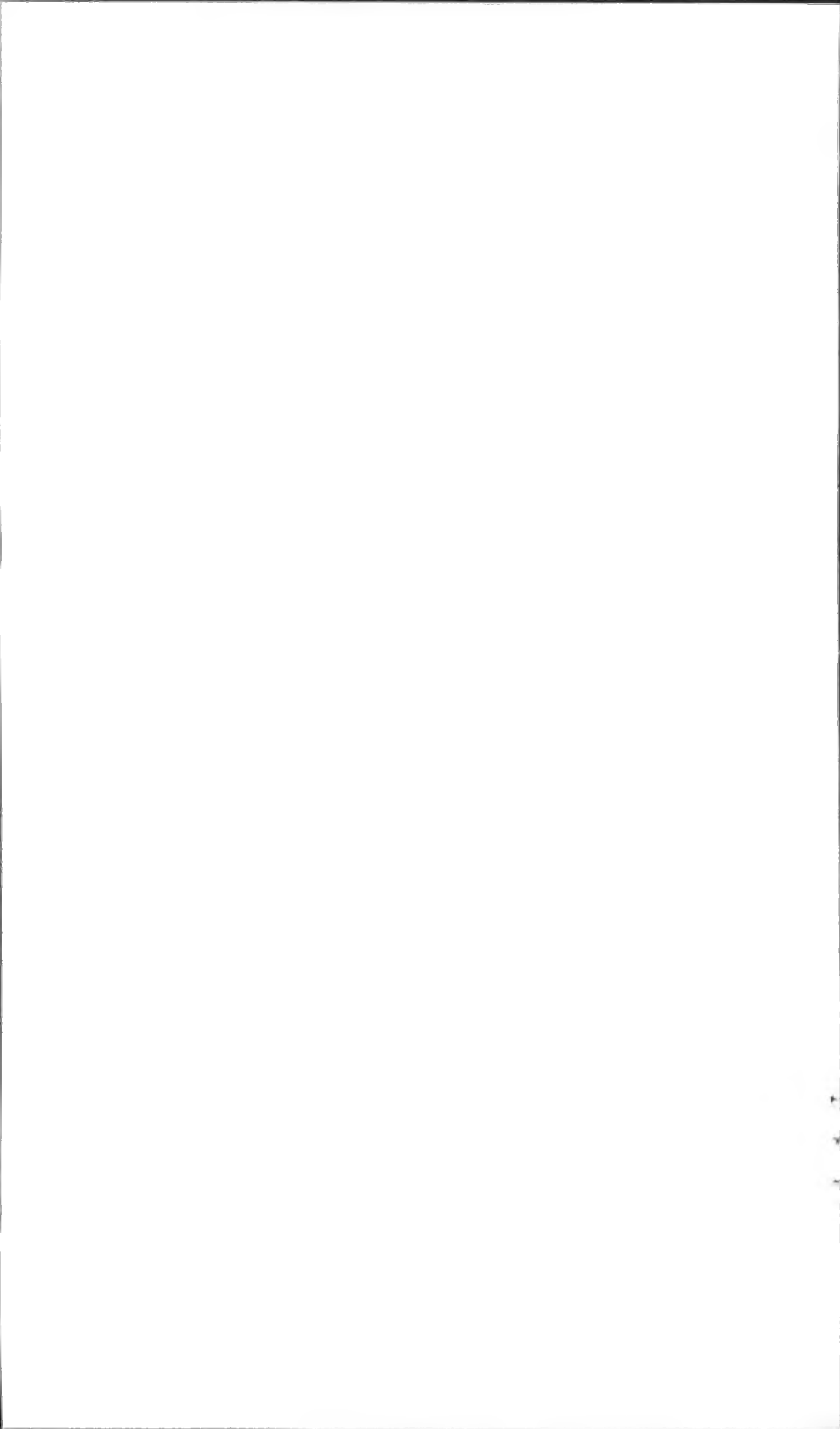
## CORNELL UNIVERSITY ANNOUNCEMENTS

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School of Education

1966-67



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# Cornell University

## SCHOOL OF EDUCATION

The School of Education is a graduate professional school concerned with the study and practice of education. Its chief purpose is to serve as a university center for scholarly and professional concerns affecting aims and objectives, instruction, learning, curriculum, and educational organization and administration. The faculty of the School believes that education is a discipline worthy of rigorous scholarly study, that such study is best conducted in a university setting, and that the primary responsibilities of the School are the preparation of scholars and the contribution of knowledge for the field of education.

The School sees the need to emphasize four centers or areas of graduate training and scholarly strength — educational psychology and learning theory, curriculum and instruction, educational administration and organization, and history and philosophy of education. Allied with these areas and drawing on their resources are the traditionally strong programs of the state colleges at Cornell in home economics education, agricultural education, science education, extension education, and guidance and counseling.

Graduate students working in general or professional degree programs are encouraged to select sequences of courses and practicum experiences suited to individual needs and goals, and to avail themselves of the curricular and scholarly resources of the University. Degree candidates are expected to develop competencies in educational research and are invited to associate with the faculty in continuing research projects. Students will find members of the faculty with widely differing backgrounds and interests and coming from several units of the University as well as the School.

As a professional unit of the University, the School assumes a responsibility for leadership in the profession of education, particularly for the preparation of teachers and other specialists for the schools and colleges. The School works closely with other units of the University in the preparation of teachers and educational specialists. Undergraduates follow degree programs in their respective colleges or schools but undertake professional study and practice under the supervision of the faculty of the School of Education. Four-year programs leading to pro-

visional certification are available in some fields, but five-year sequences leading to a permanent license are encouraged.

Programs for graduate students and undergraduates are registered with and approved by the New York State Education Department and by the National Council for Accreditation of Teacher Education. The University is a member of the American Association of Colleges of Teacher Education and of the University Council on Educational Administration. Cornell has been invited by New York State to initiate new programs for the preparation of teachers independent of present certification requirements.

The School of Education is interested in able students with strong backgrounds in liberal education and a thoughtful commitment to education who wish to associate with mature scholars in the study and practice of education. Such students will find opportunities to work closely with faculty members in individualized programs featuring courses, seminars, independent study, and practical experiences.

## GRADUATE PROGRAMS

### ADMINISTRATION AND SUPERVISION

Candidates in this subject are offered a broad, varied curriculum in the social sciences that relate to educational administration. Each student will work out an individualized, coordinated program with the help of his advisers. Emphasis is placed throughout upon independent study and research rather than the routine accumulation of course credits.

Instruction is conducted in a variety of ways. Internships and supervised field experiences emphasize technical and human skills. Courses in the social sciences develop the theoretical concepts upon which the art of administration is based. Study in educational administration integrates theory with the practical by means of case studies, simulation, specialized courses, and seminars.

Graduates accept positions as professors of educational administration or as administrators of school systems, colleges or universities.

For further information apply to Chairman, Division of Educational Administration, Stone Hall.

### AGRICULTURAL EDUCATION

The graduate program in agricultural education prepares the student for positions in teaching, research, supervision, and administration in public schools, technical schools, and colleges and universities, as well as for specialized positions as teacher-educators in agricultural education and as administrators in vocational education. Graduates may also follow careers in state and federal educational agencies or in overseas educational programs. Candidates may study for Master's degrees or for the Ed.D. or Ph.D.

Students may concentrate on aspects of agricultural education such as administration, curriculum, research, supervision, or teacher education. At the Master's level, prior experience as a teacher of agriculture is desirable but not required. For doctoral candidates, a minimum of three years prior experience in teaching, administration, or supervision is recommended.

Opportunities for programs tailored to individualized needs and interests characterize the graduate program in agricultural education. Candidates are encouraged to take a significant part of their course work in such related fields of study that will contribute to their professional goals.

Research training and experience will be gained through participation in studies on a local, state, or national basis. Many research projects are supported by state and national agencies or organizations.

Recent country-wide expansion in programs of vocational education afford many good career opportunities for specialists in agricultural education. Cornell graduates of this program hold positions in all the career fields previously described.



For further information, apply to Chairman, Division of Agricultural Education, Stone Hall.

## CURRICULUM AND INSTRUCTION

The field of curriculum and instruction is concerned with preparing teachers and with investigating what should be taught in schools and how it can be taught effectively. Scholarly activity in the field seeks to improve teacher education, and to achieve better understanding of the nature of curriculum, the factors that determine the selection and organization of curriculum elements, and the relation of curriculum to instruction. Opportunities for research also include the analysis of teaching behavior, the investigation of cognitive processes in instruction, and the development of curriculum materials, especially within the context of disciplinary structures.

The programs of study and research are designed to prepare advanced students for positions in colleges and universities involving research, development, and teaching in curriculum and instruction; the teaching of special methods courses; and the supervision of student teaching at the elementary or secondary level. Students may also prepare for positions in the public schools such as curriculum coordinator, department head, academic subject supervisor, and director of elementary or secondary education. Candidates for the Doctor of Philosophy or Doctor of Education degrees should satisfy minor requirements in an academic teaching field, in educational psychology, or in the history, philosophy, and sociology of education.

The Master of Arts in Teaching degree is available for liberal arts graduates seeking certification to teach in elementary schools or in the secondary school subjects of English, social studies, mathematics, and foreign languages. The Master of Arts and Master of Science degrees are designed for students who have already earned provisional certification or the equivalent; their programs of study may emphasize curriculum and instruction generally, a particular academic subject, or elementary education. Advanced study in the candidate's teaching field is not only possible, but required.

For further information apply to Chairman, Division of Curriculum and Instruction, Stone Hall.

## EDUCATIONAL PSYCHOLOGY AND MEASUREMENT

Educational psychology is a behavioral science. Its concepts and principles comprise the body of knowledge relevant to the improvement of classroom learning. Many disciplines—including anthropology, child development, psychology, and sociology—contribute to educational psychology through their research findings on the nature of growth and development, cognition, motivation, social interaction, and personality.

The need for more educational psychologists well-trained in the basic disciplines and in the newer patterns of educational research has been highlighted by the present nationwide emphasis on educational problems. Competent educational psychologists who have a strong background in the liberal arts and who have a broad understanding of the behavioral science fields and of the process of education, are being sought for positions in teaching and research in colleges and universities. Individuals who possess a thorough knowledge of educational measurement, research design, and statistical analysis, as well as a facility for using the tools of electronic data processing, are in great demand. Training in these subjects may be received in this division.

Programs in educational psychology and measurement emphasize human learning and its measurement. Students minor in at least one of the related sciences and enroll in the courses of various departments of the University such as psychology, or Child Development and Family Relationships, in addition to those offered in the School of Education. These experiences provide for a solid background in the basic disciplines as well as for personal contacts with faculty and students in other departments of the University. The Master's or the Ph.D. degree may be earned. Preference in admissions will be given to doctoral degree applicants or Master's degree applicants who intend to continue work for the doctorate.

The present research interests of personnel in the division include:

The measurement of cognitive abilities, particularly the measurement of those skills and understandings which are interdisciplinary in nature.

The determination of the relationships of learner and teacher characteristics to differential success in learning from various structured tasks.

The development of an understanding of how children acquire reading skills. There is a long-term project in literacy whose research focus is on this problem.

The study of learning, transfer, and forgetting of simple verbal materials.

Opportunities for research and teaching assistantships are varied. Students in educational psychology may receive appointments not only in their division, but in other units of the University.

At the present time, no school psychology program is offered.

For further information, apply to Chairman, Division of Educational Psychology, Stone Hall.

## EXTENSION AND ADULT EDUCATION

Cornell University has a graduate program in extension and adult education leading to both the Master's degree and the doctorate.

The program is designed to prepare administrators, supervisors, trainers, and other specialists for leadership positions in extension and adult education and community development agencies. The central objective is to develop creative professional leaders who can initiate, organize, and effectively execute such programs in differing economic,

cultural, and physical environments. The central focus is on helping students understand the nature and role of the extension education process and how to utilize it, both in this country and abroad, as the activating force in planned programs of economic and social change.

The curriculum is interdisciplinary in character and takes advantage of flexibility permitted by the Graduate School in formulating student programs. Individual study plans are developed through personal counseling. The theory, technology, principles, and methodology central to the extension-adult education process are covered in divisional graduate courses and seminars. Concepts gained from these studies form a nucleus around which students integrate study in a number of supporting disciplines that add to their understanding of problems encountered in programs of planned change.

Among faculty and student research interests are the structure of extension educational and community development organizations; the design of programs, comparative studies of organization, and practices in development; evaluation of programs, staffing, and training; and communications and adoption of practices.

Graduates of this division typically accept or return to positions of leadership in the Cooperative Extension Service in the United States or in national or international development agencies in other countries. Other candidates prepare for general university extension, church and missionary work, and other fields involving the development and execution of informal educational programs.

In addition to meeting standards of the Graduate School, applicants usually must have successful experience in extension or closely related work; leadership ability as evidenced by positions held, promotions, and recommendations; and sound reasons for undertaking graduate study in this field.

For further information, write to Chairman, Division of Extension and Adult Education, Stone Hall.

## GUIDANCE AND PERSONNEL ADMINISTRATION

Programs in this subject area, leading to a Master's or to a Doctor's degree, are appropriate for those who wish to prepare for positions in counseling, in college student personnel administration, or in related university teaching and research.

Teachers who wish to earn a Master's degree and concurrently become certificated for school counseling are referred to the program description on page 20.

Both men and women are eligible for a two-year program in student personnel administration leading to a Master of Arts degree. Students major in guidance and personnel administration and have a minor outside the School of Education in an area of study that supports their major interests. In addition to providing for rigorous academic study,

the program includes practicum experience involving professional responsibilities in a University residence hall and in a student personnel office. Each applicant should possess a strong undergraduate academic background and a professional commitment to college student personnel work. Two-year residence hall assistantships generally constitute an integral part of the program. Inquiries concerning this work-study program should be addressed to Stanley R. Levy, Associate Dean of Students, 132 Day Hall.

A student who wishes to embark upon a program leading to the doctorate will be helped to plan a sequence of courses that are appropriate for him, taking into consideration degree requirements, the student's previous preparation, and his vocational objective. In addition to work in guidance and personnel administration, he will have a minor in some branch of psychology, and a second minor selected in consultation with the chairman of his Special Committee who will represent the major. Inquiries concerning the doctoral program should be addressed to Chairman, Division of Guidance and Personnel Administration, Stone Hall.

## HISTORY, PHILOSOPHY, AND SOCIOLOGY OF EDUCATION

All doctoral students will be expected to have or develop an acquaintance with the following four areas in this field and to choose one for an area of specialization: history of education, philosophy of education, educational sociology, and comparative education. A candidate who chooses comparative education will also be expected to become a specialist in one of the other three branches.

Ordinarily about half of a candidate's program will include study in one or more of the following disciplines: history, philosophy, sociology, government, and economics. One minor for the doctorate must be outside the Field of Education.

Areas of faculty and student study and research interests include structure of subject matter, analysis of educational concepts, fundamental assumptions in educational research, critical thinking, relation of philosophy and education, rhetoric, logic in teaching, nature of theory in education, role of philosophy in teacher education, school-community relations, and social roles of teachers.

Doctoral graduates from this division typically accept appointments as college and university professors, although a few begin work directly in educational research for public agencies or businesses. For those preparing for college teaching, a practical experience is provided, including teaching, student evaluation, and course syllabus development. For those preparing primarily for a research position, relevant research experience is also provided.

For further information apply to chairman, Division of History, Philosophy, and Sociology of Education, Stone Hall.

## HOME ECONOMICS EDUCATION

Home economics education is an appropriate major for graduate students who wish to prepare for teaching, research, or administrative positions in colleges and universities; for secondary school teaching or supervision; or for work in the Cooperative Extension Service. The demand for home economists to fill such positions throughout the United States far exceeds the supply each year; there is also a growing demand for qualified home economics educators for new positions developing at the state and national level as a result of recent legislation, as well as for international positions.

It is expected that graduate majors in home economics education will have background in home economics and the related sciences and in education. Students without such background must be prepared to acquire it prior to or during the period of degree candidacy.

In consultation with the special committee, each student is encouraged to plan a program of courses and seminars selected from the various schools and colleges of the University and related to the student's particular concerns. Graduate courses in home economics education deal with the general areas of curriculum, teaching methods, and evaluation, and with the specialized areas of administration and supervision, adult education, higher education, and teacher education.

Students may acquire a variety of teaching and research experiences through course and seminar assignments, independent study, and assistantships. Emphasis is placed on developing teaching and evaluation materials which reflect current thought regarding home economics curriculum and human learning. Current research projects are related to home economics teacher education and supervision, secondary education in home economics (particularly its evaluation), characteristics of adolescents which have implications for vocational education, and international home economics. Student theses may contribute directly to these projects or may be independent of them.

For further information, write to Head, Department of Home Economics Education, Martha Van Rensselaer Hall.

## SCIENCE AND NATURE EDUCATION

Undergraduate and graduate programs in this area prepare for careers in elementary school teaching (science), secondary school science teaching, college science teaching, teacher preparation and supervision, and nature and conservation education. Candidates may earn the degree of Master of Science, Master of Arts in Teaching, Doctor of Philosophy, or Doctor of Education.

Candidates for an advanced degree, particularly those seeking the doctorate, can plan a degree program that will prepare them for college science teaching positions. Normally such a program will require further science courses and advanced education courses designed to strengthen teaching effectiveness. The candidate is advised to have some elementary

or secondary school experience or the equivalent before beginning a graduate teaching degree program.

Experienced teachers who are interested in the improvement of classroom teaching at pre-college levels find special opportunities in supervision and teacher preparation. The work may be at local, state, or national levels in public or private education. Many other nations of the world seek such services, too. The work usually requires special studies of new curricula, methods of teaching, guidance and evaluation, and supervision and administration, together with studies in the sciences and humanities.

Cornell's distinguished history in nature and conservation education is reflected in the large number of its graduates who are now leaders in scientific nature study, conservation education, and natural history writing. A growing awareness of our natural resources together with an increasing need to enjoy them while using them wisely, has contributed to a steady increase of job opportunities in these fields.

Teachers and others with strong interests in nature and conservation education who hold Bachelors' degrees, may follow Master's or doctorate degree programs that lead to teaching and administrative careers in public or private conservation departments or organizations, Audubon societies, interpretive nature programs, and extension work. In addition to upgrading a secondary school teaching certificate, graduate work in these fields can serve as preparation for college teaching.

Research projects under way in the division are concerned with natural history, conservation of natural resources, nature interpretation, history of science education, science curriculum development, and evaluation of science instruction. Graduate students have opportunities to develop research studies that help to clarify problems related to their future careers.

For further information apply to Chairman, Division of Science and Nature Education, Stone Hall.

## GRADUATE STUDY

Admission to study in the Graduate School is granted to graduates of approved colleges whose experience and academic backgrounds provide evidence of ability to succeed in study and practice in the various fields for which the School provides preparation. Members of the faculty examine carefully the application of each individual and make recommendations to the Graduate School relative to his fitness as a candidate. Every student seeking admission to the Graduate School must be admitted by the procedures required by that School before he registers in any course. Final admission decisions rest with the Dean of the Graduate School.

An applicant for admission may become a candidate for a general degree (M.A., M.S., or Ph.D.) administered by the Graduate School, or for a professional degree (M.A.T. or Ed.D.) administered by the Field of Education of the Graduate School.

Fundamental differences between programs leading to professional degrees and those leading to general degrees include the manner of meeting the residence requirement, the emphasis on research, the specification of hours of credit required, the extent of attention given to meeting certification requirements, and the extent of restriction to major and minor subjects of study in planning programs.

**STATUS OF ADMISSION.** 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.

Each admitted candidate in any status will work under the supervision of a committee of the graduate faculty. The committee is chosen by the student to give representation for his total program of study. Each non-candidate will have an adviser.

**APPLICATION.** An application for admission should be made on a form supplied by the Office of the Graduate School. No application will be acted upon until all the required credentials 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 an application may be filed at any time, the field cannot give assurance that it will receive the same consideration that it would have if filed during those periods.

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

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

**ENTRANCE EXAMINATION.** All applicants for candidacy to advanced degrees with majors in education — M.A., M.S., M.A.T., Ed.D., Ph.D. — residing in the United States or Canada, whose native language is English, are required to have scores submitted from the Miller Analogies Test and/or Graduate Record Examinations (the Aptitude Test and the Advanced Test in Education) before admission to candidacy.

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

## GRADUATE PROGRAMS OF PROFESSIONAL PREPARATION

### Subjects of Study

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

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

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

## GENERAL DEGREES

Students with appropriate qualifications whose interests and needs call for an emphasis on 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. Students who are candidates for any one of these degrees may either major or minor in one of the several areas of professional 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.

## PROFESSIONAL DEGREES IN EDUCATION

Advanced professional degrees in education are designed as preparation for the professions in education. The admissions processes, requirements, and curricula for such degrees, as approved by the Graduate Faculty,



are announced and administered by the faculty of the School of Education, acting as a field of the Graduate School. Degrees are awarded upon recommendation of the School of Education to the Graduate Faculty. Two professional degrees, Master of Arts in Teaching and Doctor of Education, are awarded.

It is the responsibility of the candidate to become familiar with the various regulations which apply to his degree candidacy and to satisfy them in the proper manner. Most of the regulations are contained in the *Code of Legislation of the Graduate Faculty, Cornell University*. These are supplemented in the *Announcement of the School of Education*.

**RESIDENCE.** Each candidate for an advanced degree is expected to complete his residence with reasonable continuity. Under any circumstances, a candidate who fails to register during any period of four or more years may continue only after the General Committee of the Graduate School has stipulated the amount of additional residence to be required. The Committee will be guided in its decision by an estimate, written by the candidate's Special Committee, of the period of study necessary to recover lost ground. A candidate must complete all requirements for a Master's degree within seven years, and for a doctoral degree within ten years of the time of first registration in the Graduate School.

Residence credit earned during candidacy for professional Master's degrees at Cornell or elsewhere may be transferred toward meeting the residence requirements for a doctoral degree in an amount not exceeding two units. The amount transferable is dependent upon an evaluation of the candidate's program and the manner in which the residence was earned.

## The Degree of Master of Arts in Teaching (M.A.T.)

The program for this degree is designed for and limited to those preparing for teaching in elementary and secondary schools.

**ADMISSION TO CANDIDACY.** Applicants must have considerable depth of preparation in their intended teaching field and give evidence of ability necessary for successful progress in graduate study. They also must give evidence of a serious career interest in teaching.

**RESIDENCE.** A minimum of two regular semesters and one summer of full-time study or two and two-fifths residence units is required. Residence units may be earned as follows

1. Regular terms of full-time or part-time registration during the academic year.
2. Summer registration.
3. Extramural registration. (Not more than one unit of residence earned extramurally may be counted.)

Full-time study will be required in all but exceptional cases.

**SPECIAL COMMITTEE.** A candidate will select a Special Committee of two or more members of the Graduate Faculty, one of whom will represent the Field of Education and serve as chairman. The chairman normally will belong to one of the teacher preparation specializations. Other members of the Committee are to be selected with the advice of the chairman to give adequate representation of the candidate's program. For a candidate preparing for secondary school teaching, the teaching field will be represented.

**PROGRAM OF STUDIES.** The program will be determined by the candidate and his Special Committee. It will include those courses, seminars, and other experiences in the professional area and in the teaching field or fields which are deemed most appropriate for developing competence as a teacher. Each candidate will be required to demonstrate teaching skill in a supervised field experience.

**FINAL EXAMINATION.** A candidate must pass a final examination conducted by the Special Committee. The examination may be written or oral or both. It shall be comprehensive in nature and designed to evaluate the candidate's knowledge in the teaching field as well as in the theory and practice of teaching.

## The Degree of Doctor of Education (Ed.D.)

Programs for this degree are designed to prepare the candidate for positions of leadership in the educational profession. Positions for which such preparation is available are administrator, coordinator, curriculum specialist, extension specialist, student services specialist, supervisor, and teacher.

**ADMISSION TO CANDIDACY.** Applicants must have completed a minimum of three years of successful experience appropriate to their proposed field of professional service. They also must show evidence, based on previous training, of scholastic ability and other qualifications necessary for successful progress in graduate study, field experience, and professional work.

**RESIDENCE.** 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.

The maximum number of residence units which may be earned through Extramural registration or in Summer Sessions at Cornell or in similar manner at other centers of graduate study is two.

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

**PROGRAM OF STUDIES.** The program of studies, designed to develop competence in a field of professional service and in the general field of

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

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

**DIRECTED FIELD EXPERIENCE.** In keeping with the primary emphasis in the program for the Ed.D. degree, a minimum of two consecutive academic terms of full-time experience appropriate to the candidate's field of professional service is required. This period of participation, known as Directed Field Experience, will follow completion of a minimum of two units of residence at Cornell beyond the Master's degree or its equivalent.

The opportunity for the Field Experience is to be sought by the candidate with the advice and assistance of the Special Committee. 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 to be needed in acquiring competence in the field of professional service for which the degree program has been designed.

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

**THESIS.** The candidate is required to present a thesis which will give evidence of his ability to apply knowledge to a professional problem. The thesis must satisfy the Special Committee in respect to both professional proficiency and literary quality.

**EXAMINATIONS.** Two examinations are required for the degree in addition to the entrance examination required of all candidates. These are (1) a qualifying examination and (2) a final examination. Although other members of the faculty may be invited to participate in these examinations, the Special Committee alone decides whether the candidate has passed or failed.

**QUALIFYING EXAMINATION.** This examination is both written and oral and is given before or during the third unit of residence. It has the double purpose of determining the ability of the candidate to pursue further studies and of allowing the Special Committee and the candidate to plan a satisfactory program for completion of candidacy.

**FINAL EXAMINATION.** The candidate is required to pass a final examination given by the Special Committee and other members of the faculty who may be invited to attend. The examination must be given

in two parts—one part on the field of professional service and core studies in education (Examination A), which may be taken at the end of the fourth unit of residence; the second part on the thesis (Examination B), is taken after the thesis is approved by the Special Committee. Examination A may be written or oral or both. Examinations A and B may precede or follow the period of Directed Field Experience.

## Master of Arts for Teachers

In addition to the two professional degrees described above, Cornell offers a Master's degree for provisionally certified teachers who wish to take a minimum of thirty-three semester hours of additional course work in their teaching field. Three units of residence are required for this program. For further information regarding this degree, please write to Office of the Dean, 100 Stone Hall.

## PRE-SERVICE PROGRAMS

### PREPARATION OF SECONDARY AND ELEMENTARY SCHOOL TEACHERS

Programs designed to prepare teachers for secondary and elementary school teaching are available to selected students enrolled in the several colleges and schools of the University.

In order to establish an all-University responsibility for the preparation of teachers and to coordinate efforts and programs, the University Committee on the Preparation of Teachers establishes University-wide policies, assists individual units with planning and program operation, and represents the University in relations with the New York State Education Department and with cooperating school districts. The undergraduate colleges control curricula and requirements for undergraduates preparing to teach, and the Graduate School exercises such controls over Master's degree programs leading to teaching. The School of Education is responsible for professional studies and practice, in close cooperation with the subject matter departments, and administers the Master of Arts in Teaching degree.

Programs are planned to meet the requirements of New York State for certification to teach in secondary or elementary schools. Cornell has been designated as one member of the Five-College Project and invited to design programs of teacher preparation independent of current certification requirements of the state. While such programs are being planned, over a two-year period the University will continue to relate its programs to present requirements for licensure. Present and future Cornell programs will be registered with the State Education Department. Present programs are approved by the National Council for the Accreditation of Teacher Education. Because requirements for licensure vary from state to state, it should not be assumed that completion of a

Cornell program will automatically qualify a student for a teaching certificate in another state.

Five years of preparation is currently required for permanent certification to teach in elementary, junior, and senior high schools in New York, and increasingly is required in a number of other states. The degree of Master of Arts in Teaching (M.A.T.) is designed for those with a baccalaureate degree, planning to undertake professional preparation in the fifth year. Teaching fields for this degree include agriculture, English, French, German, home economics, Latin, mathematics, Russian, the sciences, history and social sciences, Spanish, and speech in the secondary schools, and grades 1-6 of the elementary schools. Students enrolled in the various undergraduate colleges at Cornell will find that early consultation with appropriate advisers will facilitate a sequentially planned five-year program. For admission to the fifth year program, application to the Graduate School is necessary.

Four year programs leading to provisional certification may be completed by undergraduates majoring in and preparing to teach in the *secondary school fields* mentioned above. Students meet graduation requirements of the college in which they are registered and follow a recommended curriculum in teacher preparation. Teachers with provisional certification can obtain the permanent certificate by completing additional designated requirements within a specified period of time.

All programs of teacher preparation include concentrated study in depth in one field, a planned distribution of liberal arts studies, and a professional sequence that includes the social-psychological foundations of education, instructional methods, and supervised field experience in public elementary and secondary schools. The specific sequence of courses varies with the teaching field and is planned for each student in consultation with faculty advisers in the School of Education and in the teaching field. Independent study, seminars, and honors work in education are available for those with special competencies or unique backgrounds. A Teacher Associate program makes it possible for some students to participate in a paid internship in the Ithaca public schools.

Career opportunities for men and women as public school teachers are unlimited. The Educational Placement Bureau each year receives thousands of vacancy notices. Candidates take positions in schools in all parts of the country and occasionally abroad.

Cornell University provides an excellent setting for preparation for a teaching career. It welcomes undergraduate and graduate students who wish to combine liberal studies and intensive work in a teaching field with professional study leading to a permanent career in teaching. Students are expected to be full members of the University community, to perform ably in one of the colleges of Cornell, and to enter teaching as persons who are competent in both the subject to be taught and the process of teaching.

Students may obtain detailed information about courses and sequences by writing the Office of the Dean, School of Education, Stone Hall.

## SPECIAL PROGRAMS LEADING TO POSITIONS IN EDUCATIONAL SPECIALIZATIONS

**ADMINISTRATION AND SUPERVISION.** Programs designed to prepare persons for practical roles in educational administration (chief school administrator, instructional administrator, and subject or grade-level supervisor) are offered. These programs do not require admission to degree candidacy and are structured for mature and experienced individuals who may not wish to meet the degree requirements of regular residence and thesis. Programs for certification in administration and supervision have been approved by the New York State Education Department and the National Commission on the Accreditation of Teacher Education. Successful completion of a prescribed program insures certification in New York State if experience requirements are also met.

Ordinarily only experienced and mature individuals are accepted for programs leading to certification in educational administration and supervision. Teaching experience is mandatory. Applicants will be expected to furnish evidence of academic competence and administrative adaptability. Transcripts of academic performance and letters of recommendation will be required and an interview will be encouraged.

Candidates who successfully complete certification programs will be assisted in finding suitable administrative positions by the Educational Placement Bureau. Individuals interested in pursuing an administrative certification program should contact Professor D. J. McCarty, 103 Stone Hall, Cornell University.

**GUIDANCE AND PERSONNEL ADMINISTRATION.** A program of professional preparation, approved by the New York State Education Department and NCATE, is available for men and women who wish to become school counselors. The graduate courses required for both provisional and permanent certification are offered during the academic year and in the summer. Students who are admitted to the Graduate School may meet certification and Master's degree requirements concurrently.

In most states, two years of teaching experience is a prerequisite for certification in guidance. Students who wish to become certificated to serve as counselors in public schools should have met *at least* part of the experience requirement before they embark upon a program of preparation for counseling.

Men and women who complete the program and meet all other certification requirements are qualified to accept positions as junior and senior high school counselors, directors of guidance, teacher-counselors, coordinators of pupil personnel services, and shared counselors in districts having boards of cooperative educational services. Some of our graduates, after working as counselors for several years, have returned to Cornell to pursue a doctoral program in Guidance and Personnel Administration, which is described on page 9.

Further information concerning the program may be obtained from Professor A. Gordon Nelson, 215 Stone Hall, Cornell University.

## GRADUATE ASSISTANTSHIPS, FELLOWSHIPS, SCHOLARSHIPS, AND FINANCIAL AID

A number of graduate assistantships, scholarships, and fellowships are available in the School of Education. An announcement of these is published annually. Requests for announcements, application forms, and additional information concerning any of these opportunities should be addressed to the Dean of the School of Education, Stone Hall, Cornell University. Completed applications must be received by March 1. Notification is given by April 15.

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.

The assistantship stipends vary in amount from \$2266 to \$3296, with appointments ranging from nine to twelve months. In the College of Agriculture and the College of Home Economics tuition is waived for assistantship holders. Tuition is not waived in other assistantships.

Holders of fellowships and scholarships pursue a full-time course of study and are not required to render service to the University. They may engage in internship experiences.

Graduate students are eligible to apply for loans through the Office of Scholarships and Financial Aid, Edmund Ezra Day Hall, Cornell University. Assistance in obtaining part-time employment, as permitted and limited by regulations of the Graduate School, may be obtained through this office. Residents of New York State may also obtain information from this office concerning the Scholar Incentive Payments.

Information concerning fellowships and scholarships open to candidates in *all* fields may be found in the *Announcement of the Graduate School*.

## TUITION AND FEES FOR GRADUATE STUDENTS

**REGISTRATION DEPOSIT.** An amount of \$28 must be paid 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 AND FEES.** Each term tuition of \$735 and a General Fee of \$165 is charged students in the endowed colleges of Cornell. For the

student whose major chairman is on the faculty of a state-supported division of the University (the Veterinary College, the Colleges of Agriculture and Home Economics, and the School of Industrial and Labor Relations), or of the School of Nutrition or (generally) the School of Education, tuition is \$200 and the General Fee \$187.50 per term.

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 pay a fee of \$35.

The General Fee contributes toward the services supplied by the University libraries, Health Services, and the student union in Willard Straight Hall, and pays a portion of the extra cost of laboratory instruction and general administration.

All tuition and fees are payable at the beginning of each term at the Treasurer's Office in Day Hall.

**THESIS FEE.** An amount 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.

**TUITION DIFFERENTIALS.** Limited scholarship aid is available to graduate students studying in major subjects where the higher tuition is required. Students interested in tuition differential scholarships should talk with faculty members or with the Dean of the School of Education, Stone Hall, Cornell University.

**SPECIAL TUITION WAIVERS.** Upon recommendation by the appropriate dean and after action by the Board of Trustees in the case of each appointment in a state-supported school or college, waiver of tuition in the Graduate School may be made to a member of the teaching or scientific staff whose major field of study is in a state-supported school or college.

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 division 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.

Any student who is to receive less than full residence because of his employment should apply for proration of tuition on forms available at the Graduate School Office. Tuition is based on residence eligibility.



## EDUCATIONAL PLACEMENT BUREAU

The Educational Placement 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 and universities.

With the Bureau's assistance, Cornellians are regularly placed as teachers, counselors, student personnel workers, supervisors, school and college administrators, professors, and research workers. Requests are received throughout the year from public schools, private schools, junior colleges, technical institutes, colleges, and universities. At both school and college levels, the Bureau's contacts are nationwide.

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, and certification requirements in each state.

Detailed information pertaining to all accredited universities, colleges, and private schools in the country is available for reference.

All Cornellians qualified and interested in school or college positions should register with this office during the first or second months of the fall term, or well in advance of the completion of training.

Eligibility for registration in the Bureau is dependent on enrollment in or completion of a regular Cornell program. 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 Association for School, College, and University Staffing. 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.

The address of the Bureau is 320 Wait Avenue, Cornell University.

## SUMMER SESSION AND EXTRAMURAL COURSES

The Division of Summer Session and Extramural Courses of Cornell University provides opportunity for students to study part-time in satisfying requirements for degrees. The Summer Session, through its Summer School and other sessions, offers instruction in courses provided by the faculties of the various schools and colleges of the University. All courses are equivalent to those offered in the academic year. The needs of teachers and other school personnel are met in the courses, workshops, and seminars offered in a wide variety of disciplines in addition to professional education.

For further information, obtain the Announcement of the Summer Session.

Registration for part-time study during the fall and spring terms is available through Extramural Courses. Employed persons who can

commute to the campus for courses at the times regularly scheduled each term can be registered for any course for which they are qualified. The maximum registration permitted per term is two courses.

When students are sufficient to warrant the offerings, a few courses are made available in off-campus centers. These centers are located to suit the convenience of the students.

Students who wish to register extramurally should apply for information to the Director of the Division of Summer Session and Extramural Courses, B-20 Ives Hall.

## COURSES OF INSTRUCTION

Courses may be identified as follows: 100-199, introductory courses, primarily for freshmen and sophomores; 200-299, intermediate courses, primarily for underclassmen; 300-399, advanced courses, primarily for juniors and seniors; 400-499, primarily for seniors and graduate students; 500-599, primarily for graduate students; 600-699, seminars.

## DIVISION OF ADMINISTRATION AND SUPERVISION

Mr. D. J. McCarty, Chairman; Mrs. Joan R. Egner, Mr. L. B. Hixon, Miss Helen L. Wardeberg.

### R.E. 561. THEORY AND PRACTICE OF ADMINISTRATION

Fall term. Credit three hours. Mr. McCarty.

The goal of this course is to give the student understanding and practice in the use of behavioral science concepts for analyzing human behavior in formal organizations. Students will be required to apply course concepts to the analysis and discussion of cases. The course provides explicit instruction and practice in defining administrative problems, evaluating various kinds of evidence, exploring possible courses of action, making definite decisions, and setting forth programs of action to implement these decisions.

### R.E. 562. THE SECONDARY SCHOOL PRINCIPALSHIP

Spring term. Credit three hours. Mr. Hixon.

Critical analysis of problems of the secondary school principalship as related to function of the secondary school, its curriculum, appraisal of teaching and learning, pupil characteristics, and patterns of organization of personnel and resources.

### R.E. 563. ELEMENTARY SCHOOL ADMINISTRATION

Spring term. Credit three hours. Given in alternate years. Mrs. Egner.

Organized to enable recognition and cognition of the administrative functions essential to an effective elementary school. Analysis will include the elementary school as a unique institution, innovation in organization and curriculum, administration of instructional and non-instructional personnel, and community relationships.

### R.E. 564 SCHOOL FINANCE AND FACILITIES

Spring term. Credit three hours. Prerequisite, R.E. 561 or equivalent. Mr. McCarty.

The role of the administrator in providing leadership in the provision and maintenance of funds and facilities. Marshaling personnel and material for school operation. Sources of school support. Estimation, interpretation, and management of expenditures. Planning, constructing, and financing a school building. Utilization, operation, and management of the school plant. Records, accounts, reports, and audits.

### R.E. 565. EDUCATIONAL SUPERVISION

Spring term. Credit three hours. Miss Wardeberg.

A basic course in the nature and scope of supervision; fundamental principles and various procedures will be considered. Open to those already in supervisory positions, either in school work or elsewhere, and experienced persons aspiring to become supervisors.

#### Ed. 567. SCHOOL LAW FOR ADMINISTRATORS AND TEACHERS

Fall term. Credit three hours. Mr. Hixon.

A study of school law with particular emphasis on New York State legislation, court decisions, opinions, and regulations which affect the schools of the state.

#### R.E. 569. PERSONNEL ADMINISTRATION IN EDUCATIONAL INSTITUTIONS

Fall term. Credit three hours. Mrs. Egner.

Designed to provide an introduction to modern psychological and sociological perspectives of personnel administration. Three purposes are paramount: (1) to acquaint the student with a variety of ways of conceiving the problems of personnel administration, (2) to acquaint the student with relevant research, and (3) to develop some facility in the analysis of conceptual schemes and research projects.

#### R.E. 668. SEMINAR IN EDUCATIONAL ADMINISTRATION

Spring term. Credit three hours. Prerequisites, R.E. 561 or R.E. 569 or consent of instructor. Mr. McCarty.

Planned for advanced students in administration. Major emphasis to be placed on the analysis of administrative theory and research from business, public, hospital, and industrial, as well as educational administration.

### DIVISION OF AGRICULTURAL EDUCATION

Mr. J. P. Bail, Chairman; Messrs. H. R. Cushman, W. E. Drake, C. W. Hill, F. K. T. Tom.

#### R.E. 331. INTRODUCTION TO TEACHING AGRICULTURE

Spring term. Credit one hour. Required of juniors and others entering the directed teaching program in the senior or following year. Mr. Drake.

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

#### R.E. 332. METHODS, MATERIALS, AND DIRECTED PRACTICE IN TEACHING 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 agriculture on the junior and senior high school levels which includes adjustment in the school and community; evaluation of area resources, materials of instruction, and school facilities; organization and development of local courses of study; launching and directing supervised farming programs; planning for and teaching all-day classes; advising Future Farmers chapters; and other problems relating to development of a balanced program for vocational education in agriculture in a local area.

### R.E. 433. SPECIAL PROBLEMS IN AGRICULTURAL EDUCATION

Fall or spring term. Credit one or two hours. Graduate and undergraduate. Mr. Bail and staff.

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

### R.E. 434. ORGANIZATION AND DIRECTION OF YOUNG FARMER PROGRAMS

Fall term. Credit three hours. Mr. Cushman.

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

### [R.E. 531. SUPERVISION IN AGRICULTURAL EDUCATION

Fall term. Credit two hours. Given in alternate years. Open to students with experience in teaching agriculture, or by permission. Mr. Bail.] Not given in 1966-67.

The function of supervision, program planning, and supervisory techniques as applied to state programs in agricultural education.

### R.E. 532. ADVANCED METHODS AND MATERIALS OF TEACHING AGRICULTURE

Fall term. Credit two or three hours. Mr. Tom.

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

### R.E. 533. PLANNING COURSES OF STUDY AND AGRICULTURAL EXPERIENCE PROGRAMS IN AGRICULTURE

Spring term. Credit three hours. Mr. Hill.

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

### R.E. 534. EDUCATION FOR LEADERSHIP OF YOUTH AND ADULT GROUPS

Fall term. Credit two hours. Mr. 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. 535. PLANNING AND CONDUCTING PROGRAMS OF TEACHER PREPARATION IN AGRICULTURE

Fall term. Credit two hours. Offered in alternate years. Mr. Hill.

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

**R.E. 536. THE ORGANIZATION AND ADMINISTRATION OF AGRICULTURAL EDUCATION**

Spring term. Credit two hours. Given in alternate years. Mr. Cushman.

Designed for teachers, high school principals, teacher trainers, supervisors, and others who are responsible for the administration of agricultural 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. 538. TEACHING GENERAL AGRICULTURE IN THE SECONDARY SCHOOL**

Spring term. Credit two hours. Mr. Tom.

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

**[R.E. 539. EVALUATING PROGRAMS OF AGRICULTURAL EDUCATION**

Spring term. Credit two hours. Given in alternate years. Open to students with experience in teaching agriculture or by permission. Mr. Drake.] Not given in 1966-67.

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

**R.E. 630. SEMINAR IN AGRICULTURAL EDUCATION**

Spring term. Credit one hour. Mr. Tom.

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

## **DIVISION OF CURRICULUM AND INSTRUCTION**

Mr. M. Johnson, Jr., Chairman; Messrs. M. H. Bruce, Jr., H. A. Geiselmann, P. G. Johnson, W. T. Lowe, and W. J. Pauk; Miss Isabel Peard; Messrs. V. N. Rockcastle and G. F. Vars; Miss Helen Wardeberg. Mrs. Eloise Hadlock, Mrs. Anne Holley, Mrs. Milacent Ocvirk, Messrs. Pfaff and Teetor.

**R.E. 407. THE TEACHING OF ELEMENTARY SCHOOL SCIENCE**

Fall term. Credit three hours. Registration by permission. Mr. Rockcastle. (See page 42 for description.)

**R.E. 428. METHODS OF TEACHING SCIENCE IN SECONDARY SCHOOLS**

Fall or spring term. Credit three hours. Prerequisite, R.E. 411, Educational Psychology, or the equivalent, or concurrent registration. For juniors, seniors, and graduate students without teaching experience. Messrs. P. G. Johnson, Bruce, and assistants. (See page 42 for description.)

**Ed. 440A. OBSERVATION AND STUDENT TEACHING**

Fall or spring term. Credit six hours. Hours to be arranged. Mr. Lowe, Mrs. Holley, Mrs. Ocvirk, Mr. Pfaff, and Mr. Teetor.

For students preparing to teach English, languages, mathematics, social studies, or speech in the secondary schools. (Prospective science teachers, see R.E. 429, page 42.) Opportunities to observe the work of experienced teachers and to do directed teaching in a secondary school are provided. Seminars and student teaching conferences arranged with emphasis on discussion of teaching problems. Students should also enroll in the appropriate special methods course which follows.

**Ed. 440E. TEACHING ENGLISH IN SECONDARY SCHOOLS**

Fall and spring terms. Credit four hours. Hours to be arranged. Miss Peard and Mr. Novarr.

Taught jointly by the Department of English and the School of Education. Emphasis on the teaching of reading, writing, and language. Undergraduates accepted for the English-teaching program should register in the term immediately prior to that in which their practice teaching is scheduled; all others should see Miss Peard before registering.

**Ed. 440L. TEACHING LANGUAGES IN SECONDARY SCHOOLS**

Fall or spring term. Credit three hours. Hours to be arranged. Mr. Teetor.

**Ed. 440M. TEACHING MATHEMATICS IN SECONDARY SCHOOLS**

Fall term. Credit three hours. Hours to be arranged. Mrs. Holley.

**Ed. 440S. TEACHING SOCIAL STUDIES IN SECONDARY SCHOOLS**

Fall or spring term. Credit two or three hours. Mr. Lowe.

**R.E. 444. SEMINAR IN THE TEACHING OF SECONDARY MATHEMATICS**

Spring term. Credit three hours. Mr. Geiselman.

Useful materials and practical methods for effective teaching of mathematics in the junior and senior high school. Attention will be given to research in mathematics education, and to recent proposals for curriculum revision. Special interests of the students will serve as a guide for the further selection of topics.

**Ed. 445. TEACHING READING AND STUDY SKILLS IN SECONDARY SCHOOLS**

Spring term. Limited to seniors and graduate students. Credit two or three hours. Mr. Pauk.

For teachers, administrators, guidance counselors, and supervisors. Pertinent research as well as the psychology and philosophy of developmental reading and study skills will be examined. Teaching methods and sample materials for classroom use will be demonstrated and discussed.

**R.E. 447. JUNIOR HIGH SCHOOL EDUCATION**

Fall and spring terms. Credit two or three hours. Limited to seniors and graduate students. Mr. Vars.

Examines educational programs for young adolescents in the light of the

history, status, and philosophy of the junior high school. Includes guidance, articulation, exploration, general education programs such as block-time and core, and such recent developments as programed instruction and team teaching.

**R.E. 471. LOGIC IN TEACHING**

Fall term. Credit three hours. Mr. Ennis. (See page 36 for description.)

**R.E. 540. THE ART OF TEACHING**

Fall or spring term. Credit and hours arranged. Students may register only with consent of appropriate supervisor. Messrs. M. Bruce, Geiselmann, Lowe and Vars; Miss Peard and Miss Wardeberg.

For students enrolled in fifth-year teacher education programs. Students will be assigned to elementary and secondary schools for directed field experiences. Seminars will be scheduled concurrently.

**R.E. 541. INTERNSHIP IN JUNIOR HIGH SCHOOL TEACHING**

Fall or spring term. Credit six hours. Designed especially for interns in the Junior High School Project. R.E. 543 must be taken concurrently. Messrs. Vars, Lowe, Geiselmann, and M. Bruce.

Full time directed teaching experience in a public school throughout the school's fall or spring semester.

**R.E. 542. SECONDARY EDUCATION IN THE UNITED STATES**

Fall term. Credit three hours. Limited to graduate students. Mr. M. Johnson. Prerequisite, courses in educational psychology and social foundations of education, or permission of instructor.

Historical background and theoretical considerations relating to curriculum and instruction in American secondary schools.

**R.E. 543. SEMINAR IN JUNIOR HIGH SCHOOL TEACHING**

Fall or spring terms. Credit two hours. Hours and places to be arranged. Limited to interns in Junior High School Project. Messrs. M. Johnson, Vars, Lowe, Geiselmann, and M. Bruce.

Problems arising in the course of intern teaching will be discussed.

**R.E. 545. THE CURRICULUM OF AMERICAN SCHOOLS**

Fall term. Credit three hours. Limited to graduate students. Mr. Lowe.

A survey of the basic elements involved in making curriculum decisions, and an examination of contemporary curriculum developments in elementary and secondary schools.

**R.E. 546. TEACHING READING AND LANGUAGE SKILLS**

Fall term. Credit three hours. Miss Wardeberg.

Materials and techniques in teaching the language arts in the elementary school; special emphasis on the teaching of reading.

**R.E. 547. SEMINAR IN ELEMENTARY EDUCATION**

Fall and spring terms. Credit as arranged. Miss Wardeberg.

A problems seminar. For students enrolled in the Art of Teaching.

**R.E. 565. EDUCATIONAL SUPERVISION**

Spring term. Credit three hours. Miss Wardeberg. (See page 25 for description.)



### R.E. 645. SEMINAR IN CURRICULUM THEORY AND RESEARCH

Spring term. Credit three hours. Registration by permission of Instructor. Mr. M. Johnson.

## DIVISION OF EDUCATIONAL PSYCHOLOGY AND MEASUREMENT

Mr. M. D. Glock, Chairman; Messrs. H. G. Andrus, H. Levin, G. W. McConkie, J. Millman, A. G. Nelson, R. E. Ripple.

### R.E. 110. GENERAL PSYCHOLOGY

Fall or spring term. Credit three hours. May not be taken for credit by students who have had Psychology 101 or equivalent. Two lectures plus one discussion section each week. Mr. McConkie.

A general survey of the field. Time is devoted to each of the major areas of psychology: physiological bases of behavior, sensation and perception, learning and remembering, language, thinking, individual differences and psychological testing, motivation and emotion, and abnormal psychology.

### R.E. 411. EDUCATIONAL PSYCHOLOGY

Fall or spring term. Credit three hours. Prerequisite, an introductory course in psychology. Fall term limited to students in teaching programs or, in exceptional cases, by special permission of the instructor. Spring term is organized for special block-time teacher preparation program. Special permission of the instructor is required for students not in this program. Mr. Glock. (Equivalent of Psychology 103).

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

### Ed. 411H. EDUCATIONAL PSYCHOLOGY

Fall or spring term. Credit three hours. Open only to selected undergraduate or graduate honors students. Permission must be granted by the professor in charge. Mr. Ripple and staff.

Through a program of independent study, reading, research activities, and seminars, the students will pursue study of human development, the learning process, motivation, retention and forgetting, transfer, higher mental process, personal-social organization, individual differences, the social psychology of the classroom, technological and other innovations, evaluation and measurement, and research methodology as these apply to the task of managing and organizing learning experiences for students so as to bring about desirable behavioral changes. Work may be arranged to satisfy state certification requirements.

### R.E. 417. PSYCHOLOGY OF ADOLESCENCE

Spring term. Credit two hours. Freshmen and sophomores not admitted. Prerequisite, a course in general psychology. Mr. McConkie.

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

### R.E. 451. EDUCATIONAL MEASUREMENT

Spring term. Credit three hours. Permission of the instructor required. Mr. Millman. Not offered every year.

## 32 EDUCATIONAL PSYCHOLOGY AND MEASUREMENT

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. 453. INTRODUCTION TO EDUCATIONAL STATISTICS

Fall and/or spring terms. Permission of instructor required. Credit three hours. Mr. Millman.

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

### R.E. 454. STATISTICAL INSTRUMENTS IN EDUCATION

Spring term. Credit three hours. Prerequisite, R.E. 453 or permission of the instructor. Mr. Millman. Not offered every year.

A study of the multiple regression, factor analysis, analysis of variance and covariance and other statistical procedures useful in educational research.

### R.E. 511. EDUCATIONAL PSYCHOLOGY

Fall term. Credit three hours. Permission of the instructor required. Mr. Glock.

A basic course in educational psychology for graduate students.

### Ed. 555. USE AND INTERPRETATION OF TESTS IN GUIDANCE AND PERSONNEL ADMINISTRATION

Fall term. Credit three hours. Mr. Andrus.

Open to students in guidance or personnel administration and to classroom teachers who expect to work with standardized group tests. Deals with the historical development, use, and interpretation of aptitude tests as a basis for guidance and selection in public schools, colleges, and/or industry. Designed to meet the New York State certification for guidance counselors.

### Ed. 614. SEMINAR IN THE BEHAVIORAL SCIENCE: BASES OF EDUCATIONAL RESEARCH

Fall term. Credit three hours. Mr. Levin.

Current issues in educational research will be treated in terms of related behavioral science theory and findings. For example, topics to be covered are classroom interaction and small group theory, science and mathematics curricula and cognitive development, reading research and language acquisition. Each student will present a research proposal.

### Ed. 618. SEMINAR IN EDUCATIONAL PSYCHOLOGY

Fall and spring terms. Credit three hours. Mr. Ripple and staff.

Emphasis on theoretical considerations of various areas in educational psychology. Primarily for doctoral students. Not designed for project students earning a Master's degree.

### Psych. 103. EDUCATIONAL PSYCHOLOGY

Spring term. Credit three hours. Prerequisite, an introductory course in psychology. Mr. Levin. (Equivalent of R.E. 411).

The major facts and principles of psychology bearing on educational practice and theory. Human learning, abilities, and group processes as they influence classroom learning will be stressed. Recent educational advances such as new curricula and programmed learning will be discussed in the light of contemporary psychological theories.

See courses listed in psychology, child development and family relations, anthropology, sociology, and industrial and labor relations for related offerings.

## DIVISION OF EXTENSION, ADULT, AND HIGHER EDUCATION

Mr. J. Paul Leagans, Chairman; Messrs. R. L. Bruce, A. E. Durfee, C. R. Harrington.

### R.E. 512. THE COOPERATIVE EXTENSION SERVICE

Spring term. Credit three hours. Open to juniors and seniors by consent. Mr. R. Bruce.

An examination of the role and function of cooperative extension as an educational institution.

### R.E. 523. ADMINISTRATION AND SUPERVISION OF COOPERATIVE EXTENSION PROGRAMS

Fall term. Credit three hours. Mr. R. Bruce.

An application of principles of administration and supervision to the problems of organizing and operating the Cooperative Extension Service.

### R.E. 524. PRINCIPLES OF EXTENSION EDUCATION PROGRAMING AND TEACHING

Fall term. Credit three hours. For graduate students interested in the principles and procedures basic to the development and execution of extension, adult, and community development programs. Mr. Leagans.

A study of the problems, principles, and general procedures commonly involved in developing and carrying out successful educational programs to promote economic and social change.

### R.E. 525. COMMUNICATION IN EXTENSION AND COMMUNITY DEVELOPMENT PROGRAMS

Spring term. Credit three hours. For graduate students interested in a comprehensive understanding of theory, principles, procedures, and techniques of communication as applied in extension education-community development programs. Mr. Leagans.

Analysis of basic elements in the communications process with emphasis on the nature and role of the communicator, audience, message, channels, message treatment, and audience response.

### [R.E. 621. SPECIAL STUDIES IN EXTENSION EDUCATION

Fall term. Credit two hours. Lectures, individual time to be arranged. Messrs. Leagans and R. Bruce.] Not given in 1966-67.

The objective is to provide assistance in thesis preparation to graduate students in extension education. The course consists of three parts: (1) exploration of potential fields and specific delineation of thesis areas; (2) setting up a plan of thesis organization including establishment of objectives or hypotheses, preparation of questionnaires or other research instruments, collection, analysis, and interpretation of data in line with objectives; and (3) preparation of the thesis, its writing, editing, revising, and styling.

**R.E. 626. SEMINAR: COMPARATIVE EXTENSION  
EDUCATION SYSTEMS**

Fall term. Credit two hours. Open to graduate students and advanced undergraduates. Mr. Leagans.

A comparative analysis of the objectives, organization, procedures, achievements, and problems of selected extension education and community development agencies and programs in different circumstances of economic, social, and political development and in different agricultural resource environments. Country programs for major consideration are selected in line with the interests of seminar members.

**R.E. 627. SEMINAR: IMPLEMENTING EXTENSION AND  
COMMUNITY DEVELOPMENT PROGRAMS IN  
DEVELOPING COUNTRIES**

Spring term. Credit two hours. Open to advanced students with experience in rural development programs by permission of the instructor. Mr. Leagans.

Analysis of major problems of implementing programs for economic and social change in non-western cultures. Key problems including administrative organization and policy, selection and training of personnel, setting objectives and goals, financing programs, communication, and evaluation will be considered along with others suggested by seminar members.

**R.E. 628. SEMINAR: CURRENT PROBLEMS AND ISSUES IN  
EXTENSION EDUCATION**

Spring term. Credit two hours. Open by permission of instructor to graduate students in extension education or other fields with special relevance to the seminar topic. Mr. R. Bruce.

A major area of concern to extension education will be selected for intensive study by participating students and faculty.

**H.E.Ed. 437. ADULT EDUCATION**

Fall term. Credit two or three hours. For seniors and graduate students. Miss Patterson. (See page 39 for description.)

**I.A.D. 600. SEMINAR: INTERNATIONAL AGRICULTURAL  
DEVELOPMENT**

Fall and spring terms. Without credit. Mr. Turk and staff. (See *Announcement of the College of Agriculture* for description.)

**DIVISION OF GUIDANCE AND  
PERSONNEL ADMINISTRATION**

Mr. A. G. Nelson, Chairman; Messrs. H. G. Andrus, S. W. Davis, and S. R. Levy.

**Ed. 580. STUDENT CULTURE IN THE AMERICAN COLLEGE**

Spring term. Prerequisite, consent of the instructor. Credit three hours. Mr. Levy.

Study of the student culture in the American college with emphasis on current research.

**Ed. 581. STUDENT PERSONNEL ADMINISTRATION**

Fall term. Prerequisite, consent of the instructor. Credit three hours. Mr. Levy.

The functions and organization of student personnel administration in higher education with emphasis on the historical and philosophical development of the area.

**R.E. 582. EDUCATIONAL AND VOCATIONAL GUIDANCE**

Fall term. Credit two hours. For graduate students only. Mr. 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. 583. COUNSELING**

Spring term. Credit two hours. For graduate students only. Prerequisite, Ed. 555 and R.E. 582 or their equivalents. Mr. Nelson.

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

**R.E. 584. GROUP TECHNIQUES IN GUIDANCE**

Spring term. Credit two hours. Prerequisite, permission of the instructor. Mr. Nelson.

Methods and materials for presenting educational and occupational information to students. Theory and practice of group guidance, and counseling in a group setting.

**R.E. 585. OCCUPATIONAL AND EDUCATIONAL INFORMATION**

Fall term. Credit four hours. Prerequisite, permission of the instructor. Mr. 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.

**Ed. 602. FIELD LABORATORY IN STUDENT PERSONNEL ADMINISTRATION**

Either term. Credit and hours to be arranged. Prerequisite, consent of instructor. Mr. Levy.

Directed field project in student personnel administration.

**Ed. 681. SEMINAR IN STUDENT PERSONNEL ADMINISTRATION**

Spring term. Prerequisite, Education 580 and 581. Credit two hours. Mr. Davis.

An analysis of problems in student personnel administration.

The following courses are not ordinarily offered on campus during the academic year, but they *are* offered in alternate Summer Sessions, along with most of the courses listed above.

R.E. 586. *Organization and Administration of Guidance Programs.*  
Credit two hours.

R.E. 587. *Practicum in Measurement and Appraisal for Counselors.*  
Credit two hours.

R.E. 588. *Case Studies in Counseling.* Credit two hours.

## DIVISION OF HISTORY, PHILOSOPHY, AND SOCIOLOGY OF EDUCATION

Mr. R. H. Ennis, Chairman; Mr. D. B. Gowin, Miss Isabel Peard, Mr. F. H. Stutz.

### R.E. 470. SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION

Either term. Credit three hours. Open to juniors by consent, seniors, and graduate students. Registration in morning sections limited to 50 students; afternoon sections, 25 students. Fall term, Mr. Gowin and instructor to be announced. Spring term, Mr. Ennis and Miss Peard.

A study of the persistent problems of education in a democracy.

### R.E. 470H. SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION

Either term. Credit one to four hours. Mr. Gowin.

Independent study for honors students.

### R.E. 471. LOGIC IN TEACHING

Fall term. Credit three hours. Open to graduates and advanced undergraduates. Mr. Ennis.

A consideration of definition, explanation, proof, problem solving, and the structure of subject matter as they bear upon the work of the classroom teacher.

### Ed. 472. PHILOSOPHERS ON EDUCATION

Fall term. Credit three hours. For graduates and advanced undergraduates. Admission by consent only. Miss Peard.

Selected writings by such philosophers as Plato, Descartes, Rousseau, and Dewey will be examined in their own right and for the light they throw on the persistent problems in education.

### Ed. 473. CONTEMPORARY PHILOSOPHY OF EDUCATION

Spring term. Credit three hours. Mr. Gowin.

The ideas of pragmatists, humanists, analysts, and existentialists will be examined in relation to the bearing of the ideas on educational thought and practice.

### Ed. 499H. SEMINAR IN EDUCATION

Fall term. Credit eight hours. Miss Peard and Mr. Ripple.

English majors with averages of 80 or higher in their first three terms at Cornell are eligible. Mastery of a reading list during the summer after the

sophomore year and enrollment in a seminar in the fall of the junior year are required. The course meets the New York State certification requirements for "eight hours in the social, philosophical, and psychological foundations of educational theory and practice" and is an alternative to the regular eight-hour program: Social and Philosophical Foundations of Education, Educational Psychology, and a two-hour elective in education.

#### R.E. 574. HISTORY OF EDUCATION IN THE MODERN PERIOD

Spring term. Credit three hours. For graduate students. Seniors admitted with permission of the instructor. Instructor to be announced.

An examination of educational thought and practice from the seventeenth century to the present in the setting of general developments in Western Europe and the United States. Principal attention will be given to the educational purposes and systems of France, Germany, the United Kingdom, the USSR, and the United States. A special paper will be required.

#### R.E. 578. COMPARATIVE EDUCATION

Spring term. Credit three hours.

A comparative treatment of several national systems of education from a historical perspective.

#### R.E. 671. SEMINAR: ANALYSIS OF EDUCATIONAL CONCEPTS

Spring term. Credit three hours. Admission by consent. Mr. Ennis.

Topic for 1966-67: Assumptions.

#### Ed. 672. SEMINAR IN EDUCATIONAL CLASSICS

Spring term. Credit three hours. Admission by consent. Miss Peard.

Topic for 1966-67: Rhetoric in Education.

#### Ed. 673. SEMINAR IN JOHN DEWEY'S PHILOSOPHY OF EDUCATION

Fall term. Credit three hours. For graduate students. Consent of instructor required. Prerequisite, prior course in philosophy or philosophy of education. Mr. Gowin.

Dewey's conceptions of the nature of experience, knowledge, value, and metaphysics will be analyzed, as well as his method of philosophizing. Students will be expected to read widely in Dewey's writings and in the writings of his critics and disciples. Primary aim is a mature, critical understanding and appraisal of Dewey's philosophy, especially as it centers upon education.

#### Ed. 674. SEMINAR IN HISTORY OF EDUCATION

Spring term. Credit three hours. Admission by consent.

Topic for 1966-67 to be announced.

#### Soc. 342. EDUCATIONAL SOCIOLOGY

Spring term. Credit four hours. Prerequisite, Sociology 101 or consent of the instructor. Mr. Thompson.

An examination of educational institutions in the context of contemporary culture and society, emphasizing the dynamics of school-community relationships. The study of educational institutions as social systems will also be included.

Soc. 619. SEMINAR: THEORY AND RESEARCH

Fall term. Credit four hours. Hours to be arranged. Mr. Thompson.

## DIVISION OF HOME ECONOMICS EDUCATION

Miss Sara Blackwell, Chairman; Miss Mary Ann Braseth; Mrs. Ethelwyn Cornelius; Misses Margaret Elliott and Frances Heltzel; Mrs. Helen Nelson; Misses Irene Patterson and Kathleen Rhodes.

### H.E.Ed. 300. SPECIAL STUDIES (UNDERGRADUATE)

Fall and spring terms. Credit to be arranged. Department faculty.

(a) For independent study by an individual student in advanced work not otherwise provided in the department; or

(b) For study, on an experimental basis, with a group of students in advanced work not otherwise provided in the department; or

(c) For special arrangement of course work necessitated because of previous training.

Students prepare two copies of a description of the study they wish to undertake. One, signed by the instructor directing it and the head of the department, must be filed with preregistration materials. The second copy is left with the instructor. Students obtain form to be used from their counselors.

### H.E.Ed. 310. THE HOME ECONOMIST AS A TEACHER

Fall term. Credit three hours. Open to upperclassmen and graduate students. Miss Rhodes.

Designed for students who plan to be extension agents, dietitians, social workers, or home service representatives, or to undertake other work which will involve teaching in a non-school situation. Consideration will be given to social-psychological factors affecting the teaching-learning process, approach to different age and ability levels, use of appropriate media for different purposes, and various instructional techniques applicable to different groups of learners. Opportunity will be provided for observation and participation in educational programs according to students' individual needs.

### HE.Ed. 330-331-332. THE ART OF TEACHING

To be taken in two successive terms, 330 in the first, and both 331 and 332 in the second. Open to juniors and seniors preparing to teach home economics in the public schools. Coordinator (to be announced), assisted by Misses Braseth, Heltzel, Patterson and Elliot, Mrs. Cornelius, Mrs. Nelson, and cooperating teachers. This sequence of courses involved observation and participation in the home economics program of one or more schools in communities near Ithaca. H.E. Ed. 330 is offered on a regular schedule throughout each semester, but special scheduling is required for H.E. Ed. 331 and 332; two different possibilities are provided.

330. Fall and spring term. Credit two hours.

Consideration is given to 1) procedures for determining the scope and sequence of the content of home economics classes, and 2) the choice of learning experiences appropriate for use in the secondary schools. Students have an opportunity to study the community and the place of home economics in the total educational program. Students observe home economics programs in cooperating schools.

331A. Fall term. Credit two hours.

331B. Spring term. Credit two hours.



Consideration is given to major concerns related to the teaching of home economics at secondary and adult levels.

332A. Fall term. Credit six hours.

332B. Spring term. Credit six hours.

Guided student teaching experience with students assigned to cooperating public schools. Student teachers live in the school communities and work under the guidance of both local home economics teachers and department faculty.

#### H.E.Ed. 403. SPECIAL PROBLEMS FOR GRADUATE STUDENTS

Fall and spring term. Credit and hours to be arranged. Department faculty.

For 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 to be arranged. Registration with permission of the chairman of the graduate committee and the instructor. Misses Blackwell, Heltzel, Patterson, Rhodes, and Mrs. Nelson.

#### H.E.Ed. 437. ADULT EDUCATION

Fall term. Credit two or three hours. Seniors admitted by permission of the instructor. Miss Patterson.

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

#### H.E.Ed. 438. SEMINAR IN ADULT HOME ECONOMICS EDUCATION

Spring term. Credit two hours. Given in alternate years. Miss Patterson.

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

#### H.E.Ed. 439. THE TEACHING OF HOME ECONOMICS

Spring term. Credit three hours. Given in alternate years. Miss Patterson.

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

#### H.E.Ed. 449. CURRICULUM PLANNING IN HOME ECONOMICS

Spring term. Credit two or three hours. Miss Rhodes.

For high school and college teachers, administrators, and extension per-

sonnel. Attention is given to the social-cultural foundations of the home economics curriculum, social-psychological needs of learners, the influence of educational philosophy on curriculum planning, and curriculum planning for different age and ability levels. Opportunity is given for students to relate curriculum principles to individual situations.

#### H.E.Ed. 459. EVALUATION

Fall term. Credit three hours. Mrs. Nelson.

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

#### H.E.Ed. 460. SEMINAR IN EVALUATION

Spring term. Credit two hours. Prerequisites, H.E.Ed. 459 and R.E. 453 or equivalent. Given in alternate years. Miss 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. 461-462. THE TEACHER EDUCATOR IN HOME ECONOMICS

For graduate students preparing for teacher education positions involving supervision of student teachers. Permission of the instructors is required. Previous experience in teaching home economics at the secondary level is required for H.E.Ed. 462.

461. Fall term. Credit three hours. Mrs. Nelson.

Opportunity is provided for students to develop understanding of teacher education practices by observing and participating in H.E.Ed. 330. Participation involves teaching one or two lessons, and individual work with students. Additional experiences include observation of student teachers and of supervisory conferences in student teaching centers.

462. Spring term. Credit four hours. Mrs. Nelson and instructor to be announced.

Seminar is concerned with basic principles of supervision and their application to the preservice education of home economics teachers. Opportunity is provided for observation and participation in H.E.Ed. 331 and 332, including some teaching in the courses and the supervision of a student teacher.

#### H.E.Ed. 463. INTERNSHIP AND FIELD WORK IN TEACHER EDUCATION

Fall term. Credit two hours. Prerequisites, H.E.Ed. 461 and 462. Instructor to be announced, and Mrs. Nelson.

Interns will supervise three student teachers, make a follow-up visit to a first-year teacher, confer with college supervisor and cooperating teachers in the public schools.

#### H.E.Ed. 469. ADMINISTRATION AND SUPERVISION IN HOME ECONOMICS

Spring term. Credit three hours. Given in alternate years. Miss Rhodes.

Common elements of administrative and supervisory functions, the role of

human relations and communication skills, theories of leadership, the characteristics of effective administration and supervision in relation to program planning and evaluation, curriculum construction, in-service education, personnel, and public relations. Opportunity is provided for directed observation related to the student's area of special interest; e.g., administration of college programs, supervision of state and city public school programs, supervision of cooperative extension programs. Estimated cost of transportation to visit programs, \$15.

#### [H.E.Ed. 475. READINGS IN EDUCATION

Spring term. Credit two hours. Miss Patterson. Given in alternate years.] Not given in 1966-67.

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

#### H.E.Ed. 480. SEMINAR IN HOME ECONOMICS EDUCATION

Fall and spring terms. No credit. Department staff.

An informal seminar planned for majors and minors in home economics education and for others who are interested. Plan for seminar is announced at opening meeting each term.

#### [H.E.Ed. 490. TEACHING HOME ECONOMICS IN HIGHER EDUCATION

Fall term. Credit two hours. Miss Patterson. Given in alternate years.] Not given in 1966-67.

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

Application of the principles of teaching to aspects of home economics to be taught, for example, food and nutrition, housing, textiles and clothing, family relations, or management. Deals with (a) the contributions of home economics at the college level, (b) the philosophy involved in cooperatively planned programs, (c) the characteristics of college-age youths, (d) factors affecting student learning, (e) principles influencing the choice of teaching procedures and materials for college teaching, (f) the educative values of group teaching, and (g) evaluation of teaching.

### DIVISION OF NATURE STUDY, SCIENCE EDUCATION, AND CONSERVATION EDUCATION

Mr. P. G. Johnson, Chairman; Messrs. M. H. Bruce, Jr., R. B. Fischer, V. N. Rockcastle.

#### [R.E. 402. NATURAL HISTORY LITERATURE

Fall term. Credit two hours. Open to juniors, seniors, and graduate students interested in nature, science and conservation education. Mr. Fischer.] Not given in 1966-67.

A survey of writings in the nature, science, and conservation education

fields, with special attention to outstanding writers and their works, designed for teaching and for leisure time reading.

#### R.E. 403. NATURAL HISTORY WRITING

Spring term. Credit two hours. Open to juniors, seniors, and graduate students interested in nature, science and conservation education. Mr. Fischer.

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

#### R.E. 407. THE TEACHING OF ELEMENTARY SCHOOL SCIENCE

Fall term. Credit three hours. Open to juniors, seniors, and graduate students by permission. Mr. Rockcastle.

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

#### R.E. 409. OUR PHYSICAL ENVIRONMENT

Spring term. Credit three hours. Open to juniors, seniors, and graduate students primarily interested in public school teaching. Mr. Rockcastle.

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

#### R.E. 424-425. FIELD NATURAL HISTORY

Fall or spring term. Credit three hours. Open to juniors, seniors, and graduate students, and to sophomores with instructor's permission. Limited to twenty students a section. Friday section primarily for those experienced in field biology. Mr. Fischer.

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 either term or both terms.

#### R.E. 428. METHODS OF TEACHING SCIENCE IN SECONDARY SCHOOLS

Fall or spring term. Credit three hours. Prerequisite, Educational Psychology 411 or the equivalent, or concurrent registration. For juniors, seniors, and graduate students without teaching experience. Messrs. Johnson, Bruce, and assistants.

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

#### R.E. 429. PRACTICE IN TEACHING SCIENCE IN SECONDARY SCHOOLS

Fall or spring term. Credit six or twelve hours. Prerequisite, Rural Education 507 or 428 and permission of the instructor. For seniors and graduate students. Hours to be arranged. Mr. Bruce and assistants.

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

#### R.E. 505. THE TEACHING OF CONSERVATION

Fall term. Credit two hours. Mr. 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. 507. THE TEACHING OF SCIENCE IN SECONDARY SCHOOLS

Fall term. Credit three hours. For graduate students with teaching experience and others by permission only. Mr. Johnson and assistants.

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

#### R.E. 509. THE DEVELOPMENT OF NATURE AND SCIENCE EDUCATION IN THE UNITED STATES

Spring term. Credit two hours. For graduate students. Messrs. M. Bruce, Fischer, Johnson, and Rockcastle.

Studies of the historical development of science teaching, the major personalities and their ideas, and current influences on science course content and methods of teaching.

#### R.E. 606. RESEARCH IN NATURE STUDY, SCIENCE, AND CONSERVATION EDUCATION

Fall and/or spring term. Credit one hour. Required of graduate students who major or minor in science education. Messrs. Johnson, Rockcastle, Fischer, and Bruce.

A seminar dealing with special problems.

### GENERAL

#### Ed. 7. COLLEGE READING AND STUDY SKILLS PROGRAM

Twice each term. Non-credit. Program 1 starts at the beginning of fall term; Program 2 directly after Thanksgiving recess; Program 3 at beginning of spring term; and Program 4 directly after spring recess.

The initial fall program is reserved for freshmen. The other three programs are open to all registered students.

Registration takes place in Room 102, ILR Extension Building, during the in-session week preceding the beginning of each program. Mr. Pauk.

Principles and techniques for reading and studying more effectively are explained, demonstrated, and practiced in class. The reading laboratory provides an opportunity for increasing one's rate of reading.

#### R.E. 499. INFORMAL STUDY IN EDUCATION

Maximum credit, three hours each term. Members of the staff.

This privilege is granted to a qualified junior, senior, or graduate student when approved by an adviser from the Education staff who is personally responsible for the study. Two purposes are sanctioned: (1) to engage in a study of a problem or topic not covered in a regular course; or (2) to under-

take tutorial or honors study of an independent nature in the area of the student's research interests. The program is not designed for study supplementary to a regular course for the purpose of increasing the content and credit allocation of the course.

#### Ed. 499H. SEMINAR IN EDUCATION

Fall term. Credit and hours to be arranged. Miss Peard, Coordinator.

Open by permission only to students enrolled in regular programs for the preparation of teachers of English. Reading, lectures, and discussions of philosophical and psychological import for education.

#### Ed. 499S. INFORMAL STUDY IN EDUCATION

Maximum credit, three hours each term. Members of the staff. For students with majors in the endowed colleges.

This privilege is granted to a qualified junior, senior, or graduate student when approved by an adviser from the Education staff who is personally responsible for the study. Two purposes are sanctioned: (1) to engage in a study of a problem or topic not covered in a regular course; or (2) to undertake tutorial or honors study of an independent nature in the area of the student's research interests. The program is not designed for study supplementary to a regular course for the purpose of increasing the content and credit allocation of the course.

#### R.E. 500. SPECIAL STUDIES

Credit as arranged. Members of the staff. Limited to graduate students working on theses or other research projects. Each registration must be approved by a staff member who will assume responsibility for the work.

#### Ed. 500S. SPECIAL STUDIES

Credit as arranged. Members of the staff. Limited to graduate students with majors in the endowed divisions working on theses or other research projects. Each registration must be approved by a staff member who will assume responsibility for the work.

#### Ed. 594. COLLEGE TEACHING

Spring term. Without credit. Members of the University staff.

Designed for those who plan to teach in colleges and universities. Concepts and methods of teaching, organization of subject matter, motivation, learning, testing, grading, and similar problems are treated.

#### R.E. 599. INTRODUCTION TO EDUCATIONAL INQUIRY

Fall term. Credit four hours. Mr. Millman and staff.

An introduction to the processes that underlie the conduct of significant research in education. The central objective of the course is to prepare the student to produce better educational research and to be a more intelligent consumer of research already reported. The course is designed for the graduate student beginning work on a general degree or on the Ed.D. It is not intended for professional Master's degree candidates.

#### R.E. 600. 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.

#### H.E.Ed. 300. SPECIAL PROBLEMS FOR UNDERGRADUATE STUDENTS

Fall and spring terms. Credit and hours to be arranged. Department staff.

For students recommended by counselors and approved by the head of the department and the instructor in charge for independent advanced work not otherwise provided in the department or for special arrangement of course work necessitated because of previous training. Students must prepare two copies of a description of the problem they wish to undertake. One, signed by the instructor directing it and by the head of the department, must be filed with preregistration materials. The second copy is left with the instructor. The form to be used may be obtained in Room 135.

#### 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. Miss Blackwell, Miss Heltzel, Mrs. Nelson, Misses Patterson and Rhodes.

## INTERDEPARTMENTAL COURSES

#### ILR 323. TECHNIQUES AND THEORIES OF TRAINING IN ORGANIZATIONS

Credit three hours. Spring term.

Deals with the methods used, formally and informally, by organizations for training personnel at all levels. These methods will be compared with relevant psychological formulations of the problem of learning. The place of practice, understanding, and motivation in the acquisition of motor and other skills; the use of case and incident method; learning techniques in a group setting (discussion and role playing); learning during performance appraisals; learning as a result of identification. Various teaching methods will be practiced.

#### ILR 423. DESIGN AND ADMINISTRATION OF TRAINING PROGRAMS

Credit three hours. Fall term.

Study of the role and function of organizational training. Consideration will be given to the planning and philosophy of programs used by organizations to develop the skill, understanding, and attitudes of the work force.

#### [ILR 524. PUBLIC POLICY AND DEVELOPMENT OF HUMAN RESOURCES

Fall term.]

Analysis of the need for development of human resources, trends in work force requirements and implications for public policy, the role of government and of educational institutions in providing development programs, and the

effectiveness of such programs. Attention to the rationale, organization, and administration of specific programs such as apprenticeship, vocational and technical schools, technical institutes, university programs for development of technical, scientific, and managerial skills, and the foreign technical assistance program. Implications and problems of public support for the development of human resources.

#### ILR 527. MANAGEMENT AND LEADERSHIP DEVELOPMENT

Fall term.

Study of the factors affecting the growth and development of managers and leaders in industrial and other organizations. Consideration is given to the organizational environment, formal and informal development programs, leadership theory, and individual attitudes and beliefs. Special emphasis is given to analysis of specific case studies of actual practice.

#### ILR 627. CURRENT ISSUES AND RESEARCH IN HUMAN RESOURCES DEVELOPMENT

Fall term.

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

#### Interdept. 404. COMPUTER METHODS IN BEHAVIORAL SCIENCES

Spring term. Credit four hours. Prerequisite, an intermediate statistics course (may be taken concurrently). Mr. Rudan.

Importance of digital computers in behavioral research. Issues that arise in design of research instruments. The use of unit record equipment in data analysis and reduction. Programing with the FORTRAN language. Outline of programs available for analysis and reduction of data. Information on the theory and use of such programs.

#### Soc. 441. STRUCTURE AND FUNCTIONING OF AMERICAN SOCIETY — I

Fall term. Credit four hours. Prerequisite, Sociology and Anthropology 101 or consent of instructor. Mr. Williams.

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

#### Soc. 442. STRUCTURE AND FUNCTIONING OF AMERICAN SOCIETY — II

Spring term. Credit four hours. Prerequisite, Sociology and Anthropology 401 or consent of instructor. Mr. Williams.

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



## THE NATURE OF MAN

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

### THE NATURE OF MAN: STRUCTURE AND DEVELOPMENT (Zoology 201)

Fall term. Credit three hours. Not open to freshmen. Prerequisite, a laboratory science, preferably zoology or biology. Mr. Parks and assistants.

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

### THE NATURE OF MAN: THE DEVELOPMENT OF HUMAN BEHAVIOR (Child Development and Family Relationships 115)

Fall term. Credit three hours. Mr. Bronfenbrenner.

The aim is to contribute to the beginning student's knowledge and understanding of human beings through a study of their development from infancy to adulthood.

Attention is focused on the role of biological factors, interpersonal relationships, social structure, and cultural values in changing behavior and shaping the individual. Special emphasis is given to the practical and social implications of existing knowledge.

### THE NATURE OF MAN: CULTURE AND PERSONALITY (Anthropology 312)

Spring term. Credit four hours. Prerequisite, one course at the 100 or 200 level in anthropology, sociology, psychology, or zoology. Messrs. Lambert and Opler.

The study of the individual in his society, emphasizing the relationship between social structure, cultural context, and human behavior. Attention is given largely to the study of personality, "normal" and "abnormal", in non-Western societies.

# FACULTY

(As of December 1, 1965)

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