



Cornell University

Announcements

Graduate School
Humanities

1971-72

CORNELL UNIVERSITY ANNOUNCEMENTS

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The business office of the Graduate School and the Office of the Dean are in Sage Graduate Center. Office hours are 8:30 a.m. to 4:15 p.m., Monday through Friday. The office is closed on Saturday.

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Professors-at-Large are distinguished nonresident members of the University faculty. During short visits to the campus, of up to a month's duration, made at irregular intervals, they hold seminars, give public lectures, and consult informally with students and faculty.

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Cornell University

Graduate Education at Cornell

Graduate education at Cornell is based on the principle that no objective of a university lies deeper in its tradition or springs higher in its aspiration than does the nurture of scholarship. The advancement of learning, the methods of learning, and the criticism of learning occupy the highest reaches of university life and work. Graduate education brings into fruitful contact the most distinguished scholars and the most advanced students, that learning may be shared and that wisdom may be at least glimpsed.

The Graduate School provides an environment within which scholarly capability is encouraged to emerge, thrive, and transmit itself. The School arranges a set of conditions congenial to the student who is prepared to profit from the availability of advanced courses of study; the opportunity for sustained reflection; the companionship of active, full-time fellow students; the most highly developed libraries, laboratories, and other facilities for research; the prospect of independent discovery or recovery, of evaluation or reevaluation; the daily presence of distinguished teachers; and the hope of attaining a firmly based structure of knowledge and a free and independent habit of judgment.

Freedom and independence are key qualities of scholarship, and graduate studies at Cornell are ordered so as to preserve them for both teacher and student. The Cornell principle is that scholars are begotten by other scholars, that judgments are formed by associating with the best judges, that learning lives in the unbroken succession of the learners and the learned, that genuine scholarship is always humane and rests ultimately on personal teaching and personal learning, that success in graduate studies must consist of satisfying the professor rather than a mute schedule of requirements. Graduate School standards are high, but they are maintained there not by the pronouncements of an office but rather by the men after whom such standards are themselves fashioned.

The Cornell graduate student selects not only the study he wishes to pursue, but also the scholar under whose tutelage he wishes to pursue it.

6 Admission

The candidate himself, no one else, makes the choice. Some candidates when they apply for admission have in mind the man or men with whom they wish to study. Those who do not are granted, under a temporary adviser, a semester in which to form an acquaintance and to come to a decision. The supervising professor is called the student's chairman. The chairman and his associate or associates, also chosen by the student, form the student's Special Committee. All such matters as the outlines of study, the observation of progress, the setting of general examinations, the conduct of the thesis, and other exercises leading to a graduate degree are determined within this small circle—the student and the professors he has selected to direct him. So successful is this arrangement and so strongly does Cornell believe in it, that the Special Committee enjoys extraordinary freedom and independence in conducting the student to his degree. The Graduate School sets no course requirement, no credit-hours requirement, no grade requirement. Within the broad agreements of the Graduate Faculty concerning residence, oral examinations, and thesis, the student will be recommended for his degree whenever his Special Committee judges him ready to receive it. When the Committee is satisfied, the requirements are.

The Cornell Graduate School has an enrollment of 3,500 students, and the Graduate Faculty consists of about 1,100 members. In contrast to many other graduate schools, approximately 98 percent of the students are full-time degree candidates, with the majority in programs leading to the Ph.D. degree.

The responsibility for administration of policies and procedures, including the general requirements, the establishment of Fields and subjects for study, admissions, and maintenance of records is placed in the hands of the dean and his staff under the guidance of the General Committee of the Graduate School. These matters are described in detail in *The Code of Legislation*, copies of which may be obtained by enrolled students from the Graduate School Office and which are also available for consultation in other academic and administrative offices of the University.

The University expects that all graduate students at Cornell University shall, at all times, act with a mature and morally responsible attitude, recognizing the basic rules of society and the common rights of others.

Admission

It is the policy of Cornell University actively to support the American ideal of equality of opportunity for all, and no student shall be denied admission or be otherwise discriminated against because of race, color, creed, religion, or national origin.

Since instruction in the Graduate School is primarily individual, those interested in becoming students are encouraged to communicate with individual members of the faculty with whom they may want to study. Personal

interviews in advance of formal application for admission are especially encouraged. For the benefit of those who are not acquainted with appropriate members in the Field or Fields of their interest, each Field has selected a representative, as director of graduate studies, to whom inquiries may be addressed.

An applicant for admission to the Graduate School must (1) hold a baccalaureate degree granted by a faculty or university of recognized standing or have completed studies equivalent to those required for a baccalaureate degree at Cornell, (2) have adequate preparation for graduate study in his chosen field of instruction, (3) have fluent command of the English language, and (4) present evidence of promise in advanced study and research. Students from United States colleges and universities should be in the top third of their graduating class.

Applications for admission should be requested from the Graduate School, Sage Graduate Center, Cornell University, Ithaca, New York 14850. Two letters of recommendation should be sent from the applicant's major instructors. Official transcripts from all the institutions of higher learning attended and, where required, the Graduate Record Examinations or the Miller Analogies Test scores complete the application.

All applications from residents or citizens of the United States or Canada must be accompanied by a \$15 nonrefundable fee. Applicants from other countries who are accepted for admission must pay this fee before registration.

Fellowship and admission applicants are urged to take the Graduate Record Examinations (GRE) Aptitude (Verbal and Quantitative) Tests of the Educational Testing Service no later than December, and to have the scores sent to the Cornell Graduate School as part of their application materials. Information about the times and places of test administrations may be obtained directly from the Educational Testing Service, Princeton, New Jersey 08540. The Field listings, pp. 50 ff., should be consulted for Fields requiring the scores of both the Aptitude Test and the pertinent Advanced Test.

Foreign applicants whose native language is not English and who have received their secondary or advanced education in the English language should submit to the Graduate School a statement to this effect signed by a responsible officer of a United States Embassy or Consulate or by an appropriate official of the educational institution involved. If English has not been the medium of instruction, applicants must take the Test of English as a Foreign Language by arrangement with Educational Testing Service, Princeton, New Jersey 08540. This testing program is available throughout the world. The test is given four times a year; information on times and places may be obtained directly from the address given above. The test score must be reported directly by the testing organization to the Graduate School; since this test is diagnostic, no final action on applications will be taken until the scores have been received. Admission to those applicants whose scores indicate unsatisfactory command of English may be denied, or it may be made contingent upon evidence of improvement.

8 Degree Requirements

Many Fields will not accept new students for the spring term; applicants should check with the Field Representative about the Field's policy on spring admissions.

Categories of Admission

DEGREE PROGRAMS. It is expected that most applicants for admission intend to pursue a program for an advanced degree. Applicants may specify candidacy for the Master of Arts or Master of Science or one of the professional Master's degrees listed on pp. 24–28. However, since Cornell has a strong commitment to doctoral work, most students are encouraged to enroll in a doctoral program. In some Fields, students registered in a doctoral program may be required to seek a Master's degree as an initial step in the program.

Only under unusual circumstances will anyone who already holds an advanced degree be permitted to apply for the same degree.

PROVISIONAL CANDIDACY. Under circumstances in which it is difficult to evaluate the academic background of qualified applicants, they may be admitted to *provisional* candidacy. Ordinarily only one semester of study in provisional candidacy is permitted, and the student who fails to qualify for candidacy at the end of that time may be requested to withdraw from the University.

NONCANDIDACY. When staff and facilities are available, the Graduate School will admit some applicants who do not intend to work toward an advanced degree at Cornell but who have special objectives for formal study or scholarly work at the graduate level, provided they satisfy all the entrance requirements expected of degree candidates. Registration in noncandidacy is restricted to two semesters.

CHANGE OF STATUS. A student who wishes to change his status from non-degree candidacy to regular candidacy or from one degree or Field to another, or who, after receiving the Master's degree, wishes to undertake candidacy for the doctorate, must submit to the Dean of the Graduate School a written request giving reasons for the proposed change. Provisional candidacy is automatically reviewed at the end of each semester; therefore, no letter is necessary.

Degree Requirements

THE SPECIAL COMMITTEE. The general degree requirements of the Graduate School are kept at a minimum in order to give the student maximum flexibility in choosing a desirable program of studies. Since progress in graduate study depends so much on the individual student's situation, there are no course or grade requirements imposed by the Graduate School. The

student's program is developed with the aid and direction of a Special Committee chosen by the student and is designed to fit his specific needs and desires. Satisfactory progress toward the degree is judged solely by the Special Committee rather than by any arbitrary standards imposed by the Graduate School.

The Special Committee under which a Master of Arts or a Master of Science candidate carries on his work is composed of a chairman who represents the major subject, and one representative of an appropriate minor subject. The Special Committee of a doctoral student is composed of a chairman, representing the major subject, and two other members representing other areas of interest. The chairman of the Special Committee directs the student's thesis research. Some Fields require two minor subjects for doctoral programs while others require only one, but all Ph.D. Special Committees have three members.

The Field and the major subject, as well as the chairman of the Special Committee, are selected by the incoming student. It is his privilege to ask any member of the Graduate School Faculty in the Field of his major subject to serve as his chairman. The chairman in turn advises the student about minor subjects and faculty members who might represent them on his Special Committee. The choice of major and minor subjects and the formation of the Special Committee must be recorded in the Graduate School Office within two weeks of the beginning of residency. Since the student may be uncertain of his aspirations at that time, he is encouraged to change the membership of his Special Committee as his aims become more definite.

In some of the larger graduate Fields the difficulty in making a wise selection of a Committee is so great that the Field Representative or other faculty member may serve temporarily as the chairman while the student seeks a permanent chairman and Committee.

The members of the Special Committee direct the student's program and decide whether he is making satisfactory progress toward the degree. They conduct and report on oral examinations, and they approve the thesis. The Committee and the student constitute an independent working unit. All members of the Graduate School Faculty, however, are free to participate in the scheduled examinations and review the theses of candidates for degrees.

The organization of the Graduate School at Cornell is based on a concept of fields of study independent of colleges and departments. It is thus possible for a graduate student to take courses in any division of the University and to choose major and minor subjects without regard to organizational lines.

RESIDENCE. The Graduate faculty regards study in residence as essential. Although a person working off campus may attain proficiency in a technique or even in a field of knowledge, he may fail in other ways to attain the breadth of knowledge necessary for scholarly work. In addition to contact with the libraries and physical facilities of the University, he needs the daily acquaintance, company, aid, and stimulus of others engaged in similar pursuits. He should form the habit of attending lectures, seminars, and meetings of groups in whose activities he takes interest.

10 Degree Requirements

Full-time study for one semester with satisfactory accomplishment constitutes one residence unit. The Graduate School Faculty requires that each candidate for a Master's degree earn two units of residence, and for the Ph.D. degree, six units of residence. However, a longer time is generally required to obtain the degree.

A student must complete all the requirements for the Master's degree in four years and for a doctoral degree in seven years from date of first registration in the Graduate School.

A student in a doctoral program may earn no more than two units, and a student in a Master's program no more than one, for work done in Summer Research, Summer Session, and the Division of Extramural Courses. At least four of the six units required for the Ph.D. degree must be earned as a full-time student, earning three-quarters of a residence unit or more each term, and two of the last four units must be earned in successive terms of full-time study on the Cornell campus.

Transfer of Residence. Candidates for the Master's degree may not count study in other graduate schools as part of their residence. Candidates for the doctorate may be permitted to count study for the Master's degree as equivalent to two residence units if it is relevant to their doctoral program; those who have received training of an exceptional quality and amount may petition for more. No commitment regarding this may be made until after the student has entered into residence and his Special Committee has had opportunity to judge his accomplishments. The residence transferred must not exceed that which would have been earned under similar circumstances at Cornell. Credits for study as an undergraduate or as a special student, even in courses designed primarily or wholly for graduate students, will not be allowed.

Summer Session. To receive residence credit for the Summer Session, the candidate must register in both the Summer Session and the Graduate School and must file a statement of courses satisfactory to his Special Committee. A student may, with his Special Committee's prior approval, earn one-half of a residence unit by completing eight hours or more of credit in the eight-week session, or two-fifths of a unit for six hours or more in the six-week session, but no more than two units in a twelve-month period.

Requirements for Master's degrees may, upon advanced approval of the General Committee, be completed solely during the summer period if instruction in the chosen major and minor subjects is offered. Residence may be transferred for study during one Summer Session preceding matriculation in the Graduate School if this study is an integral part of the graduate program subsequently undertaken, and if the transfer is recommended by the student's Special Committee and approved by the dean of the Graduate School.

Summer Research. To encourage students to continue their studies during the summer period, no tuition or fees are charged for Summer Research if the student has been registered during the previous academic year. Substantial funds are also available for Summer Research assistantship support.

The student has access to the regular services of the University Clinic and Infirmary during the summer with charge if he has been registered as a full-time student during the previous academic term and is registered for Summer Research on a non credit basis. Under certain conditions, students may also accumulate residence credit in Summer Research.

Part-Time Studies. Essentially, all graduate students at Cornell are full-time students. If employment is necessary, students may hold positions requiring up to ten hours of work per week without reduction of residence credit. Teaching fellows and research assistants whose duties require up to twenty hours a week can obtain full residence credit.

Part-time employees are eligible for residence units as follows.

Employment	Residence Units Allowable per Semester		
<i>Total clock hours per week</i>	<i>Contributory in the major field of study and on campus</i>	<i>Noncontributory but on campus</i>	<i>Off campus</i>
0-10 hours	1 unit	1 unit	1 unit
11-20 hours	1 unit	$\frac{3}{4}$ unit	$\frac{3}{4}$ unit
21-30 hours	$\frac{3}{4}$ unit	$\frac{1}{2}$ unit	(See below)

Those employed for more than twenty clock hours per week off campus, or more than thirty clock hours per week under any circumstances, may earn a maximum of two-fifths of a residence unit per semester through registration in the Division of Extramural Courses, but this will be permitted only on the basis of petition approved prior to the time that the work is undertaken.

Students enrolled in the Division of Extramural Courses are not legally graduate students.

To accumulate residence units for course work completed through the Division of Extramural Courses, fifteen credit hours are the equivalent of one residence unit, and six credit hours the equivalent of two-fifths of a unit—the smallest fraction that will be recorded by the Graduate School toward fulfillment of residence requirements. Detailed information concerning extramural courses and registration procedures may be obtained from the Division of Extramural Courses, B-20 Ives Hall.

EXAMINATIONS. The Special Committee conducts the examinations required for the degree. At the discretion of the Special Committee these examinations may be entirely oral or both oral and written.

For the Master's degree a final examination is required, which under certain conditions may be combined with the admission to (Ph.D.) candidacy examination.

For the doctoral degree: (1) A comprehensive admission to candidacy examination for formal admission to doctoral candidacy is required. This examination may not be taken until two units of residence credit have been

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accumulated; it must be attempted before the beginning of the student's seventh unit of residence. Two units of residence must be credited after this examination; (2) A final examination, given after completion of the doctoral dissertation and covering subject matter related to the dissertation topic, is also required.

In some Fields a qualifying examination is given at an early date to determine the student's fitness for advanced study and to help the Special Committee plan his program.

In Fields that so desire, the Special Committee may, after the admission to candidacy examination has been taken, nominate the student for a Master's degree without the requirement of a thesis whether or not admission to candidacy for the Ph.D. has been approved. The degree would be awarded after the completion of four units of residence.

FOREIGN LANGUAGE REQUIREMENTS. Each Field has its own foreign language requirements which it considers most useful to the particular area of study. Any Special Committee may, at its discretion, require knowledge of foreign languages beyond the announced requirements.

Candidates required by the Field or their Special Committee to demonstrate reading ability in a foreign language should find out from their Special Committee chairman how the requirement is to be satisfied. The method required is up to the Field or the Special Committee but typically could be a Field-administered examination, a passing grade in a specified language course, a passing score on either the Educational Testing Service Graduate School Foreign Language Tests or the College Entrance Examination Board language tests, or in case of the more unusual languages, an examination given by a faculty member of the Division of Modern Languages.

A student may petition the dean to transfer a language examination taken elsewhere to his record at Cornell.

Courses designed to aid graduate students in learning how to read French, German, Russian, and Spanish are given by the Division of Modern Languages in cooperation with the Graduate School Faculty.

THESIS. Candidates for the degree of Master of Arts or Master of Science are required to submit a thesis in fulfillment of the requirements for the degree (except as stated on p. 12). Some Fields also require a thesis for professional Master's degrees. Candidates for the doctoral degree must complete a thesis which constitutes an imaginative contribution to knowledge. The faculty requires publication of Ph.D. theses by abstract or microfilm.

Financial Support

Extensive financial resources are available to Cornell graduate students to help them defray the cost of their education. Currently, approximately 3,100 of the 3,500 graduate students receive financial aid in the form of fellowships, teaching assistantships, and research assistantships. But the amount of support available from outside the University is contracting sharply, so that the number of students with fellowships or assistantships is expected to decrease.

In most cases the stipends awarded to graduate students are not high enough to cover living expenses completely. A great deal depends on the level of subsistence to which the individual has become accustomed and the sacrifices that he is willing to make for his education. Experience has shown that married students with dependent children have particular financial difficulties. The minimum subsistence income which such students need is about \$4,000 plus tuition and the General Fee per academic year. Since stipends are frequently lower than this figure, it may be necessary for the student to find other sources of supplementary income, such as loans, in order to complete his studies.

Since the demands of graduate study are so great, students are discouraged from trying to support themselves by unrelated employment.

No special forms are available for financial aid. The applicant should check the type or types of appointment for which he wishes to be considered on the application for admission form.

TEACHING FELLOWSHIPS. The duties of a teaching fellow normally involve classroom and laboratory instruction of undergraduates and, as such, play a major role in the educational process and the academic atmosphere of the University. Since a large majority of Cornell's graduate students eventually seeks a career in teaching, the experience gained from these appointments is an invaluable part of the student's development. In most Fields students are encouraged to spend some time in teaching, and in some Fields the faculty believe the experience so important that they require it of all students in doctoral programs. An appointment as a teaching fellow is usually in the student's major Field or in one that is closely related. The duties require from ten to twenty total clock hours of the student's time a week, depending on the Field. A teaching fellow whose duties are in his major Field of interest and do not exceed twenty hours is eligible for full residence credit. Salary for a fifteen-hour week will be \$2,700 with a slightly higher amount for longer hours, supplemented by a fellowship which covers tuition and the General Fee. Because of possible problems in communication with undergraduates, applicants from non-English-speaking countries are not normally appointed as teaching fellows in their first year at Cornell. Teaching appointments are made by department chairmen. Applications for these positions should be made to the Field Representative of the Field offering the major subject of interest to the student.

RESEARCH ASSISTANTSHIPS. The duties of a research assistant involve work on a research project. The work performed is frequently applicable to

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the student's thesis research and is under the direction of the chairman of his Special Committee. The student is required to spend twenty hours a week, but if the research is in the Field of his major interest he can earn full-time residence credit. In many Fields of study such appointments are normally made after completion of at least one year of graduate study.

FELLOWSHIPS. A fellowship ordinarily is awarded in open competition to a full-time student who is a candidate for a higher degree (usually a Ph.D.), primarily on the basis of scholastic ability and promise of achievement as a graduate student. The award is made as a tax-exempt gift, and it usually not only covers tuition and the General Fee but also may provide a substantial stipend for living expenses during tenure. Because of the competition for a decreasing amount of funds, the inclusion of financial need criteria is currently under consideration. A student who holds a fellowship is free to select his own research project, subject to the approval of his Special Committee, and his primary responsibility is to pursue his studies for his degree. The award of the fellowship does not obligate the holder to render services to the University, except that in certain fields some teaching is required of all graduate students for the sake of experience and training, nor is the holder of a fellowship committed in any way with respect to future employment. The holder of a fellowship may accept no other appointment or employment without permission of the Cornell Graduate Fellowship Board; however, teaching responsibilities will usually be approved as a routine matter if they contribute to the student's graduate program and do not exceed ten clock hours of work per week.

More than 450 fellowships are under the direct supervision of the Fellowship Board or of academic units of Cornell. The range of stipend (in addition to tuition and the General Fee and, in some cases, dependency allowances) for different categories of fellowships available to first-year students is indicated below.

Cornell Andrew D. White Fellowships—\$2,500–\$3,000

Cornell Graduate Fellowships—\$2,000

Cornell Fellowships from Special Endowments—\$1,000–\$2,000

Industrial Fellowships—\$1,500–\$2,500

Many other fellowships are offered to students majoring in certain Fields of study, and some of these are noted in the descriptions of the Fields.

Many private and federally supported fellowships are also administered by the Graduate School. National Science Foundation Traineeships, as well as National Defense Education Act (NDEA) Title IV Fellowships, are available to United States citizens. The application deadline for these is February 1 for the following academic year; candidates for these fellowships are nominated by the Field, having been chosen from among those students applying. NDEA Title IV Fellowships offer three years of support to doctoral students who intend to enter a teaching career. (Since completion of a Ph.D. program at Cornell normally requires four years, and because the program is aimed at prospective teachers, NDEA Fellows are normally expected to gain teaching experience and have support during one of the years as teaching fellows.)

The purpose of the NDEA Title VI (NDFL) Fellowship program is to encourage individuals taking advanced training in languages and in associated area studies designated as being of critical importance to the United States. (For area studies, see pp. 31-40.) Applicants who are interested in NDFL Fellowship support must so indicate when requesting their application materials for admission. National Institutes of Health Traineeships are available and are offered by Fields which have been awarded such grants.

A space is provided on the admission application form in which the student may indicate the type of support for which he wishes to be considered. There is no special fellowship application form.

Prospective graduate students should also consider applying for fellowships awarded on a national basis by the National Science Foundation, the Atomic Energy Commission, the Woodrow Wilson National Fellowship Foundation, and the Ford Foundation. These programs have deadlines for applications, some as early as December 1. Applicants should check on the date pertinent to the fellowship. In some cases it is possible for winners of NSF and AEC awards to hold half-time appointments as teaching fellows for an additional stipend.

New York State provides several forms of financial support. The Herbert H. Lehman Fellowship program is open to applicants from all states whose interests are in social sciences or public or international affairs. These Fellowships are awarded on a competitive basis and may be used only in New York State institutions; they provide each recipient with \$4,000 for the first year of graduate study and \$5,000 for each subsequent year. New York State residents are eligible for Regents College Teaching Fellowships or Regents Fellowships for Doctoral Study in Arts, Science, and Engineering. Applications for these must be made by December 1 on forms obtained from the Regents Examination and Scholarship Center, New York State Education Department, Albany, New York 12224.

As agreed upon by some of the members of the Council of Graduate Schools in the United States, the regular time for notification of award from Cornell of fellowships and scholarships for the succeeding academic year is April 1. *All fellowship and scholarship applications received by February 1 will be considered for April awards*, and every effort will be made to notify each applicant approved for award no later than April 6 as to whether he has a fellowship or is named as an alternate. It is hoped that the awardees will notify the Graduate School no later than April 15 of their acceptance or rejection of the award; failure to do so will be considered a declination. Applications received after February 1 will be considered only if vacancies occur.

MINORITY GROUP FELLOWSHIPS. Recently the Fellowship Board has awarded a number of fellowships to applicants from minority groups who were not awarded support through the regular channels (regular fellowships, traineeships, teaching and research assistantships, etc.). The student does not apply for these fellowships directly, but is nominated by the Field to which he was admitted if the Field finds that the student cannot be offered support from the other sources mentioned above.

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RESIDENCE HALL ASSISTANTSHIPS are available for single or married men and women graduate students in any academic field. These positions are most appropriate for students who desire experience in working with undergraduate students and University staff while contributing financially to their own study.

There are approximately twenty-five resident positions available. Remuneration includes payment of one-half tuition and full fees plus a board supplement and stipend which varies according to responsibilities. Details about the assistantships and application forms may be obtained from the Office of the Dean of Students, 133 Day Hall. A personal interview is required of all applicants. Applications must be completed by February 1, 1971.

PRIZES. Several University prizes are open for competition to all students, including graduate students. The Committee on Prizes of the University faculty publishes an *Announcement of Prize Competitions*, which may be obtained from the Visitor Information Center, Day Hall.

Two prizes are open exclusively to graduate students:

The Guilford Essay Prize. Until at least 1971 a special prize of \$120 will be assigned annually to that graduate student who, in the judgment of the Graduate Faculty, writes the best English prose. Each competitor must submit, at or before 4:30 p.m. of the last Monday in November, specimens of his English prose, preferably prepared as a normal part of his training in candidacy for an advanced degree.

The Philosophy Prize. A prize of \$50 is awarded to the graduate student who submits the best paper embodying the results of research in the Field of Philosophy. The subject of the paper may be historical or critical or constructive. It may be concerned either with problems of pure philosophy or with the philosophical bearing of the concepts and methods of the sciences. Papers must be submitted on or before the first day of May.

Papers submitted in competition for either prize must be typewritten on bond paper (a clean *ribbon* copy), double-spaced, at least 1,500 and not more than 5,000 words in length, and signed with an assumed name, the real name and address of the competitor being enclosed in a sealed envelope, superscribed with the assumed name. They are to be deposited in the Office of the Graduate School. A student may not submit more than one paper.

LOANS. Applications for National Defense and University loans are available at the Office of Scholarships and Financial Aid, 105 Day Hall.

Increasingly the University is referring both undergraduate and graduate students to their state loan program sponsored under a federal program. Applications for this program can generally be obtained from the student's home bank.

Only graduate students duly registered in a degree-granting program are eligible for loans. Provisional or noncandidate students are not eligible.

The application date for National Defense and University loans is the mid-April prior to the student's September matriculation.

PART-TIME EMPLOYMENT. Opportunities for part-time work are often available in connection with departmental research projects or other activities. Applications for this type of work should be made directly to the department concerned. A candidate may find employment in research or other work closely allied to his academic interest valuable. On the other hand, progress in candidacy is difficult when a student attempts to support himself wholly or partially by work unrelated to his studies. It usually is sounder economy to borrow from the Office of Scholarships and Financial Aid and keep employment to a minimum. However, the University maintains a part-time employment service in that office.

EMPLOYMENT FOR WIVES OF STUDENTS. Cornell University offers many nonacademic positions for working wives through the Personnel Department, B-12 Ives Hall. Types of work include secretarial and clerical work, work for technicians in the various laboratories, library work, limited nursing positions, and some administrative positions. Applications may be made through the Personnel Department upon arrival on campus. Applications for academic positions should apply to the specific departments in which they are interested.

In addition to the University positions, the Ithaca area offers opportunities for similar positions in small industrial plants, at Ithaca College, the local hospital, and various businesses, as well as for teaching positions in the public school system and some professional positions in service agencies. Applicants should go to the New York State Employment Office for further information regarding these opportunities.

General Information

COURSES AND GRADES. The Graduate School is not a course-offering agency. Therefore, students wishing information about courses or grades should inquire at the Office of the Registrar. However, the Graduate Faculty has ruled that a course may not be dropped or changed from credit to audit after the tenth week of classes.

ACTIVITIES FOR GRADUATE STUDENTS. Cornell students enjoy the advantages of a small academic community while having access to many cultural events that rival those of any large city. Lectures, movies, dramatic productions, special art exhibitions, and concerts fill the University's weekly calendar. The Bailey Hall Concert Series brings internationally famous artists and orchestras to Ithaca.

Many graduate students participate with undergraduates in extracurricular activities such as intramural sports, Glee Club, Sage Chapel Choir, publications, music, and folk dancing. A Graduate Student Activities Committee is active in scheduling weekly social events. A Graduate Wives' Club has had a long tradition of activity for the wives of graduate students. Willard Straight Hall and the Sage Graduate Center provide facilities for graduate groups and aid in planning special functions for them.

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Cornell United Religious Work (CURW) includes a range of activities for graduate students. Its offices are in Anabel Taylor Hall, which serves as headquarters for chaplains who represent several denominations and who may be consulted by students.

Cornell's location in the Finger Lakes Region of New York State encourages outdoor activity. Many swimming and boating facilities are available. In addition, Cornell operates a private eighteen-hole golf course; indoor and outdoor swimming facilities; an indoor skating rink; tennis, handball, and squash courts; a gymnasium; and riding stables. Several ski resorts also operate nearby.

Many Fields sponsor weekly seminars for their faculty and graduate students.

COUNSELING. The University maintains a variety of counseling services available to graduate students. A student's primary academic counselors are the members of his Special Committee. Other counselors who are able to help in matters of various kinds will be found in the Office of the Dean of Students, the Office of Scholarships and Financial Aid, the International Student Office, the Gannett Medical Clinic, and the Sage Graduate Center.

INTERNATIONAL STUDENTS. Cornell has, since its founding, welcomed students from abroad. Currently about 1,100 foreign students representing ninety countries are pursuing study in a variety of fields.

In addition, each year more than one hundred faculty members spend some time abroad in study and research, often in close association with foreign universities. This creates within the University community opportunities for students from other countries to meet and exchange ideas with members of the Cornell faculty who have firsthand knowledge of several countries and understand and appreciate a variety of cultures.

Special programs within the Graduate School permit study in depth of particular areas such as Africa, Asia, Southeast Asia, Latin America, and the Near East (see p. 31 ff.) Students from these areas have an opportunity to contribute to such programs.

A group of Cornell faculty and Ithaca families maintain a Host Family Program, in which foreign students are invited to share in some aspects of American family life in the Ithaca community. Because the University population is a varied one, the community itself, although not large, tends to have a more cosmopolitan atmosphere than most other small cities, and the student can usually find an outlet for a wide variety of interests. Tours of the community are conducted at the beginning of the fall semester.

The University maintains an International Student Office at 142 Day Hall. Students from abroad are asked to report to this Office upon arriving in Ithaca and are invited to consult the staff on any questions they may have. The Office works in close association with academic advisers and sponsors, and also with persons involved in a number of student and community programs in efforts to enrich the international and cultural life of Cornell.

HEALTH REQUIREMENTS ON ENTRANCE. The following health requirements for entering graduate students have been adopted by the Board of Trustees of Cornell University. The responsibility for fulfilling these require-

ments rests upon the student; failure to do so may result in loss of the privilege of registering the following term.

Immunization. A satisfactory certificate of immunization against smallpox, on the form supplied by the University, must be submitted before registration. It will be accepted as satisfactory only if it certifies that within the last three years a successful vaccination has been performed. If this requirement cannot be fulfilled by the student's home physician, opportunity for immunization will be offered by the Cornell medical staff during the student's first semester, with the cost to be borne by the student. If a student has been absent from the University for more than three years, immunity will be considered to have lapsed and a certificate of revaccination must be submitted.

The University Health Services strongly recommend that all graduate students be immunized against tetanus before entering the University. Students may, however, obtain initial and all booster tetanus toxoid immunizations at the Gannett Clinic for a nominal charge.

Health History. Graduate students, when accepted, must submit *health histories* on forms supplied by the University. These should be returned promptly to the Gannett Medical Clinic. A University physician will review the material before it becomes part of the student's permanent health record. All information given is confidential. After arrival at Cornell, if the medical history indicates a need, a student will be given an appointment to consult a physician at the Clinic. When a student has been away from the University for more than a year, he must, upon reentrance, submit an interim health history on a University form.

X Ray. Every student is required to have a chest x ray. Opportunity to satisfy this requirement is given during the student's first week on campus. The cost of the x-ray examination is included in the General Fee. When a student who has been away from the University for more than a year wishes to re-enter, he must, at his own expense, once more fulfill the chest x-ray requirement.

HEALTH SERVICES AND MEDICAL CARE. Health services and medical care for students are centered in two Cornell facilities: the Gannett Medical Clinic (outpatient department) and the Sage Infirmary.

Students are entitled to unlimited visits at the Clinic. Appointments with individual doctors at the Clinic may be made by calling or going there in person. (An acutely ill student will be seen promptly whether he has an appointment or not.) Students are also entitled to laboratory and x-ray examinations indicated for diagnosis and treatment, hospitalization in the Sage Infirmary with medical care for a maximum of fourteen days each term, and emergency surgical care.

On a voluntary basis, insurance is available to supplement the services provided by the General Fee. For further details see the *Announcement of General Information*. If, in the opinion of the University authorities, the student's health makes it unwise for him to remain in the University, he may be required to withdraw.

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If a student prefers to consult a private physician rather than go to the Clinic, or to have the services of a private doctor while a patient in Sage Infirmary, he must bear the cost of these services.

LIVING ARRANGEMENTS. For information about and applications for the University housing described below, write to the Department of Housing and Dining Services, 223 Day Hall.

Dormitory Accommodations. The University has established Sage Graduate Center as a graduate residential center. Its dormitory facilities accommodate approximately 75 men in the north side of the building and 115 women in the south side. The Graduate Center, which is available for use by graduate students and faculty, also contains a cafeteria seating 200, study rooms, and lounges. In addition, Cascadilla Hall has accommodations for approximately 160 men and women.

Family Accommodations. The University has three apartment developments for married students and their families. They are Cornell Quarters, Pleasant Grove Apartments, and Hasbrouck Apartments, with housing for a total of 420 families. All apartments are unfurnished.

Off-Campus Housing. The Department of Housing and Dining also maintains files of voluntarily listed accommodations for use of students and staff members who call at the office. Because the list of available accommodations is constantly changing, it is not practical to mail listings, nor is it feasible to maintain a waiting list of persons seeking accommodations.

MOTOR VEHICLES. The University does not encourage student use of motor vehicles but recognizes that in certain cases there may be important reasons why a student needs a motor vehicle. University regulations apply to all types of motor vehicles, including automobiles, motorcycles, motor bikes, and motor scooters.

Every Cornell University student who owns, maintains, or for his or her own benefit operates a motor vehicle in Tompkins County while the University is in session must register that vehicle with the Board on Traffic Control, unless such vehicle is currently registered with the Board on Traffic Control.

All students required to register motor vehicles must do so within the time designated for academic registration at the beginning of the fall term or the beginning of the Summer Session. Students who enter the University at the beginning of the spring term must register upon entering. Students who re-enter the University after a period of absence must register upon reentering. Students who do not own, maintain, or operate motor vehicles which must be registered at one of these times but who later acquire a vehicle or otherwise become subject to registration requirements must complete their vehicle registration within five days after becoming so subject.

The following requirements must be met for vehicle registration:

- (1) The applicant must be legally qualified to operate a motor vehicle in New York State.

(2) The vehicle must be registered in New York State or in some other state or jurisdiction that qualifies it for legal operation in the state of New York.

(3) The owner of the vehicle must be covered by effective public liability insurance in the minimum amounts of \$10,000–\$20,000 for personal injury and \$5,000 for property damage. Such insurance must cover any liability incurred while the vehicle is driven either by the registrant or by someone with the registrant's explicit or implicit permission. If at any time such insurance lapses or ceases to be fully effective, the registration of the vehicle shall be automatically cancelled.

(4) There must be no unpaid University-imposed parking fines outstanding against the applicant or the vehicle to be registered.

No vehicle may be parked on the grounds of the University without valid registration and without displaying an appropriate registration and parking permit, as explained in *Regulations Governing Motor Vehicles*, unless the vehicle is not subject to such registration and is parked at a parking meter, parked in a parking area designated for visitors, or has the prior approval of the Board on Traffic Control or its authorized representative.

The student vehicle registration sticker is not a parking permit. Except for those holding parking permits, no student shall park his motor vehicle on the grounds of the University during the hours from 8:00 a.m. to 5:00 p.m. Monday through Friday or from 8:00 a.m. to 1:00 p.m. on Saturdays (except in posted unrestricted time zones and/or unrestricted metered parking spaces).

The student's registration in the University is held to constitute an agreement on his part that he will abide by all its rules and regulations with regard to traffic and parking or suffer the penalty prescribed for any violation of them.

For more detailed information regarding motor vehicle regulations, see the brochure *Regulations Governing Motor Vehicles*, available from the Division of Safety and Security in Barton Hall. Correspondence regarding motor vehicles should be addressed to the Board on Traffic Control, G-2 Barton Hall.

CAREER, SUMMER PLANS, AND PLACEMENT CENTER. The Career, Summer Plans, and Placement Center at 14 East Avenue is a clearing house for jobs in business, industry, government, and teaching, as well as for study programs leading to the professions. It serves as an information center for careers, teacher placement, fellowships, techniques of job hunting, and summer experiences (work, study, travel, service projects). More than a thousand recruiters visit the campus each year representing employers and graduate schools. Students and faculty may keep up to date on the activities of the Center by registering to receive its *Newsletter*. Alumni may be served by either the *Job Bulletin* or the *Registrants Available Bulletin*. Through the support and cooperation of the Cornell Club of New York and the Cornell Society of Engineers, a placement office is maintained in New York City primarily for alumni living in that area.

Tuition and Fees

Tuition and fees* become due when the student registers. Any student who fails to pay his tuition, fees, and other indebtedness to the University at the Treasurer's Office within the prescribed period of grace will be dropped from the University unless the treasurer has granted him an extension of time to complete payment. The treasurer is permitted to grant such an extension when, in his judgment, the circumstances of a particular case warrant his doing so. For any such extension the student is charged a fee of \$5. A reinstatement fee of \$10 is assessed against any student who is permitted to continue or return to classes after being dropped from the University for default in payments. The assessment may be waived in any instance for reasons satisfactory to the treasurer and the registrar when such reasons are set forth in a written statement.

Students registering at any time during the last ten weeks of any term are required to pay tuition at the rate of 10 percent of the regular tuition of the term for each week or fraction of a week between the day of registration and the last examination day of the term.

Tuition or fees may be changed by the trustees at any time without previous notice.

REGISTRATION DEPOSIT. Every applicant for admission must make a deposit of \$35 after receiving notice of acceptance, unless he 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 incidental to graduation if the student receives a degree. The deposit will not be refunded to any candidate who withdraws his application after May 10 or more than fifteen days after his admission approval. This fee is *not* covered by University fellowships, scholarships, or assistantships.

TUITION. Tuition is \$200 a term for all students registered in the Graduate School (1) whose major chairman is on the faculty of the statutory division† of the University or (2) who are enrolled in a Master of Arts in Teaching program. Those with major work in the School of Nutrition, the Field of Education, and the Division of Biological Sciences also pay \$200 a term. All students in other divisions must pay tuition of \$1,010 a term. Tuition is payable at the beginning of each term.

Upon recommendation by the appropriate college dean and by action of the controller, a student who is a teaching or research assistant in one of the statutory schools or colleges may obtain waiver of tuition in the Graduate School if his major field of study is in a statutory school or college.

Assistants in statutory schools or colleges who are on twelve-month appointments and who are registered for Summer Research for credit in the

* All statements in this section are prepared by the University treasurer, who alone is authorized to interpret them.

† The statutory divisions are the Veterinary College, the Colleges of Agriculture and Human Ecology, and the School of Industrial and Labor Relations.

Graduate School 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 or is not doing productive work for the department.

Any student who is to receive less than full residence credit because of his employment should apply for proration of tuition on forms procurable at the Graduate School Office. *Tuition is based on residence eligibility.* See p. 11.

GENERAL FEE. A fee of \$312.50, payable at the beginning of each term, is required of each student registered in the Graduate School whose major chairman is on the faculty of one of the statutory divisions, the School of Nutrition, the Field of Education, or the Division of Biological Sciences. All others pay a fee of \$290. This General Fee contributes toward the services supplied by the libraries, Clinic and Infirmary, and the student union in Willard Straight Hall, and pays a portion of the extra cost of laboratory courses and general administration.

A student who is regularly registered in the Graduate School for either one or both terms of the academic year and has paid the above fee is entitled to these services while in residence during the summer immediately following the academic year without payment of an additional General Fee. If such a student registers with the University during the summer, he is liable for payment of any tuition and other fees, and must present his ID card at the time of payment of these charges in order to claim exemption from payment of the General Fee.

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, must register as a "Candidate for Degree Only" and pay a fee of \$35.

THESIS FEE. Each doctoral candidate must pay \$30 when he deposits 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 microfilm and abstract to the microfilm publisher; and of binding both copies of the thesis for deposit in the University Library.

LIMITED REFUNDS. Part of the tuition and General Fee will be refunded to students who officially withdraw or take a leave of absence during the first nine weeks of a term. A student arranges for a leave of absence or withdrawal at the Graduate School Office. Students who withdraw are charged tuition and the General Fee at the rate of 10 percent for each week or fraction of a week from registration to the effective date of withdrawal. No charge is made if the student begins his leave of absence or withdraws within six days of registration. No part of the registration or matriculation fee is refundable.

SUMMER SESSION. Graduate students who attend classes in the Summer Session must register both in the Graduate School and in the Summer Ses-

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sion; they must pay the tuition and fees listed in the *Announcement of the Summer Session*.

SUMMER RESEARCH. Students registered for Summer Research pay one-half of the General Fee for a registration period of not more than eight weeks and the full fee for a longer registration period unless they were regularly registered in the Graduate School during the previous academic year. For those students eligible for and desiring residence, a prorated tuition is charged in accordance with the fraction of a residence unit to be earned, based on the tuition in effect for the subsequent academic term.

IN ABSENTIA. A graduate student registered *in absentia* will pay a fee of \$35 each term.

Advanced Professional Degrees

Advanced professional degrees are designed as preparations and training for a special profession.* The admissions, requirements, and curricula for such degrees, as approved by the Graduate Faculty, are announced by the faculty of a professional school or college, which, for this purpose, acts as a Division of the Graduate Faculty. Degrees are awarded upon recommendation of the Division to the Graduate Faculty. Detailed information regarding admission or academic requirements for any professional degree is included in the *Announcement* of the separate school or college in which the degree is offered. Inquiries addressed to the Graduate School will be forwarded to the proper official. The professional degrees listed below are approved by the Graduate Faculty.

Agriculture

MASTER OF AGRICULTURE (M.Agr.). This degree is intended for professional agriculturists seeking opportunity to study in depth some subject or problem which is pertinent to their profession. Detailed information may be obtained from Director Herbert L. Everett, 192 Roberts Hall.

Architecture, Fine Arts, City and Regional Planning

The following three degrees are administered by the Division of Architecture, Art, and Planning of the Graduate School. Inquiries should be addressed to the listed professor.

* The following are advanced degrees which are also first degrees of a school or college and therefore are not subject to the jurisdiction of the Graduate Faculty. For information regarding them, address the school or college indicated.

Master of Engineering (Aerospace)	Graduate School of Aerospace Engineering
Master of Business Administration	}	Graduate School of Business and Public Administration
Master of Public Administration		
Doctor of Law	Law School
Doctor of Medicine	Medical College, New York City
Doctor of Veterinary Medicine	Veterinary College

For more detailed information on these degrees, as well as those in architectural structures, architectural history, and art, see also the Architecture section under *Fields of Instruction*.

MASTER OF ARCHITECTURE (M.Arch.). Training in urban design. Only graduates of a five-year professional program in architecture or graduates of a program in city planning or landscape architecture are admitted as candidates. (Professor Colin Rowe.)

MASTER OF FINE ARTS (M.F.A.). Advanced training in the practice of painting, sculpture, or graphic arts. (Professor Jason Seley.)

MASTER OF REGIONAL PLANNING (M.R.P.). Training for a professional career in the field of city planning or regional planning. (Professor Kermit C. Parsons.)

Communication Arts

MASTER OF COMMUNICATION ARTS (M.C.A.). The focus of this program is more on the *strategic application* of communication knowledge and technology than on technical competence in media operation. The curriculum is designed for those students who wish to work with agencies in which organized public communication is a key concern. Emphasis is placed on three key elements: (1) analysis of what is known about the communication process, (2) exploration of the potential of current and new communication techniques and technology, and (3) application of the first two elements to specific communication problems.

Education

Two professional degrees are administered by the Field of Education of the Graduate School. The programs leading to each of the degrees include courses, seminars, projects, and investigations that will develop the student's ability to perform acceptably the professional duties required of the several types of educational specialization.

MASTER OF ARTS IN TEACHING (M.A.T.). This program is designed for and limited to those preparing for teaching the following subjects only in secondary schools: agriculture, biology, chemistry, earth science, English, French, home economics, physics, and social studies. The student and his Special Committee will select those courses and seminars in his teaching specialty and in education which are deemed most appropriate for developing competence as a teacher. The student will be required to demonstrate his teaching skill in a supervised field experience. Completion of two regular semesters and one summer of full-time study, or two and two-fifths residence units is required. Graduates of a teacher-training program are not eligible for this degree.

DOCTOR OF EDUCATION (Ed.D.). The program for this degree is designed to prepare the candidate within a broad cultural context for positions of

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professional leadership in education. The program of studies must include advanced work in each of the following: educational psychology, history or 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. A minimum of sixty-five credit hours beyond the Bachelor's degree is required, of which thirty-five hours should be completed beyond the Master's degree or its equivalent. A candidate is required to complete a minimum of five residence units beyond the Bachelor's degree and a year of directed field experience.

Professional Teaching

MASTER OF SCIENCE FOR TEACHERS (M.S.T.). This is a coordinated program of training in the biological and physical sciences for practicing teachers. Each degree candidate must satisfy a broad core program in mathematics and science and complete advanced work in his selected field of study. This degree is administered by the Division of Professional Teaching of the Graduate School. Detailed information may be obtained from the Graduate School Office, Sage Graduate Center.

Engineering

MASTER OF ENGINEERING. The Master of Engineering degree is administered by the Engineering Division of the Graduate School. Specially oriented graduate programs of study are in the areas of agricultural, chemical, civil, electrical, industrial, materials, mechanical, and nuclear engineering, and in engineering physics. The following titles designate the professional Master's degrees offered in engineering: Master of Engineering (Agricultural), Master of Engineering (Chemical), Master of Engineering (Civil), Master of Engineering (Electrical), Master of Engineering (Engineering Physics), Master of Engineering (Industrial), Master of Engineering (Materials), Master of Engineering (Mechanical), Master of Engineering (Nuclear). The Graduate School of Aerospace Engineering administers the Master of Engineering (Aerospace) degree program.

The general requirements for the degrees listed above are:

1. A minimum of thirty credit hours of advanced technical course work in the specific field or in related subjects.
2. A minimum of three credit hours (included in the above) of engineering design experience involving individual effort and formal report.
3. A minimum grade point average of 2.5 and a minimum final grade of C minus for all courses counting toward the degree.

There are no residence requirements, although all course work must, in general, be completed under Cornell University staff instruction. The degree requirements must normally be completed within a period of four calendar years.

Graduates of Cornell University who hold Bachelor of Engineering degrees may be granted up to fifteen hours credit for advanced courses taken during

their fifth undergraduate year, provided they enter the Master of Engineering program not later than the fall term following the sixth anniversary of their receiving the Bachelor of Engineering degree.

The *Announcement of the College of Engineering* should be consulted for further details on the various professional Master's programs.

English

MASTER OF FINE ARTS (M.F.A.). The degree of Master of Fine Arts in creative writing is designed to prepare candidates for careers in professional writing or in the teaching of creative writing. The program is administered by a specially appointed committee of the Department of English, acting as a Division of the Graduate School.

Industrial and Labor Relations

MASTER OF INDUSTRIAL AND LABOR RELATIONS (M.I.L.R.). The four-semester program leading to this degree provides a basic course of graduate study for those with professional interests in industrial and labor relations and further provides limited opportunities for specialized professional study where broad competence has been established. This degree is administered by the Division of Industrial and Labor Relations of the Graduate School. Students possessing a law degree may be eligible for a two-semester M.I.L.R. program. More information may be obtained by writing to: Graduate Field Representative, School of Industrial and Labor Relations, Ives Hall.

Law

The following two degrees are administered by the Division of Law of the Graduate School. The *Announcement of the Law School* should be consulted for a complete description of the program and requirements.

MASTER OF LAWS (LL.M.). This degree is intended primarily for the student who desires to increase his knowledge of the law by working in a specialized field.

DOCTOR OF THE SCIENCE OF LAWS (J.S.D.). This degree is intended primarily for the student who desires to become a proficient scholar by original investigation into the functions, administration, history, and progress of law.

Music

The following two degrees are appropriate for mature composers who seek further professional training as well as knowledge of the other arts and humanities, both to enrich their creative perspectives and to prepare them for the teaching of composition and theory at the university level.

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MASTER OF FINE ARTS (M.F.A.)

DOCTOR OF MUSICAL ARTS (D.M.A.)

These degrees are administered by the Department of Music, acting as a Division of the Graduate School for this purpose. More information may be obtained from Professor Robert M. Palmer, 218 Lincoln Hall.

Nutritional and Food Science

The following two degrees are administered by the faculty of the Graduate School of Nutrition acting as a Division of the Graduate School. More information may be obtained by writing to: Secretary, Graduate School of Nutrition, Savage Hall.

MASTER OF NUTRITIONAL SCIENCE (M.N.S.). This program emphasizes fundamental study in the basic biological sciences that can lead to specialization in such areas as nutritional biochemistry, human and clinical nutrition, experimental or animal nutrition, and public health and international nutrition. The program is open to students who have had no previous course work in nutrition. For candidates interested in the biological sciences, the program serves as a valuable preliminary for graduate study for the Ph.D. degree in such areas as biochemistry and physiology, as well as human or animal nutrition.

MASTER OF FOOD SCIENCE (M.F.S.). The fundamental sciences, chemistry, biochemistry, and bacteriology, that are involved in food processing and utilization, are emphasized. Electives are available to meet individual needs in engineering, economics, marketing, business administration, and international programs. The specialized training serves as a preparation for technical work in the food industry or for more advanced graduate study.

The *Announcement of the Graduate School of Nutrition* should be consulted for further details on the professional Master's degree programs.

Theatre Arts

MASTER OF FINE ARTS (M.F.A.). The degree of Master of Fine Arts in theatre arts is intended for students who wish to increase their professional competence as actors or directors through a studio-oriented program. It is administered by the Department of Theatre Arts, acting as a Division of the Graduate School for this purpose.

Veterinary Medicine

DOCTOR OF SCIENCE IN VETERINARY MEDICINE (D.Sc. in V.M.). This degree is characterized by a professional rather than a general research objective, and it is designed especially for experienced persons in the basic and clinical sciences who need more specific, advanced, scientific, and professional knowledge in order to equip themselves for careers in teaching and research. This degree is administered by the Division of Veterinary Medicine of the Graduate School.

Graduate School of Medical Sciences

The opportunity for graduate work leading to advanced general degrees was first offered in the Medical College in 1912 in cooperation with the Graduate School of Cornell University. In June 1950, the trustees of Cornell University entered into an agreement with the Sloan-Kettering Institute for Cancer Research whereby a new division of the Medical College, namely, the Sloan-Kettering Division, was created for the purpose of offering additional opportunities for graduate study toward advanced degrees, thus extending the areas of the basic sciences.

That expansion of the New York City component of the Graduate School resulted in the establishment, in January 1952, of the Graduate School of Medical Sciences which, with the approval of the Faculty of the Graduate School of Cornell University, was given the full responsibility for administrative matters related to the advanced general degrees granted for study in residence at the New York City campus of Cornell University.

DEGREES. The general degrees of Ph.D. and M.S. are awarded for advanced study and scholarly, independent research in the fields of anatomy, biochemistry, biomathematics, biophysics, biostatistics, cell biology, genetics, microbiology, neurobiology and behavior, pharmacology, and physiology.

FACILITIES. The facilities for graduate work at the Graduate School of Medical Sciences include those of the Medical College and of the Sloan-Kettering Division. The five buildings of the Medical College, extending along York Avenue from Sixty-eighth to Seventieth Street in New York City, contain the lecture rooms, student laboratories, library, and research facilities for graduate and undergraduate work. The Sloan-Kettering Division is located in the Sloan-Kettering Institute and the Kettering Laboratory on East Sixty-eighth Street in New York City, and in the Walker Laboratory in Rye, New York. The special facilities and experienced investigators of the Sloan-Kettering Division offer ample opportunity for advanced graduate work in the basic science aspects of research related to cancer and allied diseases.

FINANCIAL ASSISTANCE. Predoctoral fellowships are available to qualified applicants. The fellowships may be renewed yearly providing the academic performance of the fellowship holders is satisfactory. Teaching fellowships and research assistantships are available to qualified graduate students in some departments of the Medical College. In addition to a stipend, the costs of tuition and fees are defrayed for those students receiving financial assistance.

FURTHER INFORMATION. Information on financial assistance and the entire program of the Graduate School of Medical Sciences is provided in the *Announcement of the Graduate School of Medical Sciences*. Requests for that *Announcement* should be addressed to the Graduate School of Medical Sciences, Cornell University, Medical College, 1300 York Avenue, New York, New York 10021.

Special Resources for Research and Advanced Study

The descriptions below are limited to major general facilities available to graduate students. Other substantial collections and facilities, in many instances unique, have been assembled for the use of graduate students. Although the facilities cannot be described adequately in this *Announcement*, some of them are mentioned in the statements given under the Fields of Instruction on p. 50 ff.

Cornell University Libraries

The libraries are among the principal facilities in the University's program of graduate studies. The total number of volumes at Cornell is now over 3,600,000 and that figure increases by about 200,000 each year. For the convenience of students and faculty, the holdings are organized into a controlled system of distinct libraries. Some of the libraries are large; some have limited holdings. Some are general; some selective. Each library, whether within one of the colleges or housed in a building of its own, is situated where its books and its facilities lie most easily available to those who use them most. The libraries, whatever their nature, have been developed over many years by scholarly librarians and professors with the view of achieving breadth and depth in the central libraries, utility and coherence in the specialized ones.

The University's libraries offer support for graduate studies at several levels. They provide basic readings in virtually all subjects, collateral studies for classroom and seminar instruction, and highly specialized materials for advanced students. An unusually rich collection of reference works, both modern and antiquarian, expedites both daily study and dissertational research. Of journals and periodicals, about 50,000 titles are available, most of them in complete runs, some of them in multiple copies, all of them immediately available. Special departments are maintained for maps, microtexts, documents, newspapers, and other such collections.

To most graduate students, Olin Library, designed primarily as a research library, becomes the most familiar. Olin Library, completed in 1961, offers every modern library facility for its readers. The building is completely air-conditioned, scientifically lighted, comfortably furnished, and organized for efficient operation. It provides easy access to the book stacks, convenient photocopying facilities, and a comfortable lounge area for graduate students. Congestion is eliminated not only because of architectural design but also because undergraduates have their own open-stack library in a separate building. A graduate student whose work has advanced to the writing stage may apply for use of a carrel adjoining the book stacks in order to facilitate completion of his dissertation. Olin Library is open during the term from 8:00 a.m. to 12:00 midnight weekdays, and from 1:00 p.m. to 12:00 midnight Sundays.

Within Olin are a number of special collections likely to be of particular interest to advanced students of the social sciences and the humanities. The Department of Rare Books houses several distinguished collections, among them books and manuscripts relating to Dante, Petrarch, Wordsworth, Joyce, Shaw, and other literary figures. The Noyes Collection is rich in American historical documents, especially those pertaining to Lincoln and the Civil War. Students in the social sciences will also find extraordinarily interesting manuscripts and books in the collections of slavery and abolition, of witchcraft, of the French Revolution, and of the life and times of Lafayette. Long familiar to professional scholars are the Wason Collection on China, Japan, and Southeast Asia, and the Old Icelandic Collection. The History of Science Collections include the Adelman Library of Embryology and Anatomy, and the library of the French scientist, Lavoisier. The Collection of Regional History and Cornell University Archives is a manuscript depository with total holdings of more than 20,000,000 items. These manuscripts relate to all aspects of the economic, political, and social history of this region and the areas historically connected with it. Here, too, are the documents and manuscripts relevant to the founding and development of Cornell University. In addition to the collections in Olin Library, many of the college and department libraries also contain materials unique in their respective fields. Curators and reference librarians in all the libraries are available for counsel concerning the availability and use of research materials.

The University libraries in aggregate consist of Olin Library, as mentioned, Uris Library for undergraduates, the Physical Sciences Library, the Mann Library of Agriculture and Human Ecology, and the libraries of the following colleges and schools: Fine Arts, Business and Public Administration, Engineering, Hotel Administration, Industrial and Labor Relations, Law, Medicine (in New York City), and Veterinary Medicine. Added to these are the libraries of academic divisions and departments, together with those of the Agricultural Experiment Station at Geneva, New York.

International Studies Programs

Center for International Studies

The primary function of the Center for International Studies is to foster, coordinate, and support the University's international activities. In addition to its role as a link between the activities of the specialized programs, the Center routinely crosses interdisciplinary lines in its endeavor to interest faculty and students in innovative international teaching and problem-centered research.

Students interested in foreign area studies or in international problems will find that the flexibility of both undergraduate and graduate requirements permits considerable latitude in selecting subjects. Appropriate courses of study can be selected from the regular offerings of various departments of the University. For example, in the College of Arts and Sciences the Department of Government offers instruction in comparative government, international relations, and international law and organization; in the Department

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of Economics there are offerings in international economics, economic development, international trade, and the economics of workers' management; the Department of Sociology offers courses in population problems and international urbanization. In the College of Agriculture courses are available in the economics of agricultural development, international agriculture, and rural sociology. The School of Business and Public Administration offers courses in international development and comparative administration. The School of Industrial and Labor Relations offers courses in international and comparative labor relations.

The graduate student seeking specialized foreign-area knowledge may arrange a minor in one of the interdisciplinary area programs: Asian Studies or Latin American Studies. It is also possible to pursue an area interest in European Studies, Soviet Studies, or African Studies.

In cooperation with the Program on Science, Technology, and Society (STS), the Center is developing a Peace Studies Program. The core of this Program is an interdisciplinary seminar, "The Impact of Technology on Foreign Defense and Disarmament Policies," complemented by several other courses on defense and arms control.

Another area being developed jointly by the Center and STS is international flows of scientific information and manpower. Two new courses have been designed to explore this phenomenon. One deals with flows between developed and developing countries; the other concentrates on scientific/technological flows among developed countries.

A new doctoral specialization in the economics of participation and labor managed systems is offered as part of an interdisciplinary teaching and research program on the problem of participative management.

The International Population Program is being expanded to include the policy, administration, and communications problems related to the development of family planning programs in an international and comparative perspective.

Other activities of the Center include lectures and seminars presented by distinguished visitors, overseas and domestic research projects, conferences, student training, and publication.

The continued growth of the international programs has been accompanied by the creation of an outstanding and comprehensive infrastructure of staff, library, language facilities, and other necessary resources.

The work of the Center and of associated programs and activities is more fully described in the Center's *Annual Report of International Studies at Cornell University*. Further information may be obtained from the Center's office in 217 Rand Hall.

China Program

FACULTY: Knight Biggerstaff, Nicholas C. Bodman, Nai-Ruenn Chen, Chuen-tang Chow, John C. H. Fei, Ta-Chung Liu, John McCoy, David Mozingo, Charles A. Peterson, Harold Shadick, Judith M. Treistman, Martie W. Young.

The China Program provides comprehensive graduate-level training and sponsors a wide range of research. The faculty represent the following fields:

anthropology, economics, government, history, history of art, linguistics, and literature.

Graduate students in the program take a major in one of the fields listed above. They are expected at an early stage to attain sufficient mastery of the Chinese language to permit use of Chinese sources in their courses and seminars and in their research.

The focus of much of the research and teaching in the Program is the society, polity, economy, culture, and arts of modern and contemporary China. Students with this concentration are also expected to develop a general knowledge of traditional institutions and culture. Students majoring in history concentrate on medieval or modern China; no chronological limits apply to those in the history of art, linguistics, or literature.

The China Program supports three projects: political organization, social change, and personality development; economic development within a Chinese cultural setting; and linguistic studies in Southeast China and in the southwest border regions. Research Assistantships are available to advanced graduate students working in these areas, and occasionally in other fields as well. London-Cornell Studentships are open to advanced Ph.D. candidates in the social sciences and humanities who are in the China Program. They are tenable for study during an academic year at the London School of Economics and Political Science or at the School of Oriental and African Studies of the University of London. Stipends include air fares and tuition and fees.

London-Cornell Field Research Grants are open to Ph.D. candidates whose interests directly concern problems of social change in East Asia. Grantees may conduct dissertation research in any part of East Asia, and stipends for this purpose include travel and research expenses.

National Defense Foreign Language Fellowships and Foreign Area Training Fellowships are tenable in the Program. Graduate students may also apply for other assistantships, fellowships, and scholarships offered by the University and its departments.

Additional information on the Program and the various fellowships and awards may be obtained by writing to the Director, China Program, 100-A Franklin Hall.

Program on Comparative Economic Development

The Program on Comparative Economic Development at Cornell University was founded in 1966 by a group of economists in the Department of Economics, the Department of Agricultural Economics, and the School of Industrial and Labor Relations. Its primary purpose is theoretical and empirical research into the causes and forces of economic development, emphasis being placed on the multiplicity and diversity of forms of the development phenomenon.

Several secondary benefits derive, or are expected to derive, from the activities of the Program. One is the educational feedback in the form of seminars, guest lecturers, and the availability of research scholarships to graduate students in the Department of Economics. Further arrangements

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are being made for the establishment of regional research and educational centers in selected focal development countries.

The Program is not restricted to economists. On the contrary, it is hoped that as time goes on cooperation will be obtained from other fields. In fact, the philosophy of a wider basis of development science, not restricted to economics, is intended to become the central strength of the Program.

Additional information may be obtained by writing to Jaroslav Vanek, Director of the Program, Goldwin Smith Hall.

International Agricultural Development Program

Cornell University provides unusual scope and facilities for graduate-level study and research concerning development of the critical agricultural sector of newly developing nations. An integrated program of research and graduate training is available in the various biological, physical, and social sciences fields which are relevant to agricultural development.

A student preparing for work in international agricultural development majors in a specific Field. In addition to basic preparation in that Field, he may minor in the Field of International Agricultural Development. The student may take courses which help him in applying his knowledge to the special conditions of newly developing nations, consult with experienced faculty members in regard to such application, and pursue a research project for his dissertation which is relevant to the special problems of newly developing countries. In much of this work the program in agriculture draws upon the strong international programs in other colleges of the University, including the area study programs and the varied offerings in modern languages.

Faculty experience in overseas work is continuously developed through work in College of Agriculture overseas programs and individual consulting assignments. Several faculty members, who devote themselves full time to research and teaching in international agricultural development, have built special programs of research and continuing contact with particular geographic areas. The environment for the International Agricultural Development Program is further enhanced by more than 250 foreign graduate students majoring in the various fields of studies represented by the College of Agriculture.

Substantial expansion has recently taken place in the international program of several departments. Most departments have a number of assistantships and teaching fellowships designed to finance graduate students while they work closely with the teaching and research program in international agricultural development. Doctoral candidates in these departments who are interested in international agricultural development generally do field research in newly developing countries for their doctoral dissertations.

Additional information may be obtained by writing to Professor K. L. Turk, Director, International Agricultural Development Program, 102 Roberts Hall.

International Legal Studies Program

The Cornell Law School offers a program of concentrated study in international legal subjects. The full program is ordinarily pursued by J.D. candi-

dates in their second and third years of regular law study, but all the courses in the Field are open to graduate students in law. Some of the courses are offered by visiting faculty members who come to the Law School under its program for distinguished foreign professors. A number of foreign scholars and students also come to Cornell for research and study in the comparative and international law fields. Other activities of the International Legal Studies Program have included faculty seminars in comparative law, summer conferences in public international law, and a program of speakers and seminars open to students. In addition, the Law School sponsors a small number of fellowships for foreign students to pursue graduate work in law.

For more detailed information, see the current *Announcement of the Law School*, and the current *Annual Report of the Center for International Studies*. Further information may be obtained by writing to Professor Robert A. Anthony, Chairman, Graduate Study Committee, Cornell Law School, or to the Director, Center for International Studies, 217 Rand Hall.

Latin American Studies Program

FACULTY: Donald K. Freebairn, director; Frederick B. Agard, Solon Baraclough, Jerome S. Bernstein, Dalai Brenes, Loy V. Crowder, David Davidson, Tom E. Davis, Martin Dominguez, Matthew Drosdoff, Charles L. Eastlack, Rose K. Goldsen, Thomas Gregor, Joseph A. Kahl, Eldon Kenworthy, Anthony G. Lozano, Thomas F. Lynch, Robert E. McDowell, James O. Morris, John V. Murra, Thomas Poleman, Glenn F. Read, Bernard Rosen, Donald F. Solá, J. Mayone Stycos, H. David Thurston, William F. Whyte, Lawrence K. Williams, Frank W. Young.

The Latin American Studies Program enables the graduate student to develop specialized competence in the history, culture, social organization, and languages of Latin American countries. The student majoring in a relevant discipline can minor in Latin American Studies.

Some forty courses directly pertaining to Latin America are offered by the Departments of Agricultural Economics, Agronomy, Animal Science, Anthropology, Consumer Economics and Public Policy, Development Sociology, Economics, Government, History, History of Art, Industrial and Labor Relations, Romance Studies, and Sociology. The courses constitute the basis for formulating programs leading to a graduate *minor* in Latin American Studies. Normally, five or six semester-long offerings satisfy the formal course requirements. In addition, the degree candidate minoring in Latin American Studies must exhibit proficiency in reading and speaking either Spanish or Portuguese.

Applications for scholarships, fellowships, or teaching fellowships should be made to the department in which the student is taking his major. Students minoring in Latin American Studies qualify for NDEA Title VI Modern Language Fellowships. Application forms may be obtained from the Graduate School.

Summer research travel grants and support for on-campus course work during the summer are available to selected graduate students through the Latin American Studies Program. Although thesis research may be supported

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by the Program, support should first be sought from the Foreign Area Training Fellowship Program, the Social Science Research Council, Fulbright-Hays, the Doherty Foundation, and the Organization of American States.

Because of the considerable volume of research on Latin America currently being carried out by Cornell faculty members, students will normally be afforded the opportunity of participating in ongoing projects while in residence and will generally be expected to do field work in Latin America at some stage of their graduate training. Major research projects are under way in the fields of Andean community development, comparative economic development, fertility and population, descriptive linguistics, and urbanization.

Additional information may be obtained by writing to Donald K. Freebairn, Director, Latin American Studies Program, Rand Hall.

South Asia Program

(Bhutan, Ceylon, India, Nepal, Pakistan, Sikkim)

STAFF: Gerald Kelley, director; Messrs. Douglas E. Ashford, Harold R. Capener, Arch T. Dotson, Harold Feldman, James Gair, Leighton W. Hazlehurst, Michael Hugo-Brunt, Kenneth A. R. Kennedy, John W. Mellor, Stanley J. O'Connor.

The increasing importance of the peoples of the Indian subcontinent and of the role they play in world affairs enhances the need for providing opportunities in America for training and research in the field of Indic studies. The South Asia Program at Cornell, dealing primarily with India, Pakistan, Ceylon, and Nepal, is organized and equipped to help meet this need. Since 1948 it has sponsored a series of research projects on India and Ceylon, and it has trained a distinguished group of younger American and South Asian scholars in South Asian area and language studies. The Program faculty includes members from agricultural economics, anthropology, government, history of art, human development and family studies, business and public administration, development sociology, city and regional planning, and languages and linguistics. Sanskrit, Pali, Hindi, Urdu, Telugu, and Sinhalese are languages regularly offered at Cornell. Cornell participates in the interuniversity summer program which provides instruction in other South Asian languages and selected social sciences and humanities disciplines each summer on the campus of a member eastern university.

Qualified graduate students interested in specializing in the study of South Asia minor in Asian Studies with concentration on South Asia, in South Asian art history, or in South Asian linguistics. The doctoral candidate must have a reading knowledge of Hindi or, depending upon the subarea of his specialization, some other important language of South Asia.

RESEARCH AND FIELD TRAINING. The doctoral dissertations of students in the South Asia Program are normally based on research done in India, Pakistan, Ceylon, or Nepal. Students' field research may benefit from advice and guidance in the field by a Program staff member. At least one member of the faculty of the South Asia Program has been in South Asia for each of the last several years. Cornell is a charter member of the American

Institute of Indian Studies, which was organized to facilitate study and research in India by American advanced students and by faculty specializing in various aspects of Indian civilization and contemporary affairs. The University also maintains close links with a number of research agencies, programs, and institutions of higher learning, such as the Deccan College Postgraduate Research Centre, Delhi University, Osmania University (Hyderabad), and universities in Ceylon. Staff members of these institutions have provided valuable assistance to Cornell students working in India. There are opportunities for graduate students to become associated with Cornell-sponsored research in South Asia or to carry on independent research abroad. Every effort is made by the Program staff to aid qualified students to obtain financial support for a field training or research project in one of the countries of the area.

Research interests under the South Asia Program are focused largely on recent or contemporary developmental problems of the countries of the area—on changes taking place in the economic, political, social, religious, artistic, and intellectual life of the region. A long-term research project in progress in India is primarily concerned with the ramifying problems of introducing technological changes and the influence of such changes when adopted. Since 1949 faculty and students in anthropology have carried on an extended and varied series of rural and urban community studies in several different regions of India from the Deccan into the Himalayan foothills. A major related project, the Cornell International Agricultural Development Program, which is supported by Ford Foundation funds, is concerned with the development of the entire agricultural sector of the Indian economy. With Ford Foundation support, Cornell is assisting Delhi University to become a major center in the field of linguistics. At the same time, other studies in urban renewal and regional planning, public administration, the role of government in cultural change, and recent movements in the arts and in religions and ideologies are in progress under faculty direction. Cornell is also making a special study of the Sinhalese language and of linguistic problems of Ceylon. Research is also under way on Oriya and Telugu, important regional languages of India. The new nations of South Asia present so many problems for study that the areas of inquiry open to students and staff members are limited only by availability of research means.

FELLOWSHIPS AND ASSISTANTSHIPS. Fellowship and assistantship awards are available to qualified graduate students minoring in Asian Studies with a concentration on South Asia. The South Asia Program fellowships are open to incoming graduate students with South Asia interests and should be applied for by writing to: Director, South Asia Program, 221 Morrill Hall. These fellowships are normally given to provide supplementary support for student research projects, at Cornell or in the field. Students in the South Asia Program are also eligible for assistantships in their major discipline departments, for fellowships and scholarships offered by the Cornell Graduate School, for National Defense Foreign Language Fellowships, and for Foreign Area Training Fellowships. Additional information on financial aid may be obtained by writing to the director, at the address given above.

Southeast Asia Program

FACULTY: Benedict R. Anderson, Arch T. Dotson, John M. Echols, Frank H. Golay, Alexander B. Griswold, Robert B. Jones, Jr., George McT. Kahin, Stanley J. O'Connor, Robert A. Polson, Robert M. Quinn, Lauriston Sharp, James T. Siegel, John U. Wolff, O. W. Wolters.

The Southeast Asia Program possesses substantial facilities for study and research on the graduate level and provides exceptional opportunities for general or specialized work on all of Southeast Asia in various disciplines of the humanities, social sciences, and some natural sciences, as well as in interdisciplinary area seminars. Instruction in the major languages of the area is an integral part of the graduate training of the Southeast Asia Program. Much basic and pioneering research remains to be done in this area, and the Southeast Asia Program is organized and equipped to help meet such needs.

Special intensive instruction in Southeast Asian languages is available during summer sessions. Entering graduate students intending to study one of these languages are encouraged to begin such study during the summer preceding registration in the Graduate School. Inquiries should be made as early as possible to the director of the Southeast Asia Program.

Southeast Asia Program fellowships are available on a competitive basis to graduate students. They carry stipends of up to \$3,200 plus tuition and General Fee, and are available only to qualified candidates for advanced degrees at Cornell. Competition for these awards is open to citizens of the United States or Canada, nationals of Southeast Asian countries, and, in exceptional cases, nationals of other countries.

The fellowships are available to applicants who are able to demonstrate a serious scholarly interest in Southeast Asian studies; who show the greatest promise of becoming qualified regional experts with specialization in a relevant discipline of the humanities, social sciences, or certain natural sciences; and who are admitted to the Cornell Graduate School for advanced work in such a discipline. Previous experience in Southeast Asia or in the study of that area is not necessarily required. It is important that the applicant be able to show that advanced work in a major subject offered at Cornell, combined with work in the Southeast Asia Program, will make his future professional activities more effective; this requirement is particularly important for a student in the natural sciences.

Fellowships are normally awarded for one academic year. If the student's work during the first year has been of high caliber, reappointment is sometimes possible. In such cases, formal reapplication is expected from the student. The primary purpose of these awards is to encourage graduate students to acquire a substantial knowledge of Southeast Asia while majoring in one of the discipline Fields of the Graduate School. Accordingly, they are usually offered only to students who take a minor in Asian Studies and participate fully in the Southeast Asia Program. The recipient of a fellowship may be asked to devote up to six hours a week under faculty supervision to work connected with the Program.

London-Cornell Studentships are available for advanced Ph.D. candidates in the social sciences and the humanities who have already had at least one year of resident study in the Southeast Asia Program. These fellowships are tenable for study during an academic year at the School of Economics and Political Science or the School of Oriental and African Studies in the University of London. Stipends range up to \$3,000 plus air fares and tuition and fees. London-Cornell Field Research Grants are open to Southeast Asia Program Ph.D. candidates in the social sciences and humanities after they have had appropriate training at Cornell, or at Cornell and London. They are tenable for up to twenty-two months for the purpose of dissertation research in any part of Southeast Asia. Stipends range up to \$12,000 for twenty-two months including travel and research expenses.

Cornell-Philippines Field Research Fellowships are available, under a grant from the Rockefeller Foundation, for advanced graduate students who plan to write dissertations in the social sciences or the humanities, based upon field research in the Philippines. Fellowship support is for ten to fifteen months in the Philippines and includes living costs, local transport, and round-trip transportation from the United States for the graduate student and dependent wife or husband.

National Defense Foreign Language Fellowships, Title VI, are offered by the United States Office of Education for study during the academic year, the summer, or both. Application should be made to Sage Graduate Center, Cornell University. Information about Foreign Area Training Fellowships, administered by the Social Science Research Council, may be obtained by writing to the Foreign Area Fellowships Program, 444 Madison Avenue, New York, New York 10022. Graduate students may also apply for other fellowships, teaching fellowships, assistantships, and scholarships offered by the University and its departments.

Additional information on the Program and the various fellowships and awards may be obtained by writing to the Director, Southeast Asia Program, 108 Franklin Hall.

Soviet Studies

COMMITTEE ON SOVIET STUDIES: George Gibian, chairman; Urie Bronfenbrenner, M. Gardner Clark, Walter Galenson, Richard Leed, Walter Pintner, Myron Rush, George Staller.

OTHER FACULTY MEMBERS IN SOVIET STUDIES: Patricia Carden, Frederick Foos, Antonia Glasse, Boris Glasse, Augusta Jaryc, Alla Novosilzova, Hugh Olmstead, Marla Wykoff.

The University offers a number of courses and seminars on the Soviet Union as well as pre-1917 Russia. Instead of a separate area program, graduate students have a choice of majors and minors in the established Fields of the Graduate School. Some of the subjects focus on area specialization: Russian history, Russian literature, Slavic linguistics. Other subjects combine area specialization with a nonarea framework: comparative government, economic planning, regional planning, social psychology.

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Graduate students pursuing Soviet Studies in any of these subjects are expected to attain proficiency in the Russian language either before entering the Graduate School or soon thereafter.

The University's academic activities related to Russia are coordinated by the Committee on Soviet Studies. The Committee also sponsors a colloquium for faculty members and graduate students in Soviet Studies. In the Soviet Studies Graduate Study in the John M. Olin Library, major reference works and key current periodicals from and about the U.S.S.R. are brought together.

The Committee on Soviet Studies selects a limited number of graduate students each year as research assistants. The Russian section of the Division of Modern Languages and the Department of Russian Literature also appoint several graduate students annually as teaching fellows in the Russian language. For other teaching fellowships, fellowships and scholarships, students apply directly to the Graduate School or to the department concerned. NDEA Title IV and Title VI Fellowships are available in various subjects.

A list of faculty specialization follows: *Economics*: M. Gardner Clark, Walter Galenson, George J. Staller; *History*: Walter M. Pintner; *Languages and Linguistics*: Frederick Foos, Boris Glasse, Richard Leed, Augusta Jaryc, Alla Novosilzova, Hugh Olmstead, Marla Wykoff; *Literature*: Patricia Carden, George Gibian, Antonia Glasse, Hugh Olmsted; *Political Science*: Myron Rush; *Psychology*: Urie Bronfenbrenner.

Inquiries about fellowships and other aspects of Soviet Studies should be addressed to Professor George Gibian, Chairman, Committee on Soviet Studies, Goldwin Smith Hall.

Other Programs and Studies

American Studies

COMMITTEE ON AMERICAN STUDIES: S. Cushing Strout, chairman; Archie R. Ammons, LeGrace G. Benson, Jonathan P. Bishop, Douglas F. Dowd, Robert H. Elias, Robert T. Farrell, Heywood Fleisig, Paul W. Gates, Rose K. Goldsen, Andrew Hacker, Baxter L. Hathaway, Richard I. Hofferbert, Michael G. Kammen, Michael Kaufman, Walter LaFeber, Thomas W. Leavitt, John E. Martin, James H. Matlack, Dan E. McCall, James R. McConkey, Andrew J. Milnor, Arthur M. Mizener, Richard Polenber, Albert S. Roe, Joel H. Silbey, Walter J. Slatoff, James M. Smith, Fred Somkin, Gordon F. Streib, Robin M. Williams, Jr.

Although there is no formal program leading to a degree in American Studies, candidates for the doctorate in English and history will find ample opportunity to do interdisciplinary work in conjunction with a major in American Studies within their field. There are members of the staff in both fields who are professionally trained and currently active in the study of the interrelationships of American intellectual, literary, and social history, so that a student concentrating in American literature or American history may take advantage of the freedom permitted by Graduate School regulations and, in collaboration with his Special Committee, readily build an individual doctoral program that systematically embraces more than a single discipline. Inquiries concerning

opportunities in this area should be addressed to: Professor S. Cushing Strout, Chairman, American Studies Committee, Goldwin Smith Hall.

Brookhaven National Laboratory

Cornell is one of nine eastern universities participating in Associated Universities, Inc. (AUI). Operating under contract with the Atomic Energy Commission, this corporation has the responsibility for the management of Brookhaven National Laboratory. The Laboratory provides unusual research facilities for studies in biology, chemistry, applied mathematics, medicine, physics, high energy particle physics, and reactor and nuclear engineering.

Graduate students may participate in research at Brookhaven by association with Cornell staff members who are engaged in research at the Laboratory. Members of a variety of science departments at Cornell are currently involved in programs at Brookhaven. The Laboratory also offers temporary summer appointments to a limited number of selected graduate and undergraduate students in science or engineering.

Center for Environmental Quality Management

The Center for Environmental Quality Management brings together the faculties of the Cornell Medical College in New York and the various colleges and schools in Ithaca to study the manifold questions of environmental health in both urban and rural settings.

Current approaches to the modification and control of the environment, in concentrating on limited objectives such as air quality control, disease control, water quality control, pest control, food sanitation, and occupational health have had limited success since they have been unable to take into account the interdependence of environmental health problems. The character and the urgency of the total environmental quality problem facing us appears insoluble short of an overall approach that will enable decision makers to consider simultaneously the significant variables and relationships relevant to the management of environmental quality.

Scientific management through systems analysis has begun to make it possible to consider these multiple relationships within the framework of common objectives and subject to predetermined constraints. It provides mechanisms by which various innovations can be examined in terms of their short- and long-term effects upon the environment. Such an approach provides rational bases for establishing environmental quality goals and for the allocation of scarce resources to achieve these goals.

The Center is frequently able to provide predoctoral and postdoctoral fellowships for students interested in pursuing research topics in environmental health. For information regarding specific programs, write to: Professor Walter R. Lynn, Director, Center for Environmental Quality Management, 302 Hollister Hall.

Center for Urban Development Research

The purpose of the Center for Urban Development Research is to enable the University to expand its research, training, and service in the field of urban

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problems. It is intended to provide a continuing forum for questions pertaining to urban development; encourage new combinations of interdisciplinary problem-centered research; encourage and cooperate with interdisciplinary educational developments; provide for participation by faculty, staff, and students on an interdisciplinary basis in urban studies; assure integration and dissemination of the results of research.

The Center supersedes the Center for Housing and Environmental Studies. The acting director of the Center is Professor Barclay G. Jones, 109 West Sibley Hall.

Center for Radiophysics and Space Research

The Center for Radiophysics and Space Research unites research and graduate education carried on by several academic departments in the space sciences. It furnishes administrative support and provides facilities for faculty members and graduate assistants who are engaged in space research activities, and it offers opportunity for graduate students to undertake thesis work leading to the degrees of Master of Science and Doctor of Philosophy. A student's major professor can be chosen from the following Fields in the Graduate School: Aerospace Engineering, Applied Physics, Astronomy and Space Sciences, Chemistry, Electrical Engineering, Physics.

Thesis research in the following areas is now possible:

(a) *Astronomy and astrophysics.* Astronomical aspects of cosmic rays, gamma-radiation, x rays, neutrinos; cosmology; experimental studies and theory relating to the surface of the moon and the planets; processes in the interstellar gas; solar-system magnetohydrodynamics; stellar statistics; theory of stellar structure, stellar evolution, nuclear processes in stars.

(b) *Atmospheric and ionospheric radio investigations.* Dynamics of the atmosphere; incoherent electron scattering; study of refraction, scattering, attenuation due to the inhomogeneous nature of the troposphere and ionosphere; theory and observation of propagation of radio waves in ionized media such as the ionosphere.

(c) *Radar and radio astronomy.* Distribution and classification of radio sources; radar investigations of the moon and planets; solar radio observations; studies of gaseous nebulae.

(d) *Space vehicle instrumentation.* Instrumentation relating to lunar exploration; magnetic field measurements; tenuous gas and particle flux measurements; infrared observations from rockets.

The facilities of the Center include the lunar surface and electronics laboratory on the Cornell campus, the radio astronomy and ionospheric laboratories close to Ithaca, and the Arecibo Observatory in Puerto Rico. At Arecibo an extremely sensitive radio telescope and an unusually powerful space radar are available for use by qualified graduate students. In addition, certain facilities of Sydney University, Australia, are available through the Cornell-Sydney University Astronomy Center (see p. 43).

Center for Research in Education

The Center for Research in Education provides an instructional focus within the University for the interests of faculty members from different disciplines in educational research and development. In addition, the Center attempts to stimulate investigation of socially significant educational problems and to train students in educational research. At present, research projects in adult-child interaction and cognitive socialization, in language development and literacy, in science education, and in early school learning are under way. Research programs in mathematics education and in undergraduate education are being planned.

The Center provides predoctoral and postdoctoral training through research assistantships, training grants, and postdoctoral fellowships. For information write to Professor Alfred L. Baldwin, Director, Center for Research in Education, Rand Hall.

Cornell-Sydney University Astronomy Center

The Center is an interuniversity organization designed to create a larger pool of facilities and skills for research in astronomy and related fields than would be separately available to either university. Graduate students can be interchanged between the two institutions whenever appropriate for the research work in which they are engaged. Both universities recognize research supervision extended by the sister university, and the time spent by a student on thesis work in the sister university can be accepted toward residence requirements with the proviso that the approval of the home research supervisor is given and also that the home university bylaws are not contravened.

The facilities available through the Center, in addition to those of Cornell's Center for Radiophysics and Space Research, are the one-mile by one-mile Mills Cross situated at Hoskintown, New South Wales; the stellar intensity interferometer situated at Narrabri, New South Wales; the Criss-Cross, the Shain Cross, and Mills Cross situated at Fleurs, New South Wales; the Wills Plasma Physics Department, the Basser Computing Department, the Falkner Nuclear Department, and the facilities of the cosmic ray group at the University of Sydney. The Center includes H. Messel, R. Hanbury Brown, W. N. Christiansen, C. B. A. McCusker, and B. Y. Mills from the University of Sydney faculty.

Further information can be obtained from Professor T. Gold, Joint Director, Cornell-Sydney University Astronomy Center, Space Sciences Building, Cornell University.

Developmental Studies

Specializations in this area normally involves participation in a program jointly sponsored by the Fields of Human Development and Family Studies, and Psychology. The program presently emphasizes cognitive development. Students interested in the program should apply to either the Field of Human Development and Family Studies or the Field of Psychology. Training in research skills in both Fields is recommended. Students admitted to the program fulfill the requirements of whichever Field they enter. Current research interests of the faculty include development of language, perception,

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thinking, intellectual development in natural settings, conceptual and affective behavior in infancy, cognitive socialization, and biological maturation. For further information see the description of the Field of Psychology and the Field of Human Development and Family Studies, or write to either Field Representative.

Division of Biological Sciences

The Division of Biological Sciences was established in 1964 to bring together into a single administrative unit a number of investigators and teachers representing a broad spectrum of interests in basic biology. Its members hold appointments in one or more of four schools and colleges but serve the University as a whole through the Division. The Division is responsible for all the undergraduate teaching of biology, including the establishment of requirements for the major in its various branches. It also has the primary responsibility for the promotion of research in basic biology, and its members, as part of the Graduate School Faculty, teach in appropriate Fields. At present the following subject areas are represented by separate sections of the Division: biochemistry and molecular biology; ecology and systematics; genetics, development, and physiology; microbiology; and neurobiology and behavior. A number of graduate fellowships, teaching fellowships, research assistantships, and traineeships are available through the Division. For further information, write to Professor Richard O'Brien, 201 Roberts Hall.

Materials Science Center

The Materials Science Center (MSC) at Cornell is an interdisciplinary laboratory created to promote research and graduate student training in all phases of the science of materials. The subjects of study represented in the MSC program are applied physics, chemistry, electrical engineering, materials engineering, materials science, mechanics, metallurgy, and physics.

The extent of the benefits a graduate student may derive from the MSC program depends on the actual research he pursues. If the student chooses to follow the more conventional course of becoming a specialist in one specific area, the MSC program could help him by providing new equipment, financial assistance through research assistantships, or, in some cases, the help of a technician to carry out routine measurements.

If the student wishes to follow a program of considerably more breadth than usual in his research training, the MSC program provides an additional advantage. Several central facilities have been set up where more specialized apparatus such as crystal-growing furnaces, high-pressure equipment, x-ray and metallography equipment, electron microscopes, etc., are available to all MSC members and their students. In addition to the equipment, expert advice on its use and the interpretation of the results will be available. In these central facilities, it is expected that the student will come in contact with students from other disciplines, resulting in a mutually profitable interaction.

The office of the Director of the Materials Science Center, Professor R. E. Hughes, is in Room 627, Clark Hall.

Plasma Physics

Established in 1966, the Laboratory for Plasma Studies at Cornell enables students and faculty members to deal with plasma, electron, and laser physics on a unique, interdisciplinary basis. In the future, plasmas will provide power for cities, will power spacecraft, will help to explain the composition of the universe, and may unlock the energy resources of the sea. Nothing less than an integrated scientific and technological approach to these and other vital areas of plasma research is feasible.

The unified, interdisciplinary approach to plasma studies has added a new dimension to education at Cornell, enabling the University to give the best counsel to graduate students who want to combine their knowledge of some field of science or engineering with work in plasma studies. A program now exists whereby graduate study in plasma physics is offered to students in aerospace engineering, applied physics, chemistry, electrical engineering, mechanical engineering, and physics.

Graduate research assistantships are available through the Cornell Laboratory for Plasma Studies as well as from several departments within the University. It is also possible to obtain positions as postdoctoral research associates with the Laboratory. Prospective graduate students should also consider applying for fellowships awarded on a national basis by the Atomic Energy Commission and the National Science Foundation. The deadlines for these programs are usually in the fall for the following academic year. For further information, write to Professor Peter L. Auer, Director, Laboratory for Plasma Studies, Upson Hall.

Program on Science, Technology, and Society

F. A. Long, director; R. Bowers, deputy director; R. A. Rettig, executive secretary. Steering Committee: P. Bereano, U. Bronfenbrenner, M. Drosdoff, G. Gordon, E. Heitowit, G. Likens, W. Lynn, R. Morison, M. Nelkin, C. Stern, G. Winter

The purpose of the interdisciplinary Program on Science, Technology, and Society is to stimulate teaching and research on the interaction of science and technology with contemporary society. The Program is initiating a number of new research and teaching efforts and also plays a role in providing coherence and support to activities in this area which are already proceeding at the University.

The topics of concern to the Program are illustrated by the following examples: science, technology, and national defense; world population and food resources; legal and moral implications of modern biology and medicine; national policy for the development of science; sociology of science; the ecological impact of developing technology.

The mechanisms for studying these problems will vary and will probably include courses, seminars, short workshops, and summer studies as well as individual research programs. The Program welcomes the participation of students and faculty from all colleges and schools. A list of relevant courses in all parts of the University may be obtained from the Program office, Clark Hall.

Society for the Humanities

Henry Guerlac, director. Fellows (1970-71): Darrell Jackson (Queens College), Philosophy; Paul Schwaber (Wesleyan University), Literature; Hayden White (University of California, Los Angeles), History; Joseph Kerman (University of California, Berkeley), Music; Bojan Bujic (University of Reading, England), Music; Edward Morris and Thomas Hill (Cornell University), Romance Literature and English Literature.

The Society awards three categories of fellowships for research in the humanities: Senior Visiting Fellowships, Faculty Fellowships, and Junior Postdoctoral Fellowships. The Fellows offer, in line with their research, informal seminars intended to be off the beaten track. Details about these seminars are circulated to interested departments.

Membership in the Society's seminars is open, upon written application, to graduate students and suitably qualified undergraduates. All seminars are held in the Society's house at 308 Wait Avenue. Only those officially enrolled, or specifically invited to attend, are admitted as visitors.

A student wishing to attend any of these seminars should write to the Secretary of the Society, 308 Wait Avenue, Ithaca, New York 14850, giving his name, address, telephone number, and a brief summary of his qualifications.

Statistics Center

The methods of statistics find important applications in many diverse fields of research. It is therefore necessary that (1) subject matter specialists be able to obtain assistance in using or developing statistical theory, (2) students who intend to do research work in a particular field which makes extensive use of statistical methods receive adequate training in statistics, and (3) individuals be trained as statisticians.

The staff members of the various schools and colleges of Cornell University who are interested in the development and application of statistical methods are associated with the Cornell Statistics Center. A major responsibility of the Center is to provide a focal point to which individuals, projects, and departments may come to receive assistance and guidance with respect to the statistical aspects of research and training programs.

The acting director of the Center is Professor Philip J. McCarthy, Ives Hall.

Center for Water Resources and Marine Sciences

The Center is an interdisciplinary organization serving the entire University at the graduate study and research level. Its purpose is to promote and coordinate a comprehensive program in water resources planning, development, and management that includes the sciences, engineering, agriculture, law, economics, government, regional planning, and public health.

Its responsibilities are to undertake and support water resources research in engineering, in the physical, biological, and social sciences, and in the humanities; to encourage and contribute to graduate studies in water resources; to coordinate research and training activities in water resources; to encourage new combinations of disciplines in research and training which

can be brought to bear on water resource problems; to disseminate the results of research; and to develop and operate central facilities which may be needed to serve participants in research and training.

Correspondence concerning the Center should be directed to Professor L. B. Dworsky, Director, Center for Water Resources and Marine Sciences, Hollister Hall.

Correspondence related to graduate study in the Field of Water Resources should be directed to the Field Representative, Professor C. D. Gates, Hollister Hall.

Special Facilities and Service Organizations

Military Science, Naval Science, and Aerospace Studies

(ROTC, NROTC, and AFROTC)

The advanced course in military science (Army ROTC), naval science (Naval ROTC), and aerospace studies (Air Force ROTC) is open to graduate students who have satisfactorily completed a basic course in ROTC or who enroll in a two-year ROTC program. Successful completion of a two-year advanced ROTC course will qualify a graduate student for appointment as a second lieutenant in the United States Army, Air Force, or Marine Corps Reserve; or ensign in the United States Naval Reserve; or as second lieutenant in the Regular Army or Air Force. Interested graduate students should consult the *Announcement of Officer Education* and apply to Professor of Military Science, Professor of Naval Science, or Professor of Aerospace Studies (ROTC), Barton Hall.

New York State Agricultural Experiment Station at Geneva

The New York State Agricultural Experiment Station was established in 1880 to promote agriculture through scientific investigations and experimentation. It is located at Geneva, fifty miles from Ithaca, and has been under the administration of Cornell University since 1923.

Professors on the Geneva staff are eligible to serve as members of the Special Committees of graduate students along with professors on the Ithaca campus of the University. Normally the graduate training provided at Geneva consists of research experience and supervision of the student's work on a thesis problem. The formal course work of the student's training program is given on the Ithaca campus. Student who plan to do part of their graduate work at Geneva should correspond with their major advisers or with the dean of the Graduate School concerning regulations as to residence, Special Committees, etc.

The Station is equipped to care for graduate students in certain specific lines of research, viz., chemistry, economic entomology, food technology, microbiology, plant pathology, pomology, seed investigations, and vegetable crops. Ample facilities are available for graduate research under laboratory, greenhouse, pilot plant, insectary, orchard, and other field conditions.

Certain phases of the investigations now being conducted at the Station

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and other problems for which the facilities of the Station are suitable may be used as thesis problems by graduate students.

The director is Professor D. W. Barton, who may be addressed at the New York State Agricultural Experiment Station, Geneva, New York 14456.

Office of Computer Services

The principal computing facility at Cornell is an IBM 360 Model 65 located at Langmuir Laboratory at the Cornell Research Park. The system is equipped for remote access of several kinds, and the operating system is designed so that very few users find it necessary to visit Langmuir. The primary terminals are high-speed reader-printers located in Upson, Clark, and Warren Halls. While these are remote job-entry and delivery devices rather than conversational terminals, they permit convenient access, job turnaround-time in terms of minutes, and the use of on-line files. Each of these terminals is the core of a small computing center, with auxiliary equipment, consulting assistance, reference material, and work space. In addition to these high-speed terminals, teletypewriter terminals are available to individual projects that require interactive capability. This computing system is busy but not saturated, and use by graduate students is encouraged.

The University has one IBM 1800 computer, which is located in the Wilson Synchrotron Laboratory.

The Office of Computer Services is responsible for the operation of this system and for the provision of consulting and programming assistance. The Office cooperates with the Department of Computer Science in providing courses in programming and computing techniques. The Department of Computer Science employs a limited number of graduate students on assistantships for this work.

For further information write to the Office of Computer Services, Langmuir Laboratory.

University Press

Cornell University Press, founded by Andrew D. White in 1869, was the first university press in America and is among the leaders in number of volumes published annually. The Press publishes scholarly books on nearly every academic subject, serious nonfiction of general interest, and advanced or experimental textbooks for universities. The imprint of Comstock Publishing Associates, a division of the Press, is placed on certain books in the biological sciences. The Press also publishes a paperbound series, Cornell Paperbacks. More than twenty percent of the books published by the Press in recent years were written by members of the Cornell University faculty. All printing for the Press is done under contract by various book manufacturing firms; the Press has no production facilities of its own.

Visual Aids

The University owns and operates the Photo Science Studios, which create, or cooperate in the creation of, photographic studies and visual aids of all kinds.

The extension services of the New York State Colleges, which form integral parts of the University, disseminate knowledge through an intensive program of publication, photography, and recording supervised by professional staffs. Materials produced by graduate students may find outlets through these channels.

Other Research Units

Some other research units allied with the University, either as wholly owned and operated divisions or as wholly or partially autonomous organizations with which the University has a working agreement, are the Sloan-Kettering Cancer Research Institute in New York City, through the Graduate School of Medical Sciences, and the Veterinary Virus Research Institute in Ithaca.

Cornell is also one of fourteen founding members of the University Corporation for Atmospheric Research which, under National Science Foundation support, operates the National Center for Atmospheric Research at Boulder, Colorado. In addition to Brookhaven National Laboratory, Cornell, as a member of Associated Universities, Inc., has access to the facilities of the National Radio Astronomy Observatory in Greenbank, West Virginia.

Further opportunities for formal study, field work, and independent research by Cornell graduate students are available in many institutions, laboratories, and libraries both in the United States and in other countries. For example, the Cornell-Harvard Archaeological Exploration at Sardis, Turkey, and the Museum of Northern Arizona at Flagstaff, Arizona, both provide opportunities for field research related to doctoral work of Cornell graduate students. Information on that kind of arrangement is available directly from the Field Representatives.

Fields of Instruction

Architecture

Faculty

Ludlow D. Brown, Theodore M. Brown, Robert G. Calkins, Thomas W. Canfield, Ralph W. Crump, Donald P. Greenberg, Michael Hugo Brunt, Stephen W. Jacobs, Barclay G. Jones, Alexander Kira, Alfred Koetter, Kermit C. Parsons, Charles W. Pearman, John W. Reps, Colin Rowe, Francis W. Saul, Werner Seligmann, John P. Shaw, Roger Sherwood, David M. Simons, Stuart W. Stein, Oswald M. Ungers, Peter von Meiss, Jerry A. Wells

Acting Field Representative

Stephen W. Jacobs, 114 West Sibley Hall

MAJOR AND MINOR SUBJECTS

Architectural Science

Urban Design

Graduate study in the Field of Architecture may be pursued in urban design, leading to the degree of Master of Architecture, or in architectural science, leading to the degree of Master of Science. Study in architectural history is offered in the Field of History of Architecture and Urban Development (see p. 73). Every applicant for graduate study is expected to select and identify in advance the program he intends to follow.

Foreign students whose undergraduate training has been completed outside the United States are admitted to provisional candidacy for the first semester, during which their qualifications to continue in their selected programs will be evaluated. In most cases, they should plan to spend at least four terms in residence for the Master's degree.

URBAN DESIGN. Students who have satisfactorily completed a five-year course in architecture at an approved institution, or its equivalent, may be admitted as candidates for the degree of Master of Architecture in the professional program of urban design.

Urban design is concerned with solving, by way of an integrated approach and in architectural terms, the problems posed by city and regional planning. The program of study includes an exposure to such course material from architecture and planning as will equip the student with an adequate conceptual framework for practice, and is particularly concerned with the three-dimensional definition of the urban environment in terms which give significance to the individual.

The program of study, cooperatively worked out between the faculties in the Fields of Architecture and City and Regional Planning, permits special treatment for the individual student. Normally, four semesters of study are

required, and the student should not anticipate completing his studies in less than this time, though in certain special circumstances the requirements for a degree may be completed within a three-semester period. It is possible in individual cases, by specific arrangement in advance, to complete the requirements for both the Master of Architecture and Master of Regional Planning degrees in three years.

ARCHITECTURAL SCIENCE. Qualified students enrolled in the Graduate School in programs leading to the degree of Master of Science may elect architectural science as either a major or a minor subject, and those enrolled in programs leading to the degree of Doctor of Philosophy may elect it as a minor subject.

Students with undergraduate degrees in architecture, architectural engineering, or the various branches of engineering are likely candidates for this program. The program as it is organized is extremely flexible and can be arranged to meet the specific needs and desires of the individual student and to build on his prior technical preparation and competence. For those students who are applying with a straight engineering background, exposure to architectural disciplines would be included in the program of study.

The objectives of the graduate program in architectural science follow.

1. To afford an opportunity for students of architecture to expand their creative design potential by increasing their knowledge and understanding of the technologies in the building process.

2. To provide a framework within which students graduating in related technical disciplines (for example, civil, electrical, or mechanical engineering) can explore building science and technology related specifically to architecture. This training prepares students with such background to join the ranks of consultants well versed in the architectural implications of contemporary science.

This graduate program in architectural science started in the fall of 1967 and is an outgrowth of the program in architectural structures which began at Cornell in 1962. It attempts to broaden the scientific base of specialized graduate architectural education. The program includes work in acoustics, illumination, mechanical systems, materials technology, etc., but presently concentrates on architectural structures, industrialized housing, and computer applications in architecture.

A candidate for the Master of Science degree with a major in architectural science must satisfy the following requirements: (a) completion of the program of study prescribed by the student's Special Committee; (b) a minimum of two terms of residence; (c) presentation of a satisfactory thesis; and (d) passing of a final comprehensive examination.

Ordinarily more than two terms of residence will be required to complete the program of study, depending on the student's background and experience as they relate to his needs and interests. A portion of the student's program will consist of formal course work. Courses offered by the College of Architecture, Art, and Planning are shown below. In addition, a student may select courses offered elsewhere in the University, such as courses in civil engineering, engineering mechanics, mechanical engineering, electrical engineering, physics, computer science, housing and design, mathematics, etc.

Facilities include a well-equipped structural model laboratory and immediate access to the Cornell computing center (IBM 360).

Faculty Interests

Ludlow D. Brown: architectural structure, limit design, ultimate stress theories, strategy of prestress as applied to buildings.

Theodore M. Brown: nineteenth- and twentieth-century architecture and art.

Robert G. Calkins: medieval and Renaissance architecture and art.

Thomas W. Canfield: architectural technology, design.

Ralph W. Crump: environmental controls.

Donald P. Greenberg: architectural technology, structural analysis and design, suspension structures, computer graphics, model analysis.

Michael Hugo-Brunt: history of architecture, landscape architecture, city planning, development of colonial towns, development of Georgian London and maritime settlements.

Stephen W. Jacobs: American architecture; preservation programs; eighteenth-, nineteenth-, and twentieth-century European architecture. Associate Director of the Cornell-Harvard Expedition to Sardinia, Turkey.

Barclay G. Jones: city and regional planning, socioeconomic and aesthetic aspects of architectural preservation.

Alexander Kira: human engineering and psychological aspects of architecture.

Alfred Koetter: urban design, housing.

Kermit C. Parsons: urban design, land use, institutional planning, history of collegiate architecture.

Charles W. Pearman: urban design, housing systems.

John W. Reps: planning administration, history of city planning in the United States and Europe, development of urban America, design character of American cities.

Collin Rowe: history of Renaissance and modern architecture; urban design, architectural criticism, contemporary European and American architecture.

Francis W. Saul: structural steel and reinforced concrete building design, structural plastics and blast-resistant design.

Werner Seligmann: urban design.

John P. Shaw: urban design.

Roger Sherwood: urban design.

David M. Simons: urban design, planning of educational architecture.

Stuart W. Stein: urban design, site planning, urban renewal, housing.

Oswald M. Ungers: housing, urban design.

Peter von Meiss: industrialized building.

Jerry A. Wells: urban design, housing.

Courses

Urban Design

In addition to the core courses listed below, the student will also take a substantial number of courses in city and regional planning (see the *Announcement of the Graduate School: Social Sciences*). He may also take courses in related areas such as architectural history, architectural science, the psychology of perception, sociology, government, etc.

190-191 Problems in Urban Design.

Throughout the year. Credit as assigned.

The basic first-year design course for graduate students in urban design. Instruction consists of individual criticism over the drafting board.

192-193 Problems in Urban Design.

Throughout the year. Credit as assigned. Continuation of 190-191.

Architectural Science

221 Advanced Steel Building Design. Fall term. Credit three hours. Prerequisite: 204 and permission of the instructor. Mr. Saul.

Design and investigation of advanced systems of steel building structure, including plastic design of continuous beams and rigid frames, composite steel beam and concrete slab construction, steel space forms.

222 Reinforced Concrete Building Systems.

Fall term. Credit three hours. Prerequisite: 204 and permission of the instructor. Staff.

Review of methods and specifications for the design and construction of reinforced

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concrete building systems. Two-way framing systems. Precast concrete construction. Discussion of ultimate strength and yield line theories. Quality control of reinforced concrete. Exploration of new techniques in concrete construction. Selected topics.

223 Building Substructure. Spring term. Credit three hours. Prerequisite: 204 and permission of the instructor. Mr. Saul.

The principles of soil mechanics, sub-surface exploration, and design of building foundations. Footings, piles, subgrade walls.

224 Prestressed Building Structures. Spring term. Credit three hours. Prerequisite: 204 and permission of the instructor. Mr. L. D. Brown.

The application of prestress as a fundamental strategy. Design of prestressed steel and concrete building elements.

233 Surface Structures. Spring term. Credit three hours. Prerequisite: permission of the instructor. Mr. Greenberg.

The qualitative and quantitative analysis and design of thin shell architectural structures, including shells of revolution, cylindrical shells, hypars, and folded plates. Suspension structures. The architectural implications and problems of curvilinear forms. Construction techniques.

240 Special Problems in Architectural Science. Either term. Registration and credit by arrangement. Staff.

250 Ultimate Strength Theory. Fall term. Credit three hours. Prerequisite: 204 and permission of the instructor. Mr. L. D. Brown.

A survey of flexural theory beyond the elastic range and the principles of limit design relationships applied to continuous steel and reinforced concrete construction.

260 Computer Applications in Architecture. Fall term. Credit three hours. Mr. Greenberg.

Designed to acquaint the student with the current uses and potentials of electronic computers in the architectural profession. No prior knowledge of computers is assumed. Topics will include basic principles and logic of computing systems, computer programming (CUPL and FORTRAN), archi-

tectural planning models, examples of linear programming problems, computer graphics, and data processing.

270 Industrialized Building. Fall term. Credit three hours. Prerequisite: permission of the instructor. Mr. von Meiss.

Concepts of industrialized building and organizational patterns of the building process; productivity and standardization. Architectural implications of methods of production and assembly, subsystem coordination, interface and tolerances. The quality concept, performance specification, and system evaluation.

271 Seminar in Industrialized Building. Spring term. Credit three hours. Prerequisite: 270 and permission of the instructor. Mr. von Meiss and other staff members.

In-depth study of a particular topic related to those dealt with in 270.

280 Architectural Science Laboratory. Either term. Credit four to six hours. Staff.

Projects, exercises, and research in the architectural sciences.

290 Thesis or Research in Architectural Science. Either term. Credit as arranged. Staff.

640 Environmental Control Systems. Fall term. Credit three hours. Mr. Crump.

A study of the influences of environment on the design of buildings and urban development. Lectures and problems involving the relation and integration of environmental phenomena and psychophysical factors in the design of control systems.

650-651 Behavioral Science in Design. Throughout the year. Credit three hours. Permission of the instructor required. Mr. Trieschmann.

Theoretical and methodological aspects of behavioral science which relate to physical design. Development of techniques for gaining behavioral awareness on an empirical level. The students will consider various methods of behavioral data collection using direct observation, photography, pattern recognition, and combinations of these methods.

Art

Faculty

John E. Bosson, Jr., Victor E. Colby, Norman D. Daly, Kenneth W. Evett, James O. Mahoney, Gillian Pederson-Krag, Jeffrey E. Poklen, Stephen Poleskie, Jason Seley, Arnold Singer, Jack L. Squier

Visiting Critics

Friedel Dzubas, David Von Schlegell

Field Representative

Jason Seley, 109 Franklin Hall

MAJOR AND MINOR SUBJECTS

Graphic Arts
Painting
Sculpture

The degree offered in this Field is the Master of Fine Arts. The Field does not offer the degrees of Master of Arts and Doctor of Philosophy.

Graduate courses in the practice of painting, sculpture, graphic arts, and art education are offered in the Department of Art in the College of Architecture, Art, and Planning. (See also the *Announcement of the College of Architecture, Art, and Planning.*)

As major subjects, painting, sculpture, and graphic arts lead to the Master of Fine Arts degree. As minor subjects they may be elected by Master of Arts candidates in other Fields, with the consent of the chairmen of their Special Committees and by arrangement with the Department of Art.

ADMISSION. Students who hold Bachelor's degrees and have clearly demonstrated professional promise in art may be admitted as candidates for the M.F.A. degree in any one of three programs described below: painting, sculpture, or graphic arts.

THE M.F.A. PROGRAM. The course of study requires four terms of residence and is intended for those who wish to complete their education as artists. Candidates must complete fifteen credit hours of courses in the history of art, taken either as graduate or undergraduate students. Students in the Field are eligible for courses in any area of study offered at the University; courses in writing, cinema, stagecraft, and music are available, as well as those in the usual academic subjects such as the history of art, philosophy, and anthropology. Students are required to take at least twelve hours of academic work outside the Department of Art during their four terms in residence.

The faculty is composed of practicing artists who teach rather than teachers who practice art. The entire resident faculty and the visiting critics are available to give criticism to graduate students.

The buildings in which the programs are housed are open twenty-four hours a day; they are adjacent to the Fine Arts Library (61,000 volumes) and not far from the University's Andrew Dickson White Museum of Art.

PAINTING. The program in painting is intended for those who are competent to do independent work of high quality. At the end of his third term the candidate is required to present a one-man exhibition of work done while in residence. The principal effort of the fourth term is a thesis painting which is designed to demonstrate creative ability and technical proficiency. Graduate painting

is under the direction of Professors Dzubas and Seley. Students work in separate studios in Franklin Hall, a five-story building occupied by the Department of Art.

SCULPTURE. The graduate student in sculpture will design his own work program leading to a one-man show at the end of the third semester. Graduate sculpture is under the direction of Professors Colby, Seley, and Squier. The sculpture program has its own building, a 45- by 180-foot converted foundry with 14-foot ceilings. Complete gas and arc welding facilities; heavy-duty grinders, drill press, and band saw; and a variety of portable power tools are provided for the graduate students, as well as separate studios.

GRAPHIC ARTS. Graduate students in this program study the various graphic techniques, including relief, intaglio, lithography, and various photographic processes. Experiment and tradition, theory, history, and practice are part of the program, including the relation between image and typography, idea and communication. Graduate graphic arts is under the direction of Professors Singer and Poleskie. A full range of graphic arts facilities is available in the program's quarters in Franklin Hall, including etching presses, lithographic presses, proof presses, and a type shop.

Courses

390 Graduate Painting. Either term. Credit as assigned. May be repeated for credit.

The core studio course for the first three terms of graduate study in painting.

392 Graduate Printmaking. Either term. Credit as assigned. May be repeated for credit.

The core studio course for the first three terms of graduate study in the graphic arts.

393 Graduate Sculpture. Either term. Credit as assigned. May be repeated for credit.

The core studio course for the first three terms of graduate study in sculpture.

396 Graduate Thesis. Either term. Credit as assigned.

For graduate students in their last term in the programs in painting, sculpture, and graphics.

398 Seminar in Art Criticism. Either term. Credit two hours a term first year. Three terms required of M.F.A. candidates. Third term, when term theme is written, carries four hours credit. May be repeated for credit. Prerequisite: permission of the instructor.

A study of critical opinions, historical and modern, and their relation to problems in the theory of art.

Chinese Literature

Faculty

Nicholas C. Bodman, Chuen-tang Chow,
John McCoy, Harold Shadick, Etsuko
Terasaki

Field Representative

Chuen-tang Chow, 103 Franklin Hall

MAJOR SUBJECT

Chinese Literature

MINOR SUBJECTS

Chinese Literature
East Asian Linguistics

ADMISSION REQUIREMENTS. At least two years of Chinese language study are required prior to admission. Preference is given to applicants who have taken several undergraduate courses in English or European literature. Candidates for the Ph.D. degree whose undergraduate education was in a Chinese university are normally expected to have taken a degree in English or in a European literature before admission.

It is recommended that applicants submit Graduate Record Examinations Aptitude Test scores.

LANGUAGE REQUIREMENTS. A reading knowledge of Japanese is essential for students of Chinese literature. Candidates for the M.A. degree are required to pass an examination in Japanese. Candidates for the Ph.D. degree are required to pass an additional examination in Japanese at a higher level. A reading knowledge of at least one European language is highly desirable.

FIELD REQUIREMENTS. A qualifying examination is given during the second semester of the first year to assess the student's capacity and help him in planning a program of study. The admission to Ph.D. candidacy examination tests general knowledge of the whole development of Chinese literature and more specialized knowledge of selected genres, periods, and major authors.

The candidate for the M.A. degree is expected to take five semester courses and write a thesis. An examination on the thesis is required for both the M.A. and the Ph.D. degrees.

Recommended as minor subjects are: East Asian linguistics, medieval Chinese history, Oriental art, or a subject in English or European literature.

FELLOWSHIPS. In addition to fellowships awarded by the Graduate School, the candidate for the Ph.D. degree in Chinese literature is eligible for many of the fellowships

listed under the China Program, some of which provide for a year of study in East Asia.

Courses

313 Chinese Historical and Philosophical Texts. Fall term. Credit four hours. Prerequisite: 302 or 312 or consent of the instructor. Mr. Chow.

Selections from the standard histories, the classical philosophers, and early modern reformers.

402 History of the Chinese Language. Either term. Credit four hours. Prerequisite: consent of the instructor. Mr. Bodman.

403 Linguistic Structure of Chinese. Either term. Credit four hours. Prerequisite: consent of the instructor. Mr. Bodman.

411-412 Advanced Readings in Modern Chinese. Throughout the year. Credit four hours a term. Prerequisite: 302. Mr. McCoy.

414 Classical Chinese Prose. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Shadick.

416 Classical Chinese Poetry. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Chow.

417 Chinese Poetic Drama. Fall term. Credit four hours. Prerequisite: consent of the instructor. Mr. Shadick.

420 Readings in the Traditional Chinese Novel. Either spring or fall term, according to demand. Credit two or four hours. Prerequisite: consent of the instructor. Mr. McCoy.

421-422 Directed Reading. Credit two to four hours a term. Prerequisite: consent of the instructor. Staff.

501 Introduction to Literary Research. Fall term. Credit four hours. Offered every other year. Mr. Chow.

521-522 Advanced Readings in Classical Chinese. Throughout the year. Credit two to four hours a term. May be taken on an individual tutorial basis and may be repeated for credit. Prerequisite: consent of the instructor. Mr. Chow.

571 Seminar in Chinese Literature. Either term. Credit three hours. May be repeated for credit. Staff.

Japanese 405-406 Advanced Readings in Japanese. Throughout the year. Credit four hours a term. Prerequisite: Japanese 302 or consent of the instructor. Mrs. Terasaki.

Topics will be selected on the basis of student needs.

Linguistics 581-582 Sino-Tibetan Linguistics. Throughout the year. Credit four hours a term. Prerequisite: Linguistics 201-202 or Chinese 402-403 and consent of the instructor. Mr. Bodman.

Descriptive and comparative studies of Chinese dialects and Tibeto-Burman languages.

The Classics

Faculty

James Hutton, Gordon M. Kirkwood, Gordon M. Messing, Pietro Pucci, Edward W. Spofford, Frederick O. Waage

Field Representative

Gordon M. Messing, 127 Goldwin Smith Hall

MAJOR SUBJECTS

Ancient Philosophy
Classical Archaeology
Greek Language and Literature
Latin Language and Literature
Medieval and Renaissance Latin Literature

MINOR SUBJECTS

Ancient History
Classical Rhetoric in the Original or Translation
Classics (when the major is in another Field)
Indo-European Linguistics

ADMISSION. Applications for admission to graduate study in the Field of Classics must include scores from the Graduate Record Examinations.

M.A. DEGREE REQUIREMENTS. At the beginning of the first semester, the candidate for the M.A. degree chooses a major and a minor subject and applies to two members of the faculty to represent these subjects. These persons constitute the candidate's Special Committee, the one representing the major subject being his principal adviser or chairman. In early consultation with his Committee, the student should ascertain whether his knowledge of the subject (primarily his knowledge of the principal Greek and Latin authors) will, in regular course, qualify him to take the final oral examination, or whether he should undertake further supplementary work.

In order to qualify for the M.A. degree, the candidate with adequate undergraduate training is ordinarily expected to spend two semesters at Cornell, attending the seminars for which he is prepared; to present a special essay (approximately thirty pages), which may be an enlarged seminar paper; to pass a written test in translation from Greek and Latin authors at the end of the first semester; and to pass a general oral examination at the end of the second semester. Within these

two semesters, and as early as possible, he must also demonstrate proficiency in French or German.

The final oral examination is based partly on the classical authors and partly on the special essay, and is conducted by the candidate's Committee. This examination may also serve as the qualifying examination for the Ph.D. degree, in which case it will be attended by a third faculty member, who will subsequently serve on the candidate's Ph.D. committee.

PH D. DEGREE REQUIREMENTS. The candidate for the Ph.D. degree chooses a Special Committee formed of three professors in the Field. This Committee will advise him both in the choice of his courses and in his work for the dissertation. A good deal of latitude is granted the Committee in helping the candidate to formulate a program best fitted to his own needs.

It is expected that the candidate will devote a very substantial part of his first four semesters to completing official reading lists of Greek and Latin authors. Some seminars, other course work, and teaching will normally be undertaken simultaneously, but the main emphasis will be on the reading lists. The candidate will take the admission to candidacy examination between the fifth and sixth semesters, at which time he will be responsible for an extensive knowledge of the authors included on the reading lists. During the fifth and sixth semesters, if not earlier, the candidate will be enrolled in those seminars which he has chosen in consultation with his Committee. At the end of the sixth semester, or earlier if possible, the candidate will choose a subject for his doctoral dissertation, work on which will occupy the next two semesters. Summer work may be included if he likes. Minor subjects may be chosen from Fields other than Classics. The candidate is also expected to demonstrate proficiency in a second modern language.

Course work for graduate students in classics is conducted mainly in small seminars, the object of which is training in the methods, the principles, and the performance of independent research and criticism. As far as possible, therefore, the work is put into the hands of the students themselves.

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Every candidate will be expected to teach for two semesters, usually in the second year or later. The semesters are not necessarily consecutive.

Since candidates may apply for support during the four summers, a candidate will be able to plan with his Special Committee for work during the summer.

ANCIENT PHILOSOPHY. The Department of Classics, in cooperation with the Department of Philosophy, offers a program leading to the Ph.D. in the Field of Classics with ancient philosophy as the major subject. The Department of Philosophy offers a corresponding program to graduate students in philosophy. The aim of the program is to meet the demand for experts in ancient philosophy who have been trained in both philosophy and the classics. Students entering the program in Classics will be asked to present evidence of promise in philosophy. Their course of study will include, along with other work in Classics, two courses in Plato (one in the Department of Classics, one in the Department of Philosophy), two courses in Aristotle (similarly divided), and at least two further courses in the Department of Philosophy. The Special Committee will include at least one member of the Department of Philosophy.

CLASSICAL ARCHAEOLOGY. Graduate students who choose archaeology as a major subject are advised to select Greek and Latin as minor subjects. Archaeology may also be chosen as a minor subject, complementing studies in the Classics. Previous training in archaeology, at either the undergraduate or graduate level, is not prerequisite.

Formal courses within the Department of Classics include introduction to classical archaeology, preclassical Greece, and the archaeology of classical Greece. Students may supplement these by courses in archaeology offered by other departments and by independent study undertaken in consultation with members of the Department of Classics. It is expected that graduate students interested in archaeology will from time to time have the opportunity to participate in excavations during the summer.

FINANCIAL AID. Several departmental awards are available to incoming students in the Field of Classics:

The Florence May Smith Fellowships, with a stipend of \$2,000 plus tuition and General Fee, are granted especially to students in the Field of Classics.

Two Classical Scholarships carrying tuition and General Fee are available.

Several NDEA Fellowships are granted to incoming students.

The income of the Charles Edwin Bennett Fund for Research in the Classical Languages is used each year in the way best suited to promote the object for which the fund was established.

Special Interests of the Faculty

James Hutton, Kappa Alpha Professor of Classics: Greek anthology, Greek and Latin epic, Renaissance humanism.

Gordon M. Kirkwood, Professor of Classics: Greek and Roman theatre, Greek lyric poetry.

Gordon M. Messing, Associate Professor of Classics: classical and Indo-European linguistics.

Pietro Pucci, Associate Professor of Classics: text history, Greek drama.

Edward W. Spofford, Assistant Professor of Classics: Latin literature, elegy, epic poets.

Frederick Waage, Professor of History of Art: numismatics and ceramics.

In related Fields, the graduate students in the Field of Classics may follow the courses of the following, among others.

Allan Bloom, Associate Professor of Government: political theory.

Alfred L. Ivry, Assistant Professor of Arabic and Hebrew Studies.

James J. John, Professor of Paleography and Medieval History: Latin paleography.

Isaac Rabinowitz, Professor of Biblical and Hebrew Studies.

CORNELL STUDIES IN CLASSICAL PHILOLOGY. In 1887 the following paragraph appeared as the Introduction to this series: "It is proposed to publish, in connection with the Classical work of Cornell University, such papers, by instructors or students, as may be thought to have an interest for workers in Classical philology elsewhere. These papers will appear at indeterminate intervals."

Since 1887, thirty-five volumes have appeared; at present all out-of-print volumes are being reprinted. The series has always taken a broad view of classical philology and has included grammatical, historical, and archaeological studies, as well as studies in classical literature and thought.

Today the series continues to publish scholarly works by members of the Department; doctoral dissertations of an appropriate nature are eligible for inclusion.

Courses

Greek

301 Herodotus and Sophocles. Fall term. Credit four hours. Prerequisite: Greek 203.

302 Greek Tragedy. Spring term. Credit four hours. Prerequisite: Greek 203.

305 Aristophanes and Attic Prose. Fall term. Credit four hours. Prerequisite: Greek 203.

306 Greek Melic, Elegiac, and Bucolic Poetry. Spring term. Credit four hours. Prerequisite: Greek 203. Mr. Kirkwood.

407 Graduate Reading Course. Fall term. Credit four hours. Primarily for graduate students. Mr. Pucci.

A reading course in a major author or genre. Subject to be determined.

408 Greek Epic: Homer and Hesiod. Spring term. Credit four hours. Primarily for graduate students.

442 Greek Philosophy. Spring term. Credit four hours. Prerequisite: two terms of Greek at the 300 level.

501-502 Independent Study for Graduate Students.

Latin

315 Roman Satire: Horace and Juvenal. Fall term. Credit four hours. Prerequisite: Latin 206.

316 Roman Epic: Virgil and Lucan. Spring term. Credit four hours. Prerequisite: 315 or equivalent.

317 Roman Historiography: Livy, Tacitus, Sallust. Fall term. Credit four hours. Prerequisite: 206.

318 Augustan Poetry. Spring term. Credit four hours. Prerequisite: 317 or equivalent.

367 Medieval Latin Literature. Fall term. Credit four hours. Prerequisite: three years of high school Latin or consent of the instructor. Mr. Messing.

415 Silver Age Literature. Fall term. Credit four hours. Prerequisite: two terms of Latin at the 300 level. Mr. Pucci.

416 The Works of Horace. Spring term. Credit four hours. Prerequisite: two terms of Latin at the 300 level. Mr. Spofford.

551-552 Independent Study for Graduate Students.

Greek and Latin Composition

Greek 409-410 Advanced Greek Composition. Throughout the year. Credit two hours a term. Prerequisite: Greek 209-210 or equivalent. Mr. Stokes.

Latin 431-432 Latin Composition: Advanced Course. Throughout the year. Credit one

hour a term. For undergraduates who have completed Latin 221-222 and for graduate students. Fall term, Mr. Hutton. Spring term, Mr. Messing.

Classical Linguistics

421-422 Historical Grammar of Greek and Latin. Throughout the year. Credit four hours a term.

423 Vulgar Latin. Fall term. Credit four hours. Prerequisite: consent of the instructor. Mr. Messing.

An introduction, via selected late Latin texts, to the popular Latin from which the Romance languages are derived.

424 Italic Dialects. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Messing.

Selected texts in Oscan and Umbrian will be studied both for their own interest and for their bearing on historical Latin and Indo-European linguistics.

425 Greek Dialects. Fall term. Credit four hours. Mr. Messing.

426 Old Latin. Spring term. Credit four hours. Mr. Messing.

Archaeology

220 Introduction to Classical Archaeology.

319 Pre-Classical Greece. Fall term. Credit four hours.

Aegean archaeology from the Neolithic period to the eighth century B.C.

320 Archaeology of Classical Greece. Spring term. Credit four hours.

Study of select monuments of ancient Greece from the eighth century to the Hellenistic period.

History of Art 313 Prehistoric Art. Fall term. Credit four hours. Mr. Waage.

The evolution and diffusion of Stone Age art and artifacts in Eurasia and Africa will be presented so as to acquaint the student at the same time with the major aspects and problems of archaeological activity in general. The time span extends from the Lower Palaeolithic period to the Metals Age civilizations of the Near East.

History of Art 314 Primitive Art: The Art of Tribal Societies. Spring term. Credit four hours. Mr. Waage.

The shaping and use of art forms to satisfy group needs in cultures where art was an indispensable element of everyday life. The lectures will cover the tribal arts of Africa; subjects for the term paper will involve also

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the primitive arts of Australia, the Pacific Islands, and North America.

History of Art 431 Greek Sculpture. Spring term. Credit four hours. Mr. Waage.

322 Arts of the Roman Empire. Spring term. Credit four hours. Mr. Waage.

The visual arts in the service of the first world state. The course starts with the Etruscan and Republican periods and ends with the conflict of styles in the Early Christian Period.

Arch 431 The Classical World. Spring term. Credit three hours.

History

History 431 The Roman Republic, 133-30 B.C. Fall term. Credit four hours. Prerequisite: History 302 or consent of the instructor.

History 432 Greek History, 500-336 B.C. Fall term. Credit four hours. Prerequisite: History 301 or consent of the instructor.

Seminars

569 Sophocles. Fall term. Credit four hours. Mr. Kirkwood.

571 Greek Epigraphy. Fall term. Credit four hours.

572 Thucydides. Spring term. Credit four hours.

576 Plato's *Theaetetus*. Fall term. Credit four hours.

579 Virgil. Fall term. Credit four hours. Mr. Hutton.

581 Horace. Fall term. Credit four hours. Mr. Pucci.

582 Roman Elegy. Spring term. Credit four hours. Mr. Spofford.

History of Art 521 Numismatics. Fall term. Credit four hours. Prerequisite: consent of the instructor. Mr. Waage.

Students will work with Greek and Roman coins from the University's collection to acquire a knowledge of their archaeological, artistic, and historical importance.

History of Art 523 Ceramics and the Techniques of Excavation. Fall term. Credit four hours. Prerequisite: consent of the instructor. Mr. Waage.

History 631-632 Seminar in Ancient History. One or two terms. Credit four hours a term.

History 635-636 Seminar in Medieval History. One or two terms. Credit four hours a term. Mr. John.

Comparative Literature

Faculty

M. H. Abrams (English), Eric A. Blackall (German), Marvin Carlson (Theatre Arts), Joseph B. Dallett (German), Herbert Dieckmann (French and Comparative Literature), Ephim G. Fogel (English), Alexander Gelley (Comparative Literature), George Gibian (Russian), David I. Grossvogel (French and Comparative Literature), William W. Holdheim (French and Comparative Literature), Robert E. Kaske (English), William A. Kennedy (Comparative Literature), Gordon M. Kirkwood (Classics), Charles S. Levy (English), Edward P. Morris (French), David Patterson (Semitic Languages), Isaac Rabinowitz (Hebrew), Edgar Rosenberg (English and Comparative Literature), Harold Shadick (Chinese)

Field Representative

Alexander Gelley, 156 Rockefeller Hall

MAJOR AND MINOR SUBJECT

Comparative Literature

The graduate program in Comparative Literature is limited to about twenty students. The applicant must be mature enough to

study in various departments and plan a field of study that combines his interests. At the time of application he should be prepared to study three literatures (one of which may be English or American) in the original language. The Field requires scores of the Graduate Record Examinations (both Aptitude and Advanced Tests), though in special circumstances this requirement may be waived. The examination must be taken no later than December.

Normally, no Master of Arts degree is offered in Comparative Literature, and all candidates are admitted directly to the Ph.D. program. However, upon the recommendation of his Committee a candidate may be granted an M.A. in Comparative Literature after the completion of his admission to candidacy examination. He may also take a Master's degree in one literature of his choice, if he so desires.

The graduate program in the Field of Comparative Literature allows specialization in almost every major area from medieval to modern studies and literary criticism and theory. Students can spend a period of time in Europe and receive full graduate credit.

Cornell fellowships may be applied to this study abroad.

The Department's formal requirements are as follows: 1) a qualifying examination during the first semester, the purpose of which is to judge the student's knowledge and aptitudes and to allow his Committee to make recommendations on the course of study to be pursued; 2) an admission to candidacy examination to be taken at the end of the second or during the third year; 3) a doctoral thesis; and 4) a final thesis examination, in accordance with the regulations of the Graduate School.

The student's course of study, culminating in the admission to candidacy examination, is very flexible and adapted to individual needs and interests. It is planned by the student together with his Committee, which consists of three faculty members whom he chooses and who agree to serve on his Committee. In principle, the candidate has the choice between two typical patterns of study.

In Pattern I, his principal concentration is in one national literature and he minors in two others. English and American cannot be counted as separate literatures for this purpose. In the major literature, the student will be responsible for topics drawn from the whole history of literature in that field; in the two minors, coverage is limited to a restricted historical period.

Pattern II is more strictly comparative. The student will still be responsible for three literatures, but the national criterion will not define the three areas of concentration. Instead, these areas will be: 1) a period or a literary movement (e.g., the Renaissance, or Romanticism); 2) a genre, or an aspect of theory (e.g., drama, theory of the novel, modern formalist criticism); 3) at least one major writer. The areas of concentration are here defined, respectively, by the historical, the systematic, and the aesthetic approach.

Combinations between these two patterns are of course possible, provided that they form a meaningful configuration; this is one matter to be worked out by the student and his Committee. The student's research can be guided by reading lists, by a concentration on selected topics, or by a combination of both, at his choice and in consultation with his Committee. If the composition of the Committee changes through circumstances beyond the candidate's control, the reading lists or series of topics, once agreed upon, will be binding on the new members of the Committee.

Courses

400 Greek and Roman Drama. Spring term. Credit four hours. Mr. Kirkwood.

A study by lecture and discussion of the evolution of forms and themes in ancient

tragedy and comedy, as exemplified by representative plays, read in translation, of Aeschylus, Sophocles, Euripides, Aristophanes, Menander, Plautus, Terence, and Seneca. Consideration is given also to the origins of tragedy and comedy, and to the ancient theatre. The main emphasis is on tragedy, with some attention to the influence of Greek tragedy and Seneca on later European tragedy.

402 Allegory and Symbolism. Spring term. Credit four hours. Mrs. Kaske.

Definitions and models drawn from the *Divine Comedy* will be related to a reading of works ranging from classical to modern, such as Prudentius' *Psychomachia*, the *Romance of the Rose*, mystical lyrics of St. John of the Cross and others, the *Faerie Queene*, *Faust Part II*, and selected works of Kafka.

404 Medieval Arthurian Literature. Spring term. Credit four hours. Mr. Wetherbee.

A survey of Arthurian literature from the twelfth to the fifteenth century. Special attention will be given to the relations of the English and French Arthurian traditions. Reading will include selections from the *Mabinogion*, the *Didot Perceval*, the Middle English alliterative *Morte Arthure*, *Sir Gawain and the Green Knight*, and works of Marie de France, Chrétien de Troyes, Chaucer, and Sir Thomas Malory.

405 The Enlightenment in Germany, France, and England. Fall term. Credit four hours. Mr. Dieckmann.

408 Ancient and Renaissance Literary Criticism. Spring term. Credit four hours. Mr. Hathaway.

A study of ancient and Renaissance poetic and rhetorical theory, with special reference to Plato, Aristotle, Horace, Quintilian, and Longinus, and to Scaliger and Castelvetro as Renaissance interpreters of the classical formulations.

413 Modern Italian Literature. Fall term. Credit four hours. Mr. Biasin.

A thematic study of such authors as Verga, Svevo, Pirandello, Tomasi di Lampedusa, Basani, Pavese, and Moravia. Readings, lectures, and discussion in English.

416 Myth and Literature. Spring term. Credit four hours. Mrs. Siegel.

Readings in mythography, literature, and criticism of the nineteenth and twentieth centuries. Emphasis will be on Yeats and Stevens.

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421 Nature and Norms in Renaissance and Baroque Literature. Fall term. Credit four hours. Mr. Kennedy.

Combining the approaches of *Geistesgeschichte* and *Stillforschung*, the course will investigate literary representations of the ethical question of whether it is better for men to live according to nature or according to norms in the following writers: Erasmus, More, Machiavelli, Montaigne, Shakespeare, Cervantes, and Grimmelshausen.

424 Italy and the Transalpine Renaissance. Spring term. Credit four hours. Mr. Kennedy.

The course will investigate literary relationships between Italy and other European countries from the fourteenth to the sixteenth centuries, with comparative emphasis on Boccaccio and Chaucer, Petrarch and Ronsard, Pulci and Rabelais, and Ariosto and Spenser.

440 Autobiography as a Literary Form. Spring term. Credit four hours. Mr. Holdheim.

The problem and development of autobiography as a literary form, illustrated by discussions on the major examples of the genre. St. Augustine, Rousseau, and Goethe will be emphasized.

442 Modern Dramatists. Spring term. Credit four hours. Mr. Carlson.

Topics to be announced. All readings in English translation.

450 The History of the Book. Spring term. Credit four hours. Enrollment limited to 15 students. Prerequisite: consent of the instructors. Messrs. Eddy, P. Kahn, Reichmann.

Morphology of letters (calligraphy and type). Abbreviations and their cultural significance. Printing and its terminology. The book as a physical object. The impact of the book on social and economic changes. The book as a work of art.

455-456 Independent Study. Throughout the year. Credit four hours. Hours and instructor by arrangement.

460 Utopias and Imaginary Voyages from the Renaissance to the Enlightenment. Spring term. Credit four hours. Mr. Dallett.

Paradisiacal, utopian, and satiric visions of human society and human solitude, with emphasis on European letters (principally fiction) between More and Voltaire, including works by Shakespeare, Bacon, Campanella, Joseph Hall, Francis Godwin, Cyrano de Bergerac, Fenelon, Marvell, Comenius, Defoe, Swift, and Holberg. Some consideration will be given to basic typological questions such as the relations between the utopia, the

arcadia, the imaginary voyage, and satire; to mythic components like the island, the forest, the city, and other worlds; and to recurrent themes like the scientific transformation and the educational stabilization of society. The historical impact of science on literature in the seventeenth and eighteenth centuries will also be examined in certain of its aspects.

465 Aspects of the Novel in the Romantic Period. Fall term. Credit four hours. Mr. Gelley.

Topic for 1971: *La Nouvelle Héloïse*. A study of the novel in the context of Rousseau's thought and a reading of selected works that reveal its impact.

469 Topics in European Fiction. Fall term. Credit four hours. Mr. Hertz.

Topic to be announced.

[470 Dostoevsky, Mann, and Gide. Spring term. Credit four hours. Mr. Holdheim. Not offered in 1971-72.]

472 Origins of the Avant-Garde. Spring term. Credit four hours. Enrollment limited to 30 students. Prerequisite: consent of the instructor. Miss Carden.

An introduction to the early avant-garde period. Discussion of such general topics as the changed attitude towards language, the role of an avant-garde criticism, the synthesis of the arts. Study of representative works by European artists and writers. Some special attention will be given to the role of Russian artists in the avant-garde movement. The course will be run as an expanded seminar, and the range of topics will be adjusted to suit class interests.

501-502 Topics in Modern Literature. Throughout the year. Primarily for graduate students in Comparative Literature. Prerequisite: reading knowledge of French or German. Fall term, Mr. Holdheim; spring term, Mr. Dieckmann.

Fall term: André Gide. Discussions in depth of the major literary and critical works of André Gide. These works will be considered as representative of modern literature and its problems, and therefore will be organized according to genre. Spring term: Eighteenth-Century Aesthetics: The Beautiful, the Ugly, and the Picturesque.

506 Thematics. Spring term. Credit four hours. Mr. Rosenberg.

Topic to be announced.

639-640 Special Topics in Medieval Studies. Throughout the year. Credit four hours. Hours to be arranged.

English Language and Literature

Faculty

M. H. Abrams, Barry B. Adams, Archie R. Ammons, Judith H. Anderson, Douglas N. Archibald, Jonathan P. Bishop, Jean F. Blackall, John D. Boyd, Morris R. Brownell, Sanford Budick, Anthony Caputi, Michael J. Colacurcio, J. Milton Cowan, Donald D. Eddy, Robert H. Elias, Scott B. Elledge, Robert T. Farrell, Daniel H. Finlay, Ephim G. Fogel, Paul A. Gottschalk, Baxter L. Hathaway, George H. Healey, Thomas D. Hill, Charles F. Hockett, Robert D. Hume, Carol V. Kaske, Robert E. Kaske, Michael W. Kaufman, Howard Kaye, Charles S. Levy, Phillip L. Marcus, James H. Matlack, William P. Matthews III, Dan E. McCall, James R. McConkey, Francis D. McConnell, H. Scott McMillin, Dorothy M. Mermin, Francis E. Mineka, Arthur M. Mizener, David Novarr, A. Reeve Parker, Stephen M. Parrish, J. Saunders Redding, Edgar Rosenberg, Joanna Russ, Daniel R. Schwarz, Sandra Siegel, Walter J. Slatoff, Bert O. States, S. Cushing Strout, Winthrop Wetherbee III

Field Representative

Charles S. Levy, 235 Goldwin Smith Hall

MAJOR AND MINOR SUBJECTS

American Literature
American Studies
Creative Writing*
Dramatic Literature
English and American Literature
English Linguistics†
English Poetry
The English Renaissance to 1660
The Nineteenth Century
Old and Middle English
Prose Fiction
The Restoration and Eighteenth Century
The Twentieth Century

ADMISSION REQUIREMENTS. An applicant for graduate study in English is required to hold an acceptable undergraduate degree and to submit a dossier of materials testifying to his record. In addition to the materials required of an applicant by the Graduate School (see p. 7 of this *Announcement*), the Department of English requires the Graduate Record Examinations scores (Aptitude and Advanced Tests), though in special circumstances this requirement may be waived. Applicants should plan to take the Examination by mid-December so that their scores will be available for consideration in early February.

Applicants may apply for admission to either the Master of Arts program, the Master of Fine Arts program in creative writing, or the doctoral program, depending on their

needs and intentions. In addition to their other credentials, applicants for admission to the M.F.A. program are required to submit samples of their writing, and are asked to send them directly to the Committee on the Creative Writing Program, Department of English.

FOREIGN LANGUAGE PROFICIENCY. The knowledge of foreign languages is relevant to any program of graduate study in English if the student is not to be confined by parochial limitations upon both the literary texts and the scholarship and criticism accessible to him. The number and choice of these languages will depend on each student's program of specialization and on the direction of his interests within that program. Some programs of doctoral study will require extensive knowledge of a single foreign language and literature; other doctoral programs will require competent reading ability in two or more foreign languages. Programs of study for the M.A. and for the M.F.A. will normally require reading ability in one foreign language. In order to make foreign language and literature a functional part of his graduate program, the student should reach agreement with his Special Committee on this matter as early as possible and plan with the Committee the course of formal or informal study that may be requisite, as well as the means by which he will demonstrate his competence in the appropriate languages—by his undergraduate record, by additional courses in foreign languages and literatures, or by translating and discussing documents related to his work in English and American literature.

RESIDENCE AND THESIS REQUIREMENTS. Each of the graduate degrees in English requires that the student spend a specified amount of time in residence. The Master of Arts requires two terms of residence; the Master of Fine Arts in creative writing, four; and the Doctor of Philosophy, six.

To receive his degree at the end of the specified period of residence, a student must present a thesis acceptable to his Special Committee in the form prescribed by the Graduate School, and he must be formally examined by his Committee. A doctoral candidate may be awarded the M.A. without presenting a thesis when he passes his admission to candidacy examination.

THE PROGRAMS. Graduate study in English at Cornell is based on a committee system: each student works out an individual program of study with the cooperation and consent of a Special Committee of his own choosing. This procedure, which eliminates uniform

*Cannot be the major for the Ph.D.

†Minor only.

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course requirements and departmental examinations, is designed to provide a close working relationship between professors and students and to encourage freedom and flexibility in the choice of a route toward the graduate degree. Such a program places special demands on the energy and adaptability of both faculty and students, and requires of each student a high degree of initiative, reflection, and responsibility.

A candidate for the M.A. is expected to complete at least six one-term courses. The thesis of a candidate majoring in creative writing will consist of original fiction or poetry. All other M.A. candidates major in English and American literature. A candidate who plans to earn the M.A. with work done solely during the summer sessions may do so in four summers, taking a seventh course in the fourth summer and also writing his thesis, which will represent an eighth course.

A candidate for the M.F.A. is expected to complete four workshop courses, and eight additional courses of which at least five should be in literature, and to present an acceptable piece of creative writing (a novel, a book of poems, a book of short stories, a full-length play, etc.) in satisfaction of the thesis requirement.

A candidate for the Ph.D. is normally expected to complete six one-term courses in his first year of work, roughly half the course work of his doctoral program. Since areas of knowledge and competence to be emphasized will vary in accordance with the individual program of study, such areas can be described here only in broad outline. It is assumed that the student and his Committee will set up a program that will be comprehensive in the sense that it escapes from provincialism both in time and in modes of literary inquiry. And no matter what his particular interests and orientation, the student will profit from some familiarity—to be achieved either by courses or by informal study—in the following areas: (1) a knowledge of authors and works which have been most influential in determining the course of English and American literature; (2) the theory and criticism of literature; (3) the relations between literature and other areas or disciplines, such as history, philosophy, psychology, sociology, religion, the arts; (4) such basic scholarly concerns as textual criticism, analytic bibliography, and problems of attribution, authentication, genre, source, and influence.

Two other areas are so basic as to be given special emphasis:

1. *Study of the English language*—Relevant to most programs of study in literature is a perspective in depth on the medium of that literature, the language. Various means are available to aid the student in acquiring such a perspective. The English Department offers

courses in Old English, the history of the English language, and grammatical analysis, as well as in the application of linguistic study to the history of English literature, to metrics, and to literary criticism. Several other departments provide courses in subjects such as descriptive linguistics, psycholinguistics, and the philosophy of language.

2. *Foreign language proficiency*, which is treated in an earlier section.

Upon entering the doctoral program, a student majors in English and American literature and normally devotes himself to the more or less broad study of the literary tradition in English. At any time after the student's first full semester of residence, but in no case later than the end of his third semester, his Committee will decide whether he is qualified to proceed toward the Ph.D. This judgment is to be a cumulative one based on course work, work with Committee members, student self-assessments, and interviews between the student and his Committee. The final decision will normally be made in conjunction with an interview or examination whose form will be arranged by the student and his Committee.

At this point, the student typically substitutes for English and American literature a major representing the subject in which he is primarily interested. He also minors in one or two subjects, either or both of which may, but need not, be chosen from among the offerings of related Fields. A student electing to major in American Studies within the Field of English will define his major to include a minor in history and will choose one minor from some non-American subject within his area of concentration. Doctoral students are examined on their major and minor subjects in the admission to candidacy examination.

As part of his professional preparation, the Field requires that every doctoral candidate acquire some teaching experience. The details of this requirement will be worked out according to the needs of individual students.

RESEARCH AND STUDY OPPORTUNITIES. Graduate work at Cornell offers the opportunity for study in a distinguished academic community with extensive resources. The books and manuscripts held by the John M. Olin Research Library, completed in 1961, place it among the foremost university libraries in the United States; its special holdings range from Dante and Petrarch collections unique in this country to a splendid and comprehensive Wordsworth collection and one of the great Joyce collections of the world. Among the staff normally available for the direction of graduate studies are the following (the listing of areas of interest and instructors is illustrative, not exhaustive—at the beginning of the year, the Department

circulates a statement summarizing the various interests of its members).

Anglo-Saxon and Medieval Studies: Robert T. Farrell, Thomas D. Hill, Robert E. Kaske, Winthrop Wetherbee III.

The Renaissance: Barry B. Adams, Judith H. Anderson, Daniel H. Finlay, Ephim G. Fogel, Paul A. Gottschalk, Baxter L. Hathaway, Carol V. Kaske, Charles S. Levy, David Novarr.

The Restoration and the Eighteenth Century: Douglas N. Archibald, Morris R. Brownell, Sanford Budick, Donald D. Eddy, Scott B. Elledge, George H. Healey, Robert D. Hume.

The Romantic Period: M. H. Abrams, Vincent A. DeLuca, Francis D. McConnell, A. Reeve Parker, Stephen M. Parrish.

The Victorian Period: Jonathan P. Bishop, John D. Boyd, Francis E. Mineka, Dorothy M. Mermin.

The Twentieth Century: Howard Kaye, Phillip L. Marcus, Dan E. McCall, Arthur M. Mizener.

American Literature: Jean F. Blackall, Michael J. Colacurcio, Robert H. Elias, James H. Matlack, J. Saunders Redding, Walter J. Slatoff, S. Cushing Strout.

The Novel: James R. McConkey, Edgar Rosenberg, Daniel R. Schwarz.

The Drama: Anthony Caputi, Michael W. Kaufman, H. Scott McMillin, Bert O. States. **Creative Writing:** Archie R. Ammons, Baxter L. Hathaway, William P. Matthews III, James R. McConkey, Joanna Russ.

In choosing minor members of his Committee, a student can of course draw upon the faculties of related Fields.

FINANCIAL AID. An applicant in English can apply for fellowship support by checking the proper box or boxes on the graduate application, but one wishing to apply for a teaching fellowship should write a brief letter to the Chairman of the Department by March 1. Only those applicants are eligible for teaching fellowships who upon taking up teaching duties will have completed at least a year of graduate work; the Chairman will consider the appointment of such an applicant once the Field has recommended him to the Graduate School for admission.

Inquiries about graduate work should be directed to the Field Representative; a procedural guide describing the program in full can be obtained upon request.

Courses

The following list of courses and seminars is assembled from the offerings of 1969-70 and 1970-71 and is intended to be illustrative. A selection of about thirty is offered each year.

500 Introduction to Advanced Research. Fall term. Credit five hours. Mr. Novarr.

A study of methods and materials relevant to the solution of problems in scholarly and critical interpretation. For candidates for the Ph.D. degree.

501 Readings in Old English. Fall term. Credit five hours. Mr. Farrell.

Elements of Old English grammar and reading in the shorter literary texts.

502 Beowulf. Spring term. Credit five hours. Prerequisite: 501. Mr. Farrell.

A reading of the poem in Old English and discussion of the literary problems which it presents.

503 Middle English. Fall term. Credit five hours. Mr. Kaske.

Reading and critical analysis of major works, excluding Chaucer and the drama.

504 Chaucer. Spring term. Credit five hours. Mr. Kaske.

Reading and critical analysis, with emphasis on *Troilus* and *Canterbury Tales*.

508 The English Language. Spring term. Credit five hours. Mr. Farrell.

A study of major problems in the history and development of language from the Old English period to the present time. Though the course will be based on a historical survey, students will be given freedom to work in areas of particular interest, whether ancient or modern. Some knowledge of Old English is very strongly advised.

510 Grammatical Analysis. Spring term. Credit five hours. Mr. Hathaway.

Study of the structures of English revealed in the transformation of the basic components of predications.

512 Medieval Drama. Spring term. Credit five hours. Mr. Adams.

Dramatic forms and traditions from the liturgical drama to the Elizabethan period.

513 Elizabethan and Jacobean Drama. Fall term. Credit five hours. Mr. McMillin.

Studies in the dramatic works of Shakespeare's contemporaries and immediate predecessors.

516 Currents of Thought in the Early Renaissance. Spring term. Credit five hours. Miss Anderson.

The awareness of history and human possibility from the age of Erasmus, Colet, and More to that of Shakespeare. Close attention to a limited series of literary and historical works of the sixteenth century, for example, More's *Richard*, the *Chronicles*, Shakespeare's *Richard III*.

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518 Studies in Elizabethan Literature. Spring term. Credit five hours. Mr. Levy.

Particular emphasis upon the shorter forms of Elizabethan verse, with some consideration of Continental influences.

520 Jonson and Dryden. Spring term. Credit five hours. Mr. Novarr.

Reading and critical analysis of selected plays, poems, and criticism.

522 Milton. Spring term. Credit five hours. Mr. Elledge.

Milton's English poems and selected prose.

523 Studies in Dramatic Form: Tragedy. Fall term. Credit five hours. Mr. Gottschalk.

A study of major theories of tragedy and their application to specific dramatic texts. Special attention will be paid in class to Aristotle, Hegel, and Nietzsche, and to Greek and Shakespearean tragedies, but students may explore further areas in their papers.

527 Eighteenth-Century Literature. Fall term. Credit five hours. Mr. Brownell.

Readings in Pope and his contemporaries, with attention to relationships between literature and the fine arts.

530 The New England Mind, 1620-1860. Spring term. Credit five hours. Mr. Colacurcio.

The major texts of Puritanism studied in relation to the literary productions of Emerson, Hawthorne, and Melville. The emphasis will be on varieties of Puritan inheritance.

531 Studies in American Literature: Melville and Hawthorne. Fall term. Credit five hours. Mr. McCall.

Discussion of major works.

533 The Intellectual Origins and Development of the Romantic Movement in America. Fall term. Credit five hours. Mr. Strout.

The intellectual and social context and genesis of American romanticism, with particular emphasis on the theme of antirationalism.

535 The Intellectual Origins of the Modern Consciousness in American Literature and Thought. Fall term. Credit five hours. Mr. Strout.

537 Studies in American Literature. Fall term. Credit five hours. Mr. Elias.

Naturalism in the United States: its social and cultural context; its European and American beginnings; its expression in the theory and practice of such writers as Hamlin Garland, Stephen Crane, Frank Norris, Theodore Dreiser, and Jack London; and its relation to the work of Henry Adams, Gertrude Stein, and Sherwood Anderson.

538 Studies in American Literature. Spring term. Credit five hours. Mr. Matlack.

A survey of personal narrative and autobiography as an American genre with study of themes and techniques in selected texts from the Puritans to the twentieth century.

549-550 Creative Writing. Throughout the year. Credit five hours a term. Fall term: Messrs. Hathaway and McConkey. Spring term: Messrs. Ammons and Slatoff.

554 Studies in English Poetry. Spring term. Credit five hours. Mr. Abrams.

Imagery and organization in a variety of narrative, descriptive, and lyric poems, from Spenser to Wallace Stevens.

562 Character and Identity in the Tragedies of Shakespeare. Spring term. Credit five hours. Mr. Fogel.

A study of how Shakespeare, in his evolution as a tragic artist, brings into ever sharper focus the problematic character of the hero and the question of his identity. The relation of such concerns to the design of the play and to Renaissance and modern philosophies of man. Special emphasis on Hamlet, Othello, Lear, Antony, and Coriolanus, with collateral study of tragic heroes in such dramatists as Chapman and Webster.

564 Dramatic Literature: Shaw and O'Neill. Spring term. Credit five hours. Mr. Caputi.

A detailed study of the plays of Bernard Shaw and Eugene O'Neill and of their backgrounds.

567 Dramatic Criticism. Fall term. Credit five hours. Mr. Caputi.

A study of the principal modes and problems of dramatic criticism. The work will consist of studying plays as well as critics, and of testing and evaluating as well as describing established lines of critical inquiry.

568 The Eighteenth Century: Samuel Johnson. Spring term. Credit five hours. Mr. Eddy.

The literature and literary criticism of Samuel Johnson, plus Boswell's *Journal of a Tour to the Hebrides* and the *Life of Samuel Johnson*.

572 The Romantic Period. Spring term. Credit five hours. Mr. Abrams.

Structure and imagery in the longer Romantic poems.

573 Romantic and Modern Writers. Fall term. Credit five hours. Mr. Parker.

Readings in such nineteenth- and twentieth-century writers as Wordsworth, Shelley, Keats, Eliot, Lawrence, and Stevens, with considera-

tion of modern responses to problems raised by the Romantics.

575 Victorian Prose. Fall term. Credit five hours. Mr. Mineka.

Major emphasis upon writers of nonfictional prose, but with some attention to the novel.

576 Victorian Poetry. Spring term. Credit five hours. Mr. Mineka.

Major emphasis upon Tennyson, Browning, and Arnold, but with some study of other Victorian poets.

582 Studies in Modern Fiction. Spring term. Credit five hours. Mr. Slatoff.

A study of "blackness" in selected fiction by both white and black authors such as Conrad, Faulkner, Wright, Ellison, and Baldwin.

583 Boston and American Literature. Fall term. Credit five hours. Mr. Bishop.

A review of some of the principal works expressive of Boston culture from the mid-nineteenth century to the present, using Martin Green's *The Problem of Boston* as starting point. Research on historical, literary, or cultural topics of individual interest will be encouraged.

584 Forms of the Novel. Spring term. Credit five hours. Mrs. Blackall.

Gothic Romance in eighteenth-, nineteenth-, and twentieth-century manifestations.

588 Voice and Tone. Spring term. Credit five hours. Mr. McConkey.

An examination of alterations in voice and tone in nineteenth- and twentieth-century fiction. Novels selected from the work of such writers as Eliot, Trollope, Forster, and Pynchon.

591 Twentieth-Century Literature: Yeats. Fall term. Credit five hours. Mr. Marcus.

This course will focus on Yeats's work from 1916-1917 to the end of his career; special attention will be given to the relationship between his art and his philosophical and political interests.

594 Studies in Twentieth-Century American Literature. Spring term. Credit five hours. Mr. Mizener.

An examination of the work of two or three representative poets of the twentieth century (such as Frost, Stevens, or Williams) and two or three representative writers of fiction (such as Faulkner, Fitzgerald, or Hemingway).

597 Literary Criticism. Fall term. Credit five hours. Mr. Boyd.

An introductory course, intended for those who have had little or no formal study of

criticism. The course will consider three general modes of theoretical criticism prominent within the English critical tradition: (1) mimetic, plot criticism: Aristotle and later Aristotelians; (2) audience-oriented, rhetorical criticism, Horace to Kenneth Burke; (3) "objective" or contextual criticism: The New Critics and their influence. Within each of these main conceptual units, the texts will be examined in rough chronological order, so that some attention can be given to historical development.

598 Master's Essay. Spring term. Members of the Department.

599 Practice Teaching. Either term. Credit nine hours. Mr. Adams.

For M.A.T. candidates in English. Students should enroll concurrently in English 488.

600 Directed Study. Either term. Credit five hours. Members of the Department.

A course, usually but not necessarily taken early in the student's graduate career, in which under the supervision of a professor he reads works which relate to his individual program of study. Or, a course in which under the supervision of a professor the student explores areas in which no appropriate seminars are offered. The subject matter may consist of a problem formulated by the student (perhaps culminating in a paper), or of background material relevant to the student's major interests, or both.

601 Group Study. Either term. Credit five hours. Members of the Department.

A course formulated by students in which they meet to consider problems or areas of mutual interest, under the sponsorship of one or more professors.

602 Advanced Old English. Spring term. Credit five hours. Mr. Hill.

Studies in Old English Christian poetry.

608 Studies in Medieval Literature. Spring term. Credit five hours. Mr. Kaske.

Advanced research in English (and other) medieval literature.

616 Studies in the Sixteenth Century: Sir Philip Sidney. Spring term. Credit five hours. Mr. Fogel.

An examination of the literary achievement of Sidney, as poet and writer of fiction, with particular reference to the two versions of the *Arcadia* and the theories embodied in *The Defence of Poesie*.

617 Studies in the Seventeenth Century: John Donne. Fall term. Credit five hours. Mr. Novarr.

An intensive examination of the scholarly and critical work pertinent to an understanding of Donne and of the late Renaissance.

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643 Augustan Literature: Pope. Fall term. Credit five hours. Mr. Brownell.

Studies in the poetry of Alexander Pope, with special consideration of Pope's interest in and debt to the fine arts.

672 Wordsworth. Spring term. Credit five hours. Mr. Parrish.

Critical and textual studies based upon the Dove Cottage manuscript archive.

675 Romantic Poetry and Romantic Criticism. Fall term. Credit five hours. Mr. Abrams.

Coleridge's *Biographia Literaria*, in the context of the major works Coleridge discusses, especially the poetry and criticism of Wordsworth.

678 Dickens. Spring term. Credit five hours. Mr. Rosenberg.

A study of the major novels. The seminar will stress Dickens' aesthetics and politics within the larger framework of Victorian thought. Some attention will be paid to Dickens' nonfictional works.

684 Studies in American Fiction. Spring term. Credit five hours. Mr. Slatoff.

The novels of William Faulkner.

698 Teaching and Research. Either term. Credit five hours. Members of the Department.

A course which combines participation (including some teaching) in a professor's undergraduate course with reading supervised by the same professor.

Germanic Studies

Faculty

Vilhjálmur T. Bjarnar, Eric A. Blackall, Lucy Collings, David Connor, Joseph B. Dallett, Herbert Deinert, Inta Ezergailis, Alexander Gelley, Sander L. Gilman, Thomas D. Hill, Randall L. Jones, Herbert L. Kufner, Pardee Lowe, Jr., Frans van Coetsem

Professor-at-Large

Elizabeth M. Wilkinson

Field Representative

Herbert L. Kufner, 136 Morrill Hall

MAJOR SUBJECTS

German Literature
Germanic Linguistics

MINOR SUBJECTS

German Literature
Germanic Linguistics
Old Norse

ADMISSION REQUIREMENTS. The normal requirements for admission are a good background in German literature and fluency in the German language; some acquaintance with Middle High German and a reading knowledge of a foreign language other than German are desirable. Applicants must submit their scores on the Graduate Record Examination Aptitude Test, though in special circumstances this requirement may be waived. For scores to be available by the time applications for fellowships are reviewed, the examination must be taken no later than December.

Both M.A. and Ph.D. degrees are granted in Germanic Studies. The Field normally prefers to admit students who intend to remain at Cornell for the doctorate.

LANGUAGE REQUIREMENTS. For the M.A. degree: proficiency in German, as determined by the entrance examination in German administered by the Department of German Literature.

For the Ph.D. degree: besides proficiency in German, proficiency in French (required of all students majoring in German Literature) or in Russian (required of all students majoring in Germanic Linguistics).

EXAMINATION REQUIREMENTS. Three examinations are required of candidates for the Ph.D. degree in Germanic Studies: (1) the qualifying examination, usually given at the end of the first year to assess the student's capacity for Ph.D. work; (2) the admission to candidacy examination, a comprehensive examination usually taken in the third year; and (3) the final examination (oral) on the candidate's thesis. Students who successfully complete the admission to candidacy examination receive the M.A. degree at that time (unless they already hold this degree). For further details see the *Guide for Graduate Students in German at Cornell University*, available from the Chairman of the Department of German Literature or the Field Representative.

FINANCIAL AID. Incoming students can qualify for Cornell fellowships, foundation awards, and for NDEA Title IV Fellowships (see p. 14). Among the special opportunities for advanced graduate study abroad are the Schurman Fellowship (available annually to a Cornell student in any field for work at the University of Heidelberg), the *Dankstipendium* given every year to a Cornell student by the German Federal Republic for a year's study in any field in West Germany, and the German

Academic Exchange Service (DAAD) Fellowship which is similarly made available annually to Cornell students. While these special awards are not restricted to those in the Field of Germanic Studies, it is they who often stand to profit the most from graduate study in the German Federal Republic.

Description of the Field

In the Field of Germanic Studies the student may concentrate in either linguistics or literature. Besides completing the requirements for his major and minor, the student is expected to devote a significant part of his work to courses of his own free choice. He can, for example, avail himself of the wide offerings at Cornell in European medieval literature and philology, including Old Norse; another approach would be an interdepartmental program in the eighteenth century (also a period in which the offerings at Cornell are unusually attractive). An interest in comparative literature, history, music, philosophy, general linguistics, anthropology, or mathematics can similarly be developed within the student's program in Germanic Studies. The doctoral program, in literature as well as linguistics, normally takes four years—two years of full-time study, one year combining apprentice teaching with study, and a final year reserved for the completion of the Ph.D. thesis. Apprentice teaching is an essential part of the program. Provision is made for study abroad, if that seems desirable. Course requirements for the Master's degree can usually be completed within one year. A Master's thesis is required only if the degree is to be a terminal one.

GERMAN LITERATURE. In consultation with his Special Committee the student works out a plan of study that, building on his knowledge of particular authors, genres, and movements, aims at familiarizing him with the whole development of German literature and giving him a first-hand acquaintance with selected major texts from the Middle High German period to the present. At the same time, the student chooses for special emphasis one of three partially overlapping periods: German literature before 1700, German literature from 1500–1832, or German literature from 1750 on. Through course work and private directed study the student also seeks to deepen his understanding of literary criticism and of the techniques and goals of scholarly research. His program culminates in the writing of the Ph.D. dissertation.

The special interests of the staff in the area of literature are as follows: medieval literature and philology: Mrs. Collings and Mr. Lowe; the late Middle Ages, the sixteenth century: Mr. Dallett and Mr. Gilman; the seventeenth century: Mr. Dallett and Mr.

Deinert; the eighteenth century, the classical age: Mr. Blackall, Mr. Connor, and Mr. Gilman; Romanticism and realism: Mr. Blackall, Mr. Deinert, and Mrs. Ezergailis; twentieth-century literature: Mr. Connor, Mr. Deinert, and Mr. Gilman; stylistics: Mr. Blackall and Mr. Dallett.

GERMANIC LINGUISTICS. The student's program should aim at ensuring his familiarity with the basic tools of research in linguistics and philology (including descriptive techniques and a good grasp of the principles of historical linguistics) and at providing him with a thorough knowledge of the structure of modern German, the contrastive analysis of German and English, the history of the German language, four of the older Germanic languages, and comparative Germanic linguistics. Reading courses are available for many aspects of study, along with seminars investigating such special topics as typology of the Germanic languages and computational research on Modern German. The faculty's wide range of scholarly concerns in the field of Germanic linguistics and philology—extending chronologically from Gothic to modern German dialects—ensures that in writing his dissertation the student can count on interested guidance, whatever the subject of his investigation.

The special interests of the staff are as follows: Mr. Bjarnar and Mr. Lowe: Old Norse; Mr. van Coetsem: Netherlandic, Frisian, Gothic, Old High German, Old Saxon, Early New High German, comparative Germanic grammar; Mr. Blackall, Mr. Kufner, and Mr. Lowe: history of the German language. Modern German grammar; Mr. Kufner: German dialects, applied linguistics, pedagogy; Mr. Jones: transformational grammar, computer-aided analysis of Modern German.

OLD NORSE. The opportunities for studying Old Norse at Cornell are exceptional. The University is especially favored with a collection of Old Norse materials (the Old Icelandic Collection) that is probably the most important of its kind in the world, and with a curator, Vilhjálmur Bjarnar, who is both a librarian and an Old Norse scholar.

LIBRARY FACILITIES. The excellent opportunities for original research in the Field of Germanic Studies are suggested by the fact that the Cornell library ranks among the seven leading university libraries in this country. The John M. Olin Research Library has rich holdings in the area of Germanic Studies, including a comprehensive representation of the relevant series and periodicals. Among its rarities are contemporary editions of many sixteenth-, seventeenth-, and eighteenth-century German authors, as well as numerous incunabula from German

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presses, and the Old Icelandic Collection mentioned above.

ACCREDITED STUDY IN EUROPE. Advanced students wishing to do research, or to supplement their training, at a European university for credit at Cornell may spend up to one year abroad.

Courses

Courses for 1971-72 will for the most part be chosen from those listed below, but with some change in topics.

401-402 History of the German Language. Throughout the year. Credit four hours a term. Given in alternate years. Prerequisite: German 204 and Linguistics 201, or consent of the instructor. Fall term: Mr. Kufner. Spring term: Mr. Lowe.

403 Linguistic Structure of German. Fall term. Credit four hours. Prerequisite: German 204 and Linguistics 201 or consent of the instructor. Mr. Jones.

A descriptive analysis of present-day German, with emphasis on its phonetics, phonemics, morphology, and syntax.

404 German for Teachers. Spring term. Credit four hours. Prerequisite: 403. Mr. Jones.

Methods of teaching the language based on a contrastive study of the structures of English and German. Extensive outside reading, reports on textbooks, discussion of various teaching aids and realia.

405-406 Introduction to Medieval Literature. Throughout the year. Credit four hours a term. Prerequisite: consent of the instructor. Mrs. Collings.

Intended for students with no previous knowledge of Middle High German; will begin with study of the Middle High German language and then proceed to the reading of selected texts.

408 Topics in Earlier German Literature: 1300-1700. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Dallett.

410 Topics in Classicism and Romanticism. Spring term. Credit four hours. Prerequisite: consent of the instructor.

412 Modern Dramatists. Spring term. Credit four hours. Mr. Connor.

413 Topics in Modern German Literature I. Fall term. Credit four hours. Prerequisite: consent of the instructor. Mrs. Ezergailis.

Topic: Hermann Hesse.

414 Topics in Modern German Literature II. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Deinert.

Topic: Franz Kafka.

415 Bibliography and Methods. Fall term. Credit four hours. Prerequisite: consent of the instructor.

417-418 The Great Moments of German Literature. Throughout the year. Credit four hours a term. Mr. Blackall.

Recommended for graduate students and undergraduates, whether majoring in German or not, who wish to acquire an overall view of the whole range of German literature from the earliest texts to the present day. The only prerequisite will be a reading knowledge of German. Two weekly lectures will aim at a characterization of the temper of a period or of the essential nature of a certain writer. A discussion period will concentrate on individual works illustrative of the topics of the lectures.

501 Introduction to Germanic Linguistics. Fall term in alternate years. Credit four hours. Mr. van Coetsem.

502 Gothic. Spring term in alternate years. Credit four hours. Mr. van Coetsem.

503-504 Old Saxon, Old High German, Old Low Franconian, Old Frisian. Throughout the year. Credit four hours a term. Given in alternate years. Prerequisite: Linguistics 201. Mr. van Coetsem.

509-510 Old Norse. Throughout the year. Credit four hours a term. Mr. Bjarnar.

The grammar and phonological history of the language will be treated, and the student will be introduced to representative selections from the literature of Old Icelandic.

511 Sagas. Fall term. Credit four hours. Prerequisite: 510 or consent of the instructor. Mr. Lowe.

512 Eddas. Spring term. Credit four hours. Prerequisite: 510 or consent of the instructor. Mr. Lowe.

513 Seminar in Old Norse Language and Literature. Fall term. Credit four hours. Mr. Lowe.

514 Skaldic Poetry. Spring term. Credit four hours. Mr. Lowe.

520 Germanic Mythology. Spring term. Credit four hours. Mrs. Collings.

521 Middle High German Literature I. Fall term. Credit four hours. Prerequisite: 405 or consent of the instructor. Mrs. Collings.

Topic: The courtly epic. Emphasis on Wolfram von Eschenbach.

522 Middle High German Literature II. Spring term. Credit four hours. Prerequisite: 405 or consent of the instructor. Mrs. Collings.

Topic: The Nibelungen legend and its literary manifestations.

523 German Literature of the Late Middle Ages. Fall term. Credit four hours. Mr. Dallett.

525 Sixteenth-Century German Literature. Fall term. Credit four hours. Mr. Dallett.

527 Seventeenth-Century German Literature. Fall term. Credit four hours. Mr. Dallett.

530 Eighteenth-Century Literature Other Than Goethe. Spring term. Credit four hours.

531 Goethe. Fall term. Credit four hours. Mr. Blackall.

533 German Romanticism. Fall term. Credit four hours. Mr. Blackall.
Topic: The early Romantics.

535 Nineteenth-Century German Literature. Fall term. Credit four hours. Mr. Deinert.
Topic: Kleist.

538 Twentieth-Century German Literature. Spring term. Credit four hours. Mrs. Ezergailis.
Topic: Thomas Mann.

540 History and Methods of Modern German Literary Criticism. Spring term. Credit four hours.

542 Hugo von Hofmannsthal. Spring term. Credit four hours. Mr. Blackall.

Comp Lit 466 The Novel in the Romantic Period.

Comp Lit 501-502 Topics in Modern Literature.

Seminars

These seminars are intended for graduate students who are beyond the first year of their graduate study. Each seminar will deal with a specific topic in more detail than is possible in the graduate courses. The topics of the seminars will vary from year to year.

651-652 Seminars in Germanic Linguistics. Throughout the year, subject to the needs of students and to the limitations of staff time. Credit four hours. Hours to be arranged. Various staff members.

Seminars will be set up in a variety of topics which may include the following: comparative Germanic linguistics, typology of the Germanic languages, primitive Nordic, runology, computational research on modern German, transformational analysis of German, German dialectology, Dutch dialectology, modern Frisian, and other topics.

653-654 Seminar in German Literature. Throughout the year. Credit four hours a term. Staff.

Usually offered as a private reading course or a small group tutorial, and offered simultaneously by several members of the staff, according to demand.

History

Faculty

Daniel Baugh, Alvin H. Bernstein, Knight Biggerstaff, David Davidson, Edward W. Fox, Paul W. Gates, Henry Guerlac, Clive Holmes, James J. John, Michael Kammen, Steven Kaplan, Helmut G. Koenigsberger, Dominick LaCapra, Walter F. LaFeber, Frederick G. Marcham, John E. Martin, Charles A. Peterson, Walter M. Pintner, Richard Polenberg, William Provine, Joel H. Silbey, Fred Somkin, Brian Tierney, Mack Walker, L. Pearce Williams, Oliver W. Wolters, David Wyatt

Field Representative

Joel H. Silbey, W. Sibley Hall

MAJOR AND MINOR SUBJECTS

American History
American Studies
Ancient History
Early Modern European History
English History

History of Science

Latin American History
Medieval Chinese History
Medieval History
Modern Chinese History
Modern European History
Russian History
Southeast Asian History

All applicants for admission to this Field must include the scores of the Graduate Record Examinations Aptitude Test with their other credentials.

Each major subject area of study within the Department formulates its own foreign language requirement.

Candidates majoring in the Field of History may take minors in other history subjects or in other Fields of the Graduate School.

For available fellowships, see p. 13.

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Courses

311-312 Science in Western Civilization. Throughout the year. Credit three hours a term. Prerequisite: one year of college science; 311 or consent of the instructor prerequisite to 312.

335 Medieval Culture, 400-1150. Spring term. Credit four hours. Prerequisite: 303-304 or consent of the instructor. Mr. John.

336 Medieval Culture, 1150-1300. Spring term. Credit four hours. Prerequisite: 303-304 or consent of the instructor. Mr. John.

341-342 Europe in the Age of the Renaissance, Reformation, and Counter-Reformation. Throughout the year. Credit four hours a term. Prerequisite: six hours in European history or consent of the instructor. Mr. Koenigsberger.

343 Europe from Louis XIV to the French Revolution, 1660-1789. Fall term. Credit four hours. Mr. Kaplan.

344 War, Trade, and Empire, 1648-1783. Spring term. Credit four hours. Mr. Baugh.
European struggles for wealth and domination overseas.

347 English Constitutional History I: to 1485. Fall term. Credit four hours. Prerequisite: 303-304, 307, or consent of the instructor. Mr. Tierney.

348 English Constitutional History II: Since 1485. Spring term. Credit four hours a term. Prerequisite: 307-308, 347, or consent of the instructor.

351 Europe in the Nineteenth Century. Fall term. Credit four hours. Prerequisite: 106 or consent of the instructor. Mr. Fox.

352 Europe in the Twentieth Century. Spring term. Credit four hours. Prerequisite: 106 or 351, or consent of the instructor. Mr. Fox.

353-354 European Intellectual and Social History in the Nineteenth and Twentieth Centuries. Throughout the year. Credit four hours a term. Either term may be taken independently and without prerequisite. Mr. LaCapra.

355-356 Modern German History. Throughout the year. Credit four hours a term. Either term may be taken independently and without prerequisite. Mr. Walker.

369-370 Science since 1850. Throughout the year. Credit four hours a term. Prerequisite: either an intense interest in the history

of modern science (see the instructor) or two years of college science; 369 is not prerequisite to 370. Mr. Williams.

371 Colonization from Antiquity until the Eighteenth Century. Fall term. Credit four hours. Mr. Kammen.

372 Europe and the Origins of American Civilization. Spring term. Credit four hours. Mr. Kammen.

373-374 The Structure of American Political History. Throughout the year. Credit four hours a term. 373 is not prerequisite to 374. Mr. Silbey.

375 The American Civil War and Reconstruction. Spring term. Credit four hours. Mr. Silbey.

History 376 and 377 below were formerly given as History 376 (1600-1820); History 377 (1820-1890); and History 378 (1890-present). Students who have taken part of this sequence should not register for History 376 or 377 if it includes part of a period for which they have already received credit.

376 American Cultural and Intellectual History, 1600-1860. Fall term. Credit four hours. No prerequisite, but some background in the history and literature of the period is desirable. Mr. Somkin.

377 American Cultural and Intellectual History, 1860-1960. Spring term. Credit four hours. Some background in the history and literature of the period is desirable; 376 is not prerequisite. Mr. Somkin.

379-380 American History, 1890-1941. Throughout the year. Credit four hours. Mr. Polenberg.

381 Recent American History, 1941 to the Present. Spring term. Credit four hours. Mr. Polenberg.

383-384 History of American Foreign Relations. Throughout the year. Credit four hours a term. Mr. LaFeber.

385 Problems in the History of the Old South, 1606-1860. Fall term. Credit four hours. Mr. Martin.

387 The South since Reconstruction, 1877-1960. Spring term. Credit four hours. Mr. Martin.

431 The Roman Republic, 133-30 B.C. Fall term. Credit four hours. Prerequisite: 302 or consent of the instructor. Mr. Bernstein.

432 Greek History, 500-336 B.C. Fall term. Credit four hours. Prerequisite: 301 or consent of the instructor. Mr. Bernstein.

433 The Roman Empire, 30 B.C.-A.D. 180. Spring term. Credit four hours. Prerequisite: 302 or consent of the instructor. Mr. Bernstein.

434 Hellenistic Age. Spring term. Credit four hours. Prerequisite: 301-302 or consent of the instructor. Mr. Bernstein.

437 Church and State during the Middle Ages. Fall term. Credit four hours. Prerequisite: 303-304 or consent of the instructor. Mr. Tierney.

438 France in the High Middle Ages. Spring term. Credit four hours. Prerequisite: 303-304 or consent of the instructor. Mr. Tierney.

442 Catherine de Medici and the French Wars of Religion. Credit four hours. Prerequisite: six hours of European history and consent of the instructor. Mr. Koenigsberger.

444 The Age of Enlightenment. Spring term. Credit four hours. Prerequisite: six hours of European history. A reading knowledge of French is recommended. Mr. Guerlac.

445 Problems in the History of Biology. Fall term. Credit four hours. Mr. Provine.

History of the evolutionary hypothesis from earliest times to the present.

446 Problems in the History of Biology. Spring term. Credit four hours. Mr. Provine.

History of developmental biology, especially the mechanism vs. vitalism controversy; and the rise of molecular biology.

449 History of England under the Tudors and Stuarts. Fall term. Credit four hours. Mr. Holmes.

450 History of England in the Nineteenth and Twentieth Centuries. Spring term. Credit four hours. Mr. Baugh.

451 The English Civil War, 1640-60. Spring term. Credit four hours. Prerequisite: 449 or consent of the instructor. Mr. Holmes.

456 German Problems in Historical Perspective. Spring term. Credit four hours. Prerequisite: 355 or 356, or consent of the instructor. Mr. Walker.

457 Enlightened Absolutism and the People. Spring term. Credit four hours. Prerequisite: 343-344 or consent of the instructor and a reading knowledge of French. Mr. Kaplan.

461 Economic and Social History of Russia. Fall term. Credit four hours. Prerequisite: 309-310 or consent of the instructor. Mr. Pintner.

462 History of Russian Foreign Relations from the Fifteenth Century. Spring term. Credit four hours. Prerequisite: 309-310 or consent of the instructor. Mr. Pintner.

467 Intellectual Currents of the Seventeenth Century. Spring term. Credit four hours. Mr. Guerlac.

470 The United States in the Middle Period, 1815-1850. Fall term. Credit four hours. Mr. Silbey.

471 Problems in American Political History. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Silbey.

473 Age of the American Revolution, 1763-1783. Fall term. Credit four hours.

474 The New Nation, 1783-1815. Spring term. Credit four hours.

475 American Historiography in the Middle Period. Fall term. Credit four hours. Mr. Somkin.

476 Problems in American Cultural History. Spring term. Credit four hours. Mr. Somkin.

478 The American Reform Impulse. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Somkin.

480 Undergraduate Seminar in Recent American History. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Polenberg.

481-482 American History: History of the West. Throughout the year. Credit four hours a term. First term not prerequisite to second. Mr. Gates.

483 Problems in the History of the South. Fall term. Credit four hours. Mr. Martin.

484 Motivations of American Foreign Policy. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. LaFeber.

485 The Rise of the Urban South, 1820-1960. Fall term. Credit four hours. Mr. Martin.

486 The Study of the South as an Approach to American History. Spring term. Credit four hours. Mr. Martin.

487 Slavery and Abolition in the Americas. Spring term. Credit four hours. Mr. Davidson.

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488 Problems in the History of Brazil. Spring term. Credit four hours. Prerequisite: 319-320 or consent of the instructor. Mr. Davidson.

489 Latin America in the Era of Independence. Fall term. Credit four hours. Prerequisite: 319 or 320 or consent of the instructor. A reading knowledge of Spanish or Portuguese is recommended. Mr. Davidson.

492 The Medieval Chinese World. Spring term. Credit four hours. Prerequisite: 323 or consent of the instructor. Mr. Peterson.

495 Southeast Asian History to the Fourteenth Century. Fall term. Credit four hours. Mr. Wolters.

496 Southeast Asian History from the Fifteenth Century. Spring term. Credit four hours. Prerequisite: 495 or consent of the instructor. Mr. Wyatt.

497 Southeast Asia in the Nineteenth Century. Fall term. Credit four hours. Prerequisite: 496 or consent of the instructor. Mr. Wyatt.

551 Evolution of the French Republic. Spring term. Credit four hours. Prerequisite: a reading knowledge of French and consent of the instructor. Mr. Fox.

553 The European Revolution, 1789-1848. Fall term. Credit four hours. Prerequisite: a reading knowledge of French and consent of the instructor. Mr. Fox.

554 The Modernization of Europe. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Fox.

593 Modernization of China. Fall term. Credit four hours. Mr. Biggerstaff.

594 Modernization of China. Spring term. Credit four hours. Prerequisite: 593. Mr. Biggerstaff.

Seminars

502 Colloquium in American History. Fall term. Credit four hours. Required of all entering graduate students in American history. Staff.

511-512 Supervised Reading. Throughout the year. Credit four hours a term. Staff.

588-589 The Historiography of Southeast Asia. Throughout the year. Credit four hours a term. Prerequisite: consent of the instructors. Messrs. Wolters and Wyatt.

591 Chinese Historiography and Source Materials. Fall term. Credit four hours. Prerequisite: consent of the instructor. Mr. Peterson.

631-632 Seminar in Ancient History. One or two terms. Credit four hours a term.

635-636 Seminar in Medieval History. One or two terms. Credit four hours a term. Mr. John.

637-638 Seminar in Medieval History. One or two terms. Credit four hours a term. Mr. Tierney.

639-640 Seminar in Latin Paleography. Throughout the year. Credit four hours a term. First term prerequisite to second. Mr. John.

641-642 The Theory and Practice of Reason of State, from Machiavelli to Richelieu. One or two terms. Credit four hours a term. Mr. Koenigsberger.

645-646 Seminar in Modern British History. Throughout the year. Credit four hours a term. Mr. Baugh.

647-648 Seminar in Tudor and Stuart History. One or two terms. Credit four hours a term. Mr. Holmes.

649-650 Seminar in the French Revolution. One or two terms. Credit four hours a term.

651-652 Seminar in Modern European History. One or two terms. Credit four hours a term. Mr. Fox.

653-654 Seminar in Modern European Intellectual and Cultural History. One or two terms. Credit four hours a term. Mr. LaCapra.

657-658 Seminar in Modern German History. One or two terms. Credit four hours a term. Mr. Walker.

661-662 Seminar in Russian History. One or two terms. Credit four hours a term. Mr. Pintner.

663-664 Seminar in the History of Biology. One or two terms. Credit four hours a term. Mr. Provine.

665-666 Seminar in the History of Early Modern Science. One or two terms. Credit four hours a term. Mr. Guerlac.

667-668 Seminar in the History of Science during the Nineteenth and Twentieth Centuries. One or two terms. Credit four hours a term. Mr. Williams.

669-670 Seminar in the History of Colonization and Colonial Development. One or two terms. Credit four hours a term. Mr. Kammen.

671-672 Seminar in Early American History. One or two terms. Credit four hours a term.

673-674 Seminar in American Political History and the Ante-Bellum Period. One or two terms. Credit four hours a term. Mr. Silbey.

675-676 Seminar in American Cultural and Intellectual History. One or two terms. Credit four hours a term. Mr. Somkin.

679-680 Seminar in Recent American History. Throughout the year. Credit four hours a term. Mr. Polenber.

681-682 Seminar in the History of the American West. Credit four hours a term.

683-684 Seminar in the History of American Foreign Relations. Throughout the year. Credit four hours a term. Mr. LaFeber.

685-686 Seminar in the History of the American South. Throughout the year. Credit four hours a term. Mr. Martin.

687-688 Seminar in Latin American History. One or two terms. Credit four hours a term. Mr. Davidson.

691-692 Seminar in Medieval Chinese History. One or two terms. Credit four hours a term. Mr. Peterson.

693-694 Seminar in Modern Chinese History. One or two terms. Credit four hours a term. Mr. Biggerstaff.

695-696 Seminar in Southeast Asian History. One or two terms. Credit four hours a term. Messrs. Wolters and Wyatt.

History of Architecture and Urban Development

Faculty

Michael Hugo-Brunt, Stephen W. Jacobs, Barclay G. Jones, Thomas W. Mackesey, Kermit C. Parsons, John W. Reps, Colin Rowe, Stuart W. Stein

Field Representative

Stephen W. Jacobs, 114 W. Sibley Hall

MAJOR AND MINOR SUBJECTS

History of Architecture

History of Urban Development

Preservation Planning (minor subject only)

ADMISSION REQUIREMENTS. Applicants are expected to hold an academic or professional Bachelor's degree from a recognized institution. Preparation should include an undergraduate program emphasizing architecture, archaeology, planning, ecology, geography, history, history of culture, art, or architecture, or appropriate experience in the field. Applicants residing in the United States during the year preceding matriculation must submit scores of the Graduate Record Examinations Aptitude Test taken within the previous two years. Applicants are urged to take the test as early as possible so the results will be available for review.

FINANCIAL AID. In addition to the general fellowships of the University, a number of research assistantship and teaching fellow-

ship awards are made by related departments.

AIMS AND OPERATIONS OF THE FIELD. Candidates may apply for the Master of Arts degree program, or for the doctoral program as candidates for the Master's degree, or for direct admission to the Ph.D. program. Applicants with previous graduate work will be considered for advanced standing or direct admission to doctoral study provided that the amount of work they have taken is equivalent to that required in the Master's program at Cornell. The Master's program is intended to qualify students for research, teaching, specialized practice, or government service. The doctoral program is intended to prepare students to make creative contributions to the field through research, teaching, policy making, and practice.

Candidates for the Master's or doctoral degree must select either History of Architecture or History of Urban Development as their major subject, and enlist a major adviser to direct their program of study. Study of one minor subject must be undertaken for the Master's degree, and two for the Ph.D. Applicants are encouraged to select minor subjects from other fields. Applicants should consult the *Announcements* of the various divisions of the Graduate School* for possible minor subjects in such fields as: *Humanities*—Architecture, The Classics, Com-

*Inquiries about Fields of the Graduate School not described in this *Announcement* should include a list of the subjects of study in which the writer is interested, so that the appropriate *Announcements* may be sent.

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parative Literature, History, History of Art and Archaeology, Medieval Studies; *Social Sciences*—Agricultural Economics, Asian Studies, Anthropology, Business and Public Administration, City and Regional Planning, Development Sociology, Economics, Government, Design and Environmental Analysis, Human Development and Family Studies, Latin American Studies, Law, Sociology, Statistics; *Biological Sciences*—Conservation, Psychology; *Physical Sciences*—Computer Science, Operations Research.

LANGUAGE REQUIREMENTS. Language requirements are determined by the candidate's Special Committee. The minimum requirement for M.A. candidates is reading proficiency in one modern language other than English; for Ph.D. candidates, reading proficiency in two languages other than English. Preferred languages are French, German, Italian, Spanish, and Russian.

EXAMINATIONS. It is recommended that students take a qualifying examination early in their program. Admission to candidacy and final thesis examinations required by the Graduate School are described on page 11 of this *Announcement*.

RESEARCH AND STUDY OPPORTUNITIES. The Department of Architecture cooperates with Harvard University in the archaeological exploration of Sardis in Turkey. The Department of City and Regional Planning conducts a program of research in urban and regional studies in cooperation with the Center for Urban Development Research (see p. 41). Research activities are closely related to and derived from faculty interests and specializations. Faculty teaching and research activities in this field are listed below.

Michael Hugo-Brunt: history of maritime, colonial, and oriental architecture and planning.

Stephen W. Jacobs: American architecture; preservation programs; eighteenth-, nineteenth-, and twentieth-century European architecture. Associate Director of the Cornell-Harvard Expedition to Sardis, Turkey.

Barclay G. Jones: historic preservation planning. Acting Director of the Center for Urban Development Research.

Thomas W. Mackesey: history of city planning and university planning.

Kermit C. Parsons: history of college and university architecture and planning.

John W. Reps: history of city planning in the United States.

Colin Rowe: history of Renaissance and modern architecture, urban design, architectural criticism, contemporary European and American architecture.

Stuart Stein: preservation planning.

Courses

General

The following courses carry both Architecture and Planning numbers, and the student may register for either.

Arch 435-Planning 704 Architecture and Planning in the Orient. Fall term. Credit three hours. Prerequisite: permission of the instructor. Mr. Hugo-Brunt.

An introduction to the evolution of architecture and urbanization in India, China, Thailand, Cambodia, and Japan.

Arch 461-Planning 601 Use of Archival Materials. Spring term. Credit three hours. Mr. Parsons.

Examination of methods of archival research in the history of architecture and urban development, using manuscripts, drawings, correspondence, and documents in the Cornell University Archives and Regional History collections.

Arch 465-Planning 644 Design and Conservation. Fall term. Credit two hours. Messrs. Jacobs and Jones.

The rationale for and methods of utilizing existing cultural and aesthetic resources in the planning and design of regions and cities.

Arch 466-Planning 645 Documentation for Preservation Planning. Spring term. Credit two hours. Mr. Jacobs, staff, and visiting lecturers.

Methods of collecting, recording, processing, and analyzing architectural and cultural survey materials.

Architectural History

The following courses carry Architecture numbers.

430 The Ancient Near East. Credit four hours. Prerequisite: 400 or permission of the instructor.

Architecture of the oldest historic civilizations associated with Western tradition, with emphasis on Egypt and Mesopotamia.

431 The Classical World. Spring term. Credit four hours. Prerequisite: 400 or permission of the instructor.

Architecture of the ancient Mediterranean civilizations, with emphasis on Greece and Rome.

432 The Early Middle Ages (History of Art 333). Spring term. Credit four hours. Prerequisite: permission of the instructor. Mr. Calkins.

Sculpture, painting, and architecture from 300 to 1050 A.D.

433 The Middle Ages (History of Art 335). Fall term. Credit four hours. Prerequisite: permission of the instructor. Mr. Calkins.

Art and architecture in Western Europe during the Romanesque era.

434 Islamic Architecture. Spring term. Credit four hours. Prerequisite: permission of the instructor.

436 The Renaissance. Spring term. Credit four hours. Prerequisite: 401 or permission of the instructor. Messrs. Otto and Rowe.

Italian architecture of the fifteenth and sixteenth centuries.

437 The Baroque. Fall term. Credit four hours. Prerequisite: 401 or permission of the instructor. Mr. Otto.

European architecture of the seventeenth and eighteenth centuries.

438 American Architecture. Spring term. Credit four hours. Prerequisite: 401 or permission of the instructor. Mr. Jacobs.

Building in the U.S. from colonial times, with emphasis on the nineteenth and twentieth centuries.

439 Modern European Architecture (History of Art 367). Fall term. Credit four hours. Prerequisite: permission of the instructor. Mr. T. M. Brown.

A survey of nineteenth- and twentieth-century architecture in Europe.

448-449 Historical Lectures in Architecture. Throughout the year. Credit one or two hours a term. Staff.

450-451 Historical Seminars in Architecture. Throughout the year. Credit two hours a term. Permission of the instructor required. Staff.

Qualified students will prepare papers discussing problems relating to design or architecture, using historical evidence as the basis.

455 Special Investigations in the History of Architecture. Either term. Hours as assigned. Permission of the instructor required. Staff.

460 Introduction to Architectural Aspects of Archaeological Field Work. Either term. Credit two hours. Mr. Jacobs.

For architects, archaeologists, and laymen. An investigation of architectural techniques used in archaeology.

469 Informal Study in the History of Architecture. Throughout the year. Hours as assigned. Permission of the instructor required. Staff.

473 Seminar in Medieval Art and Architecture (History of Art 531). Fall term. Credit

four hours. Prerequisite: Hist Art 341 or consent of the instructor. Mr. Calkins.

477 Seminar in the History of Baroque Architecture. Spring term. Credit four hours. Mr. Otto.

Historical problems in European architecture of the seventeenth and eighteenth centuries.

478 Seminar in the History of American Architecture. Fall term. Credit four hours. Prerequisite: permission of the instructor. Mr. Jacobs.

Investigation by means of reading, lectures, and reports of historical problems in architecture of the nineteenth and twentieth centuries in the United States.

479 Seminar in the History of Modern Architecture (History of Art 565). Spring term. Credit four hours. Prerequisite: permission of the instructor. Mr. T. M. Brown.

Historical problems in modern art and architecture.

489 Problems in Modern Architecture. Spring term. Credit two hours. Prerequisite: consent of the instructor. Mr. Rowe.

Planning History

The following courses carry Planning numbers.

700 History of Planning I. Fall term. Credit three hours. Prerequisite: permission of the instructor. Messrs. Mackesey and Stewart.

Historical methods and research techniques; case studies and aesthetic evaluation; the urban revolution; classical societies; medieval urbanism; the Renaissance and the baroque in Europe; colonization and North America.

701 History of Planning II. Spring term. Credit three hours. Prerequisite: permission of the instructor. Mr. Hugo-Brunt.

Introduction; the social, philanthropic, and planning movements from the eighteenth century to World War II; Industrial Revolution and technological change; reform; public health, housing, model industrialists; research techniques; planning pioneers and theorists; garden and lineal cities, high- and low-density solutions; new town theories.

702 Seminar in the History of American City Planning. Spring term. Credit two hours. Prerequisite: 700 or permission of the instructor. Mr. Reps.

705 Introduction to the History of Landscape Architecture and Design. Spring term. Credit three hours. Prerequisite: permission of the instructor. Mr. Hugo-Brunt.

76 History of Art and Archaeology

Classical landscape in the Mediterranean and the Middle East; the Islamic Byzantine tradition; medieval cityscape and the agrarian system; the Renaissance; landscape of gardens in Persia, India, China, Thailand, and Japan. The Victorians; landscape in North America; colonial landscape, the twentieth century; horticulture and techniques; landscape in contemporary planning and architecture.

707 The History of Colonial Planning. Fall term. Credit three hours. Prerequisite: 700, Arch 400, Hist 371, or special permission. Mr. Hugo-Brunt.

Colonial city planning and civic design in Africa, America, Asia, and Australasia.

709 Informal Study in the History of City Planning. Either term. Credit as assigned. Prerequisite: permission of the instructor. Staff.

642 Seminar in Urban Design. Fall term. Credit three hours. Prerequisite: Arch 105 or Planning 540 and permission of the instructor. Messrs. Parsons and Stein.

Investigation of historical and current thought on the visual aspects of cities, in-

cluding evaluation of technological and cultural influences on urban design, perception of urban form, and relationships between contemporary city planning process and visual form in cities.

Theses

Architecture 490 Thesis in Architectural History. Either term. Credit as assigned.

Independent research by candidates for the Master's degree.

Architecture 499 Dissertation in Architectural History. Either term. Credit as assigned.

Advanced independent research by candidates for the Ph.D. degree.

Planning 699 Thesis in City or Regional Planning. Either term. Credit as assigned.

Independent research by candidates for the Master's degree.

Planning 799 Dissertation in City or Regional Planning. Either term. Credit as assigned.

Advanced independent research by candidates for the Ph.D. degree.

History of Art and Archaeology

Faculty

Theodore M. Brown, Robert G. Calkins, Thomas Leavitt, Stanley J. O'Connor, Albert S. Roe, Frederick O. Waage, Martie W. Young

Visiting Professor

Alexander B. Griswold

Field Representative

Robert G. Calkins, 32 Goldwin Smith

MAJOR AND MINOR SUBJECTS

American Art
Ancient Art and Archaeology
Medieval Art
Modern Art
Oriental Art
Renaissance and Baroque Art

ADMISSION REQUIREMENTS. An undergraduate major in the Field of the History of Art is, of course, recommended; however, students who have completed with distinction majors in related fields of the humanities such as literature, philosophy, history, etc., and have had some basic course work in the history of art, should feel encouraged to apply. In certain cases, some additional advanced undergraduate course work may be recommended for first-year students to round out their previous experience. All applicants are strongly urged to take the Graduate Rec-

ord Examinations, preferably no later than December, and to see that their applications and all supporting materials are sent by February 1.

LANGUAGE REQUIREMENTS. Because proficiency in foreign languages is essential for advanced study in the History of Art, it is expected that all applicants will have begun a study of French, German, Italian, or some other foreign language appropriate to their intended programs before admission. Students must present evidence of reading proficiency in this language before advancement to the status of candidacy for the Ph.D. or M.A. degree. In some cases the Special Committee may require the student to do work in an additional language related to his special area.

TEACHING REQUIREMENTS. Each candidate for the Ph.D. degree will be required to participate in the teaching process in this Department during at least two terms of his residence at Cornell. Normally this teaching experience will take place in the student's second or third year. In preparation, the candidate will be expected to attend and observe the operation of the course during a term of the preceding year. During the student's first term as a teaching assistant, he will work under the direct supervision of a

faculty member but will be totally responsible for a class. In addition, the student will assist a faculty member in the preparations for a major lecture course.

EXAMINATIONS. The comprehensive admission to candidacy examination for the doctoral degree will be both written and oral and will test extensive knowledge of the material, bibliography, and scholarship of the major and two minor subjects. The dissertation and the oral final examination on the dissertation must be preceded by at least two terms of residence related to preparation of the thesis. For those seeking a Master of Arts degree as a terminal degree, there will be an examination, either oral or oral and written, to test general knowledge of basic areas of the discipline and more substantial and detailed familiarity with the areas of the major and minor. This examination will ordinarily come at the end of the third or fourth term of residence.

Students from other Fields who choose a minor in the History of Art and Archaeology will be assigned course work as appropriate; they will also be expected to pass an oral and written examination in the general area of the minor.

FINANCIAL AID. The Department is able to award several teaching fellowships and a graduate fellowship. Several Kress Foundation Fellowships are also available. The Franklin and Gretel Goldring Memorial Fellowship provides summer travel support in Europe for several advanced students. The Field is among those which participate in the NDEA Title IV Program. For further information on opportunities for financial aid, see p. 13.

RESEARCH AND STUDY OPPORTUNITIES. For beginning graduate students, a program of regular course work will be set up by the students' Special Committees: a letter explaining more fully the requirements and procedures of the Department will be sent to applicants accepted into the program. Graduate students normally take seminars, reading courses under members of the faculty, and 300-level offerings in the Department or in related areas. A 200-level course may be taken by graduate students for credit only if additional individual work is assigned and completed. More advanced graduate students will pursue independent study under faculty direction.

Major study facilities are provided by the collections of Olin Library, which contain resources of primary material for this Field, and of the Fine Arts Library in Sibley Hall, which provides a constantly expanding collection of holdings in art and architectural history totaling at the present time approximately 61,000 volumes. The Andrew Dickson

White Museum of Art has in its permanent collection significant study material, especially in the areas of graphic art, American art, and the art of the Far East. A program of special exhibitions is provided, and a number of major exhibitions are organized annually. Opportunities are available for graduate students to gain experience in the operations of the Museum and to assist with problems of installation, catalog preparation, etc. In addition to having occasional opportunities to visit the major collections in New York City, the graduate student in Ithaca is within reasonable distance of such important institutions as the Albright Art Gallery in Buffalo, the Memorial Art Gallery in Rochester, and the Munson-Williams-Proctor Institute in Utica. The Department of the History of Art is the repository of a study collection of photographs of works of art and of a rapidly expanding collection of approximately 90,000 slides, which is especially strong in American, modern, and Oriental art.

In certain subjects a balanced graduate program will normally entail work in various other Fields and in related area programs. In the history of architecture there is a joint program with the College of Architecture, Art, and Planning. An interdepartmental program is available in archaeology, and a pamphlet describing the various offerings will be sent on request. The Asian Studies Program also issues a publication with a full description of the facilities in the various areas of Far Eastern studies. A study archive of Chinese art is being developed within the Department of the History of Art. Students working in the area of Southeast Asian art will be able to attend a short but intensive seminar to be conducted each summer by Mr. Alexander Griswold at the Breezewood Foundation near Baltimore, Maryland, which houses an outstanding study collection of Siamese art. Other related fields, such as history, philosophy, literature, etc., provide the opportunity for strong minor programs in connection with many areas of the history of art.

The areas of specialization of the members of the graduate faculty are as follows: American art: Mr. Roe, Mr. Leavitt; ancient art and archaeology: Mr. Waage; medieval art and architecture: Mr. Calkins; modern art: Mr. Roe, Mr. Leavitt; nineteenth-century art and modern architecture: Mr. Brown; oriental art: Mr. Young (Chinese and Japanese art), Mr. O'Connor, Mr. Griswold (art of Southeast Asia and India); Renaissance and baroque art: Mr. Roe.

Courses

Students are advised to consult the *Announcement of the College of Arts and Sciences* for the courses given during the current academic year.

78 History of Art and Archaeology

- 313 Prehistoric Art.** Fall term. Credit four hours. Mr. Waage.
- 314 Primitive Art: The Art of Tribal Societies.** Spring term. Credit four hours. Mr. Waage.
- 315 Pre-Columbian Art.** Spring term. Credit four hours. Mr. Scott.
- 333 Early Medieval Art.** Spring term. Credit four hours. Mr. Calkins.
- 334 Romanesque Art.** Spring term. Credit four hours. Mr. Calkins.
- 335 Gothic Art.** Fall term. Credit four hours. Mr. Calkins.
- 336 Medieval Italian Art.** Spring term. Credit four hours. Mr. Calkins.
- 341 Flemish Art.** Spring term. Credit four hours. Mr. Calkins.
- 342 Medieval and Renaissance German Art.** Fall term. Credit four hours. Mr. Calkins.
- 343 Italian Renaissance Art of the Fifteenth Century.** Fall term. Credit four hours. Mr. Roe.
- 344 Italian Renaissance Art of the Sixteenth Century.** Spring term. Credit four hours. Mr. Roe.
- 347 Art of the Early Renaissance in Italy.** Fall term. Credit four hours. Mr. Calkins.
- 349 Italian Renaissance Architecture.** Spring term. Credit four hours. Mr. Calkins.
- 354 Dutch Painting of the Seventeenth Century.** Spring term. Credit four hours.
- 355 French Art of the Sixteenth and Seventeenth Centuries.** Fall term. Credit four hours. Mrs. Dotson.
- 356 Art of the Seventeenth and Eighteenth Centuries.** Spring term. Credit four hours. Mr. Roe.
- 357 European Art of the Eighteenth Century.** Fall term. Credit four hours. Mrs. Dotson.
- 363 Modern Painting.** Fall term. Credit four hours. Mr. Okun.
- 367 Modern European Architecture.** Fall term. Credit four hours. Mr. Brown.
- 376 Modern American Art.** Fall term. Credit four hours. Mrs. Benson.
- 380 Comparative Genres in East-West Art.** Spring term. Credit four hours. Mrs. King.
- 381 Buddhist Art in Asia.** Spring term. Credit four hours. Mr. O'Connor.
- 383 Art of China.** Fall term. Credit four hours. Mr. Young.
- 384 Art of Japan.** Spring term. Credit four hours. Mr. Young.
- 385 Chinese Painting.** Spring term. Credit four hours. Mr. Young.
- 386 Studies in Indian Art.** Fall term. Credit four hours. Mr. O'Connor.
- 392 Latin American Art.** Fall term. Credit four hours. Mr. Scott.
- 411 Techniques and Materials: Painting.** Fall term. Credit four hours. Mr. Kahn.
- 412 Techniques and Materials: Graphics.** Spring term. Credit four hours. Mr. Kahn.
- 431 Greek Sculpture.** Spring term. Credit four hours. Mr. Waage.
- 432 Arts of the Roman Empire.** Spring term. Credit four hours. Mr. Waage.
- 446 Literary Sources in the Italian Renaissance.** Spring term. Credit four hours.
- 448 Mannerism and the Early Baroque in Italy.** Spring term. Credit four hours. Mrs. Dotson.
- 458 Classic and Romantic Art.** Spring term. Credit four hours. Mrs. Dotson.
- 462 Art and Technology: 1850-1950.** Spring term. Credit four hours. Mr. Brown.
- 472 Romanticism in Painting.** Spring term. Credit four hours. Mr. Leavitt.
- 481 Masters of Japanese Prints.** Fall term. Credit four hours. Mr. Young.
- 482 Ceramic Art of Asia.** Fall term. Credit four hours. Mr. O'Connor.
- 510 Seminar in Latin American Art.** Fall term. Credit four hours. Mr. Scott.
- 531 Problems in Medieval Art and Architecture.** Spring term. Credit four hours. Mr. Calkins.
- 548 Studies in Italian Renaissance Art I.** Fall term. Credit four hours. Mr. Roe.
- 549 Studies in Italian Renaissance Art II.** Spring term. Credit four hours.
- 552 Studies in English Art.** Spring term. Credit four hours. Mr. Roe.

563 Problems in Twentieth-Century Art. Fall term. Credit four hours. Mrs. Benson.

564 Problems in Twentieth-Century Art. Fall term. Credit four hours. Mr. Brown.

565 Problems in Modern Art and Architecture. Spring term. Credit four hours. Mr. Brown.

572 Problems in American Art. Spring term. Credit four hours. Mr. Roe.

580 Problems in Asian Art. Fall term. Credit four hours. Mr. O'Connor.

584 Problems in Chinese Art. Spring term. Credit four hours. Mr. Young.

586 Studies in Chinese Painting. Spring term. Credit four hours. Mr. Young.

588 Southeast Asian Art and Archaeology. Fall term. Credit four hours. Mr. O'Connor.

591-592 Supervised Reading. Throughout the year. Credit four hours.

595 Methodology Seminar. Offered on sufficient demand. Credit four hours. Members of the Department.

Archaeology

Students who are interested in archaeology are directed especially to History of Art 313, 314, 432, and 588, all of which include archaeological material. The following specialized courses treat specific excavational material and procedures, and are therefore open only to a limited number of students who have some background in ancient history, ancient languages, anthropology, or art history.

521 Numismatics. Fall term. Credit four hours. Mr. Waage.

523 Ceramics. Fall term. Credit four hours. Mr. Waage.

Linguistics

A complete description of Cornell's linguistics program, together with a listing of courses, is given in the *Announcement of the Graduate School: Social Sciences*.

Specialization in linguistics is offered by several Fields of the Graduate School. A minor subject in English linguistics is given by the Field of English Language and Literature. Cornell also offers majors and minors in French linguistics, Italian linguistics, Ro-

mance linguistics, and Spanish linguistics; see listing following the Field of Romance Studies. The Field of Germanic Studies has majors and minors in Germanic linguistics. Majors and minors in Slavic linguistics are offered by the Field of Slavic Studies. There is a minor in Indo-European linguistics in the Field of Classics. All of these will be found in this *Announcement* under the headings for the various Fields.

Medieval Studies

Faculty

Barry B. Adams, Vilhjálmur T. Bjarnar, Maria Calderón, Robert G. Calkins, Alice M. Colby, Lucy G. Collings, Joseph B. Dallett, Robert T. Farrell, Frederick A. Foos, Robert A. Hall, Jr., Thomas D. Hill, James Hutton, Alfred L. Ivry, James J. John, Robert E. Kaske, Norman Kretzmann, Pardee Lowe, Jr., Gordon M. Messing, Isaac Rabinowitz, Brian Tierney, Frans van Coetsem, Winthrop Wetherbee III

Visiting Professors

Bojan Bujic, Malcolm R. Godden, Darrell Jackson

Field Representative

Alice M. Colby, 293 Goldwin Smith Hall

MAJOR AND MINOR SUBJECTS

Medieval Art

Medieval History

Medieval Literature: English, German, Latin, Norse, Romance, Semitic, Slavic

Medieval Philology: Germanic, Latin, Romance, Semitic, Slavic

Medieval Philosophy

The aim of this Field is to allow the student to concentrate more fully upon medieval studies and to supplement his major interest with a greater number of courses in related disciplines than is possible within the programs of other Fields which include some medieval studies as part of their province.

Though certain requirements are absolute (e.g., a reading knowledge of Latin and a course in paleography and research methods), emphasis will be on the formulation of individual programs to fit the interests and needs of particular students and on the meaningful combination of mutually relevant disciplines. All degree candidates must have one

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minor, and Ph.D. candidates may have two minors. The minor or minors may be taken in other Fields of the Graduate School, if it seems desirable. Teaching experience is required of all Ph.D. degree candidates.

There are no special requirements for admission to the Field of Medieval Studies, but a broad undergraduate major in one of the participating disciplines should ideally precede concentration in this Field at the graduate level.

All applicants, whether or not they are in need of financial assistance, are strongly urged to take the Graduate Record Examinations Aptitude Test and an appropriate Advanced Test, if such exists. These tests should be taken no later than December. In order to be eligible for all forms of financial aid, the prospective student should make every effort to file his application, together with all supporting material, by February 1.

LANGUAGE REQUIREMENTS. For the M.A. degree, proficiency in Latin and either French or German is required; for the Ph.D. degree, proficiency in Latin, French, and German.

EXAMINATION REQUIREMENTS. The admission to candidacy and final thesis examinations, required by the Graduate School, are fully described on p. 11-12 of this *Announcement*.

Further information concerning the Field of Medieval Studies is to be found in the Field's brochure, which can be obtained by writing to the Field Representative.

Courses

The following list of courses and seminars has been assembled from the offerings of 1969-70 and 1970-71 and is intended to be illustrative. The majority of them are given every year. For further information, consult the Fields of The Classics, Comparative Literature, English, Germanic Studies, History, History of Art and Archaeology, Music, Philosophy, Romance Studies, Semitic Studies, and Slavic Studies.

Arabic

317 Islamic Texts in Arabic. Mr. Ivry.

318 Arabic Geographers and Historians. Mr. Ivry.

461 Medieval Arabic Belles Lettres ('Adab). Mr. Ivry.

462 Arabic Philosophers. Mr. Ivry.

491 Seminar in Islamic Philosophical Literature. Otherwise qualified graduate students who cannot read Arabic texts may be ad-

mitted with the consent of the instructor. Mr. Ivry.

Classics

367-368 Medieval Latin Literature. Mr. Messing and Mr. Wetherbee.

423 Vulgar Latin. Mr. Messing.

Comparative Literature

333-334 Medieval Literature. Throughout the year. Credit four hours a term. Fall term, Mr. Kaske. Spring term, Miss Calderón.

Fall term: analysis and interpretation of great medieval literary works in translation. Though readings will vary somewhat from year to year, a typical program would be: *Beowulf*; *Chanson de Roland*; *Njáls saga*; a romance of Chrétien; Wolfram's *Parzival*; Gottfried's *Tristan* and/or *Sir Gawain and the Green Knight*; *Pearl*; *Piers Plowman*. Spring term: Dante.

404 Medieval Arthurian Literature. Mr. Wetherbee.

639-640 Special Topics in Medieval Studies. Staff of the medieval studies program.

English

306 The Earliest English Literature. Spring term. Credit four hours. Mr. Hill.

Cultural backgrounds, reading, and critical analysis of Anglo-Saxon poetry in translation, pagan and Christian epic, elegy, heroic legend, and other forms. Attention will be given to the relations of this literature to that of later periods.

365 Chaucer. Fall term. Credit four hours. Mr. Farrell.

Reading and critical analysis: *Troilus* and a large selection from the *Canterbury Tales*.

501 Readings in Old English. Mr. Godden.

502 Beowulf. Mr. Godden.

503 Middle English. Mr. Kaske.

504 Chaucer. Mr. Kaske.

508 The English Language. Mr. Godden.

512 Medieval Drama. Mr. Adams.

608 Studies in Medieval Literature. Mr. Kaske.

French

401-402 History of the French Language. Mr. Benoit.

447-448 Medieval Literature. Miss Colby.

540 Introduction to French Philology. Mr. Hall.

548 Medieval Seminar: *Le Roman de la Rose*. Miss Colby.

555 Historical Phonology of French. Mr. Civera.

558 Linguistic Structures of Old and Middle French. Mr. Noblitt.

Germanic Studies

401-402 History of the German Language. Mr. Kufner and Mr. Lowe.

405-406 Introduction to Medieval Literature. Mrs. Collings.

502 Gothic. Mr. van Coetsem.

503-504 Old Saxon, Old High German, Old Low Franconian, Old Frisian. Mr. van Coetsem.

509-510 Old Norse. Mr. Bjarnar.

511 Sagas. Mr. Lowe.

512 Eddas. Mr. Lowe.

521 Middle High German Literature I. Mrs. Collings.

522 Middle High German Literature II. Mrs. Collings.

Hebrew

305 Postbiblical Hebrew Prose II. Mr. Ivry.

307 Postbiblical Hebrew Poetry.

432 Medieval Hebrew Literature. Mr. Ivry.

472 Seminar in Medieval Jewish Philosophy. Otherwise qualified students who cannot read Hebrew and Arabic texts may be admitted with the consent of the instructor. Mr. Ivry.

History

303-304 Medieval History. Throughout the year. Credit three hours a term; 303 is not prerequisite to 304. Fall term: Mr. John. Spring term: Mr. Tierney.

Fall term: A survey of the main trends of political, economic, intellectual, and religious development in Europe from the fourth to the twelfth century; spring term: from the twelfth to the fifteenth century.

336 Medieval Culture, 1150-1300. Mr. John.

347 English Constitutional History I: to 1485. Mr. Tierney.

437 Church and State During the Middle Ages. Mr. Tierney.

635-636 Seminar in Medieval History. Mr. John.

637-638 Seminar in Medieval History. Mr. Tierney.

639-640 Seminar in Latin Paleography. Mr. John.

History of Art

333 Early Medieval Art. Mr. Calkins.

334 Romanesque Art. Mr. Calkins.

335 Gothic Art. Mr. Calkins.

336 Medieval Italian Art.

341 Flemish Art. Mr. Calkins.

342 Medieval and Renaissance German Art. Mr. Calkins.

531 Problems in Medieval Art and Architecture. Mr. Calkins.

Italian

343-344 Petrarch.

345-346 Dante.

435 History of the Italian Language. Mr. Hall.

545 Special Topics in *The Divine Comedy*.

Linguistics

441-442 History of the Romance Languages. Mr. Hall.

443-444 Comparative Romance Linguistics. Mr. Hall.

449 Areal Topics in Romance Linguistics. Mr. Hall.

Old Provençal is frequently the language offered.

561-562 Comparative Slavic Linguistics. Mr. Foos.

Music

683-684 Seminar in Medieval Music. Mr. Randel.

82 Music

Philosophy

303 Medieval Philosophy. Mr. Kretzmann.

580 Medieval Philosophy. Mr. Kretzmann.
Topic: Aquinas' metaphysics and natural theology.

Russian

401-402 History of the Russian Language.
Mr. Leed.

501 Old Church Slavic.

502 Old Russian.

521 Russian Literature from the Beginnings to 1700.

Spanish

401-402 History of the Spanish Language.
Mr. Lozano or Mr. Saltarelli.

Music

Faculty

William W. Austin, Malcolm Bilson, George Green, John Hsu, Karel Husa, Robert M. Palmer, Don M. Randel, Harold E. Samuel, Thomas A. Sokol, Neal Zaslaw

Professor-at-Large
Elliott Carter

Field Representative
William W. Austin, Lincoln Hall

MAJOR AND MINOR SUBJECTS

Musical Composition
Musicology
Theory of Music
Musical Performance (minor for M.F.A. only)

Musical composition, performance, and scholarship are reciprocal parts of a coherent enterprise to which studies at Cornell are devoted. The concern to coordinate them is continuous and intense. The special work within each of the three official major subjects depends on continuing experience in singing and playing, especially in ensembles. The teachers who specialize in performance are particularly interested in new music and in newly discovered old music, without neglecting the classics. Each individual student must seek his own balance of interests in accordance with his abilities and opportunities. The flexibility of the Cornell program, though it does not mean approval of mere dabbling in all branches, permits the student to develop gradually his own plans for working toward specialized excellence

413 The Epic.

440 Medieval Literature.

541 Seminar in Spanish Literature.

Society for the Humanities

417-418 Seminar on the Idea of Freedom in Christian Thought. Mr. Jackson.

424 Seminar on the Three Styles in Fourteenth-Century Music and Their Cultural Backgrounds. Mr. Bujic.

427 Seminar on Medieval Literature: Voyages to the Other World. Mr. Hill.

428 Seminar on the Other World in Medieval Romance. Mr. Hill.

and balanced breadth. The entire faculty is available to consult with him about the whole range of his interests and about his distinctive scheme of coordination.

The Ph.D. degree is conferred in musicology; the Doctor of Musical Arts degree (D.M.A.) and the Master of Fine Arts degree (M.F.A.) are awarded in composition. The M.A. degree is awarded in musicology or theory.

Ordinarily a candidate for the Ph.D. degree chooses as one of his minor subjects either composition or theory. Most candidates for the D.M.A. chose musicology and may concentrate on recent history or on theory, among many other topics. The second minor is normally outside the Field of Music; it may be inside or outside the area of the humanities.

ADMISSION REQUIREMENTS. All applicants must take the test of musical proficiency prepared by the Music Department which includes sight singing, melodic and harmonic dictation, score reading, sight reading at the piano, and questions on music history. Although the Department prefers that the test be taken at Cornell, it is also available by mail, with the use of tape recordings. The faculty, considering the student's performance in this test along with his undergraduate record and his letters of recommendation, may advise him to repair certain deficiencies. Each student admitted is expected to consult his Special Committee about the proficiency test soon after the Committee is formed. Sample copies of the test and further in-

formation may be obtained from the Office of the Music Department.

Applicants are asked also to submit scores for the Graduate Record Examinations Aptitude Test. The GRE test in music is optional. GRE scores in foreign languages or other subjects in which the student has done advanced undergraduate work will of course be considered whenever submitted.

LANGUAGE REQUIREMENTS. For the M.F.A. and D.M.A. degrees and the M.A. in theory, the minimum requirement set by the Field is a reading knowledge of French or German. German is especially important both as the native tongue of many composers influential throughout the world, and as the language of valuable writings about music not translated adequately, if at all. For the Ph.D. and M.A. in musicology, a reading knowledge of both French and German is required. The Special Committee may demand additional language requirements for reasons having to do with the student's individual program. The Field requirements may be satisfied by (a) undergraduate qualification in the Division of Modern Languages at Cornell, or (b) passing the Graduate School Foreign Language Test of the Educational Testing Services (see p. 12). These requirements must be satisfied during the first year of residence at Cornell; the further requirements of a student's Special Committee must be satisfied before scheduling the admission to candidacy examination.

EXAMINATIONS. In addition to examinations described above under Admission Requirements and Language Requirements, the following are required:

1. An admission to candidacy examination which is both written and oral. Though each Special Committee devises its own examination for the individual student, the Field provides models for the Ph.D. and the D.M.A., which are available in the Department Office.
2. A final examination. After the Special Committee has seen the completed thesis, there is an oral examination concerning it and related topics.

Special Interests of the Staff

William Austin: history of twentieth-century music, nineteenth-century music in Russia and America, philosophy of music.
 Malcolm Bilson: the fortepiano of the eighteenth and early nineteenth centuries.
 Elliott Carter: composition.
 George Green: composition, theory, viola.
 John Hsu: literature and technique of the viols and violoncello.
 Karel Husa: composition, orchestration, conducting.
 Robert Palmer: composition, general theory, theory of twentieth-century tonality.

Don Randel: medieval and Renaissance music, especially in Spain.
 Harold Samuel: bibliography, seventeenth-century music in Germany.
 Thomas Sokol: choral music, conducting, performance styles.
 Neal Zaslaw: sixteenth-century and eighteenth-century music, performance practice of wind instruments.

Also available for consultation are members of the graduate faculty in music at the State University of New York at Binghamton, including the following professors:

Sam Chianis: ethnomusicology, organology, music history.
 William Klenz: baroque music, performance practice, music aesthetics.
 Karl Korte: composition, jazz, tape music.
 Harry B. Lincoln: sixteenth-century music, computers in music research.
 William J. Mitchell: theory from the Renaissance to the present.
 Philip F. Nelson: choral music, baroque and classical periods.

FACILITIES FOR RESEARCH AND PERFORMANCE. The Music Library, a part of the University Library system, is housed in the Department of Music. It has an excellent collection of the standard research tools, including collected editions, *Denkmäler*, and periodicals. The Music Library's holdings consist of 50,000 books and scores and 13,000 records. Particularly noteworthy are the collections of opera scores from all periods, scores and recordings of twentieth-century music, and a large microfilm collection of Renaissance sources, both theoretical and musical.

The Verne S. Swan collection of about 50 musical instruments, acquired by bequest in 1969, is especially rich in old stringed instruments.

A small Challis harpsichord and clavichord are available for practice by qualified students. The Hubbard harpsichord at the Statler Auditorium is reserved for concerts. The Aeolian-Skinner organ in Sage Chapel and the Schlicker organ at Barnes Hall are the outstanding organs on the campus.

A studio for electronic music, next to the auditorium in Barnes Hall, was built in 1970. The studio of Robert A. Moog in Trumansburg is also accessible to qualified students.

Courses

In addition to the courses listed here, all undergraduate courses offered by the Music Department, including individual instruction in performance and the various performing organizations, are open to graduate students. Such courses may constitute part of a student's major or minor subject in the Field of

84 Music

Music and may be required by some Special Committees. A full list of these courses, and also occasional music courses offered in the Society for the Humanities, will be found in the *Announcement of the College of Arts and Sciences*.

551 Introduction to Twentieth-Century Music.

Fall term. Credit four hours. Mr. Green.

A detailed course in analysis of representative works by important composers in the first half of the twentieth century, including Bartók, Hindemith, Schoenberg, Stravinsky, Webern, and some American composers.

553 Analysis of Structure and Function in Tonal Music.

Fall term. Credit four hours. Mr. Palmer.

An introduction to the systematic analysis of thematic and formal structure from the phrase, sub-phrase, and motive to the movement as a whole. The concept of harmonic function is expanded to include key function, and the two levels are interrelated through a graphic representation of their profiles. Emphasis will be on the Viennese classics, but considerable attention will be given to the process of tonal expansion in the nineteenth century.

557-558 Composition.

Throughout the year. Credit four hours a term. Mr. Palmer.

Intended to acquaint the student with compositional practices in contemporary styles and to develop his creative abilities.

581-582 Introduction to Bibliography and Research.

Throughout the year. Credit four hours a term. Prerequisite: a reading knowledge of French and German and an elementary knowledge of music theory and general music history. Mr. Samuel.

The basic materials and techniques of musicological research.

583 Early Theories of Tonality.

Fall term. Credit four hours. Mr. Zaslav.

The formulations of representative theorists of modality, figured bass, and root progression will be examined for the light they shed on the emergence of tonality. The validity of theoretical statements will be tested through the analysis of contemporaneous music. Systems of tuning will be examined in relationship to the requirements of tonality.

584 Seminar in Renaissance Music.

Spring term. Credit four hours. Mr. Zaslav.

An important musical manuscript will be

transcribed and its musical, literary, and social background investigated.

585 Schoenberg, Bartók, and Stravinsky.

Fall term. Credit five hours. Prerequisite: ability to play Stravinsky's *Pieces for the Five Fingers*, and a reading knowledge of one relevant foreign language—French, German, Russian, or Hungarian. Mr. Austin.

Comparative stylistic study, through performance and analysis, of representative works of the three composers.

654 Seminar in Twentieth-Century Music.

Spring term. Credit two hours. Prerequisite: 551. Mr. Palmer.

Detailed analysis of a limited number of larger works representative of main trends in twentieth-century music. Different works are chosen each year.

681-682 Seminar in Musicology.

Throughout the year. Credit four hours a term.

683-684 Seminar in Medieval Music.

Throughout the year. Credit four hours a term. Mr. Randel.

Selected topics from the Middle Ages with special attention to the development of measured notation and to the problems of preparing scholarly editions of early music.

685-686 The Music of Heinrich Schütz.

Throughout the year. Credit four hours a term. Mr. Samuel.

A comparison of his music with contemporary and later German and Italian music, with special emphasis on *concertato* style, *basso continuo*, and musical-rhetorical figures.

687-688 Debussy to Boulez.

Throughout the year. Credit four hours a term. Prerequisite: 551 and 582 or equivalent. Mr. Austin.

Historical studies in twentieth-century music. Each student will study many works of a single composer, in relation to that composer's life and thought and especially his knowledge of other music. Composers will be chosen in accordance with the students' abilities and interests.

689-690 Liturgical Chant in the West.

Throughout the year. Credit four hours a term. Mr. Randel.

A study of selected aspects of the liturgical chant of Western Christian rites during the Middle Ages.

Philosophy

Faculty

Max Black, Russell M. Dancy, Keith S. Donnellan, Arthur Fine, Bruce Goldberg, Johan A. W. Kamp, Jaegwon Kim, Norman Kretzmann, David B. Lyons, Norman Malcolm, Sydney S. Shoemaker, Nicholas Sturgeon, Allen W. Wood

Visiting Professors

S. Kripke, R. Schultz

Professor-at-Large

Georg Henrik von Wright, University of Helsinki

Field Representative

Arthur Fine, 321 Goldwin Smith Hall

MAJOR SUBJECTS

Logic and Philosophy of Science
Metaphysics and Epistemology
History of Philosophy
Values and Conduct

MINOR SUBJECTS

Logic and Philosophy of Science
Metaphysics and Epistemology
History of Philosophy
Values and Conduct
Philosophy

THE SAGE SCHOOL. The Susan Linn Sage School of Philosophy, which comprises the Field of Philosophy in the Graduate School, was founded through the generosity of Henry W. Sage, who endowed the Susan Linn Sage Professorship and gave in addition \$200,000 to provide permanently for instruction and research in philosophy.

There are at present twelve faculty members engaged in full-time instruction and two in part-time instruction. The total number of graduate students in residence is presently fixed at thirty-four. Thus graduate students are provided with unusual opportunities for discussion and personal contact with faculty members.

The faculty of the Sage School manages and edits *The Philosophical Review*, one of the best-known philosophical journals.

ADMISSION REQUIREMENTS. The instruction offered to graduate students presupposes a background in philosophy equivalent to a Cornell undergraduate major. Those who have not had equivalent preparation are expected to make up their deficiencies in addition to the work required for an advanced degree.

The aim of the Field in graduate work is to devote its resources primarily to the instruction of students who expect to proceed to the Ph.D. degree with a major in philosophy.

It is not the normal policy of the Field to accept as graduate students those who have no intention of pursuing academic work beyond the M.A. degree. However, in certain cases, the Field will be prepared to accept as M.A. degree candidates those students who expect to continue advanced studies later, either in philosophy or in some other field, and those who, while not expecting to pursue graduate work beyond the M.A. degree, nevertheless give satisfactory evidence of a serious interest in philosophy.

THE CURRICULUM. The Field of Philosophy provides opportunity for advanced study to two classes of graduate students: those whose major interest is in some branch of philosophy; and those whose chief branch of research is in allied fields but who desire to supplement this with a minor in philosophy.

Major and minor subjects encompass the variety of research interests among the faculty, as listed in the sequel. Thus logic and philosophy of science includes philosophy of mathematics; metaphysics and epistemology includes the philosophy of history, the philosophy of language, and the philosophy of mind; history of philosophy includes, in addition to the traditional areas of study, contemporary Anglo-American philosophy and Continental philosophy; and aesthetics, ethics, the philosophy of law, political and social philosophy, and the philosophy of religion are included under values and conduct.

1. A student whose major interest is in philosophy is required (a) to gain a general knowledge of the whole subject including its history, and (b) to select some aspect or subdivision of it for intensive study and research.

2. A student having a major interest in literature or the arts, in history or social studies, or in mathematics or a branch of experimental science is permitted to choose a minor in philosophy with such emphasis as best suits his needs. For such a student the School endeavors to outline a plan of philosophical study (in courses or directed reading) which will form a natural supplement to his field of research.

A doctoral candidate is normally in residence for four years. During the first two he takes a total of twelve courses or seminars at the rate of three per semester; this period is also devoted to preparation for the admission to candidacy examination. During the second two years the student writes his thesis.

The three members of the candidate's Special Committee advise him in his choice of courses, are consulted when he writes his thesis, and are included among his examiners. A new graduate student chooses his Special

Committee in consultation with the Field Representative, but a candidate for the Ph.D. degree is required to reconstitute his Committee before beginning systematic work on his thesis. This would normally be done at the end of his third term in residence.

The meetings of the Philosophy Discussion Club are among the outstanding features of the graduate program at Cornell. Membership is limited to graduate students and faculty members in the Field of Philosophy, undergraduate Honors candidates, and others by invitation. Every fortnight the Club meets to hear a paper from one of its members or a visiting scholar. The papers are short, and ample time is provided for discussion. A number of distinguished philosophers visit the Club every year.

LANGUAGE REQUIREMENTS. There are no Field-wide foreign language requirements for M.A. or Ph.D. candidates. It is expected that a student's Special Committee will require competence in those areas, including foreign languages, which are germane to his education in philosophy and to his preparation for the pursuit of philosophical scholarship.

EXAMINATIONS. (1) If there is doubt whether a student should continue study for the Ph.D. degree after his first semester, he will be given an examination early in the second semester, based on the written work done in his first semester and on any other materials he wishes taken into account. The same criterion is used to determine whether a terminal M.A. degree candidate shall proceed to the writing of an M.A. essay.

(2) The admission to candidacy examination is an oral examination (normally taken in the fifth term of residence) that must be taken within one term of satisfying a general set of requirements in three fields of philosophy; viz. in logic, in ethics, and in the history of philosophy. For the purpose of these requirements the field of history is divided into five areas: ancient philosophy, medieval philosophy, continental rationalism, British empiricism, and philosophy of the nineteenth century (including Kant). There is a supervisor for each of these five areas and for the fields of logic and ethics who, in consultation with the student, will set an individually tailored requirement for the area or field of supervision. After completing these requirements, normally by the end of the fourth term of residence, a student will prepare a detailed proposal for the dissertation. This proposal will be the subject of the oral admission to candidacy examination, which will be given by the members of the student's Special Committee.

(3) The final examination will be an oral examination on the candidate's thesis and related topics, given after the thesis has been approved by the candidate's Special Commit-

tee. Two units of residence credit (normally two semesters) are required after passing the admission to candidacy examination before the final examination may be scheduled.

A terminal M.A. degree candidate writes an essay of 6,000–10,000 words on a subject chosen in consultation with his Special Committee. He is given an oral examination on this essay and related subjects.

FINANCIAL AID. A limited amount of financial support in the form of fellowships and teaching assistantships is available for new and continuing students. No application, separate from the application for admission, need be filed for this support by prospective new students. The Field of Philosophy requires teaching experience for all graduate students as a condition for the award of the Ph.D. degree. This training shall be limited to two or three of the student's eight semesters in residence, and is done usually within the second or third year. Teaching fellows devote a maximum of fifteen hours per week to their work.

Special Areas of Research

Max Black: philosophy of mathematics, philosophy of science, philosophy of language, philosophy of logic.

Russell Dancy: ancient philosophy, epistemology.

Keith S. Donnellan: metaphysics, epistemology, philosophy of language.

Arthur Fine: logic, philosophy of science, philosophy of mathematics.

Bruce C. Goldberg: history of philosophy, philosophy of mind, philosophy of language.

Johan A. W. Kamp: logic, philosophy of logic, philosophy of science.

Jaegwon Kim: metaphysics, epistemology, philosophy of science.

Norman Kretzmann: medieval philosophy and logic, ancient philosophy and logic, history of semantics.

David B. Lyons: moral, political, and legal philosophy.

Norman Malcolm: epistemology, philosophy of mind, history of philosophy, metaphysics.

Sydney Shoemaker: metaphysics, philosophy of mind, history of philosophy.

Nicholas Sturgeon: ethics, philosophy of mind.

Allen W. Wood: continental philosophy, history of philosophy, philosophy of religion, ethics, philosophy of history.

Georg Henrik von Wright: philosophy of science, modal logic, moral philosophy.

JOINT PROGRAM IN ANCIENT PHILOSOPHY WITH THE FIELD OF CLASSICS. The object of the joint program is to meet the demand for scholars of ancient philosophy who are

competent in both philosophy and classics. Participants may specialize in one discipline or the other, but it is intended they shall become competent in both. They will be required to take courses in both Fields, and their Special Committees will be composed of faculty members from both. At present there are two scholars of ancient philosophy in the program: Norman Kretzmann and Russell Dancy. Among recent and present visitors teaching at Cornell there have been several scholars of ancient philosophy.

When ancient philosophy is taken as a major subject, the course requirements are as follows: (a) two courses on Plato (one in classics, one in philosophy), (b) two courses on Aristotle (similarly divided), (c) two additional courses in the Department of Classics, (d) two additional courses in the Department of Philosophy, (e) four remaining courses determined by consultation with the student's Special Committee. Thus a basic core of courses will be in Plato and Aristotle. There are several ancient philosophy courses available which can be taken in partial fulfillment of requirements (c), (d), and (e).

Participants either should have had three years of Greek on admission, or should pass a sight-reading test in Greek after one semester. The Department of Classics provides instruction in Greek at various levels. For those who have had none, an accelerated course will be available in the Summer Session.

Courses

Courses numbered 500 or above are conducted as graduate seminars. Instructors listed below are for seminars offered in 1970-71; the topic under each heading is likely to vary from year to year.

- 551 Philosophy of Religion.
- 576 Ancient Philosophy. Mr. Dancy.
- 580 Medieval Philosophy. Mr. Kretzmann.
- 585 Ethics and Value Theory. Mr. Sturgeon.
- 587 Aesthetics.
- 588 Metaphysics. Mr. Kim.
- 589 Metaphysics. Mr. Shoemaker.
- 590 Philosophy of Language. Mr. Goldberg.
- 591 Philosophy of Mind. Mr. Donnellan.
- 594 Theory of Knowledge. Mr. Malcolm.
- 595 Semantics and Logic. Mr. Kripke.
- 596 Logic.

597 The Philosophy of Science.

600 Informal Study. To be taken by graduate students only in exceptional circumstances and by arrangement made by the student with his Special Committee and the faculty member who has agreed to direct the study.

Courses numbered 400-499 are open both to graduate students and to seniors majoring in philosophy. These are usually of seminar size but meet several times each week.

- 403 Plato and Aristotle.
 - 412 Deductive Logic.
 - 413 Deductive Logic.
 - 414 Philosophy of Logic.
 - 415 Problems in Philosophy of Language.
 - 417 Theory of Knowledge.
 - 418 Inductive Logic.
 - 419 Intensional Logic.
 - 425 Contemporary Ethical Theory.
 - 427 Problems in Philosophy of Science.
 - 433 Problems in Ethics and Philosophy of Mind.
- Courses numbered 300-399 are primarily for undergraduates. The Department decides each year which 300-level courses should be open to graduate students. The following 300-level courses have been open to graduate students in recent years.
- 301 Modern Philosophy I.
 - 302 Modern Philosophy II.
 - 303 Medieval Philosophy.
 - 305 Special Topics in the History of Philosophy.
 - 307 Kant.
 - 309 Philosophy of Marx.
 - 311 Existentialism and Phenomenology.
 - 314 Introduction to Philosophy of Mathematics.
 - 321 Aesthetics.
 - 325 Ethical Theory.

88 Romance Studies

327 Introduction to Philosophy of Science.

333 Philosophy of Psychology.

Related Courses in Other Departments

Classics: Courses on the Presocratics, Plato, Aristotle, Lucretius, and Cicero.

History: Courses on the history of science.

Romance Studies

Faculty

Jerome Bernstein, Gian-Paolo Biasin, Dalai Brenes, Alice M. Colby, Herbert Dieckmann, Emmett Gossen, David I. Grossvogel, John W. Kronik, Philip E. Lewis, Edward P. Morris, Jean Parrish, Mary Randel, Alain Seznec

Visiting Professors

Margaret Mann Phillips (fall semester)
Charles V. Aubrun (spring semester)

Field Representative

John W. Kronik, Goldwin Smith Hall

MAJOR AND MINOR SUBJECTS

French Literature
Italian Literature
Spanish Literature

Graduate study in Romance literature is designed to train students as scholars and as teachers of language and literature. The Field expects its candidates to acquire a basic knowledge in many of the following areas: literary texts, literary history, intellectual history, philology, social and political history, biography, and linguistic theory. Students are also expected to develop the necessary skills for a critical understanding of texts, explicating texts, annotating and editing texts, and identifying and developing critical and scholarly problems.

The Field welcomes students from other departments wishing to prepare a minor in Romance Studies. The content of such a minor course of study will not be determined by a standard reading list, but by consultation between the student and a member of the Romance Studies faculty; the aim will be to define a minor fitted to the student's special interests and needs.

ADMISSION REQUIREMENTS. The Field requires applicants to submit scores of the Aptitude and Advanced Tests of the Graduate Record Examinations (see p. 7). All qualified students are admitted directly to the Ph.D. program.

LANGUAGE REQUIREMENTS. Students in Romance Studies are expected to speak and

Linguistics 513-514 Transformational Analysis.

Mathematics: Courses on logic and theory of models.

Semitic Studies: Courses on both Arabic and Jewish philosophers.

write their major language (French, Italian, or Spanish) with fluency and correctness. Upon entering, each student is given a short examination to determine his ability to write his major language. He is then interviewed in that language by faculty members on his readings in the literature of that language based on the reading list sent out at the beginning of the summer preceding entrance. The student who is not able to demonstrate fluency will be encouraged to do at least one year's course work in his major language.

Although the Field has no uniform language requirement beyond mastery of the major language, graduate students will find it to their intellectual and professional advantage to acquire at least genuine reading skill in one or more of the following: (1) a second Romance language; (2) Latin (of which at least some knowledge is necessary for work in Romance philology); and (3) German, or, to a lesser extent, Russian (languages in which much important scholarly and critical work has been published).

TEACHING. An effort will be made to provide an opportunity for classroom experience to qualified candidates interested in a teaching career. Faculty members will undertake to guide and assist graduate students in this teaching. Graduate student teachers occasionally invite faculty members of their choosing to observe and discuss classes; such observation provides, among other things, a solid basis for eventual letters of recommendation. Ordinarily, students will not teach during their first year of residence.

Those who wish to acquire the Master's degree for teaching at the secondary school level will be encouraged to apply to Cornell's Master of Arts in Teaching program.

STUDY ABROAD. The Field offers the opportunity to spend one year in the country of their major interest to students who have passed the admission to candidacy examination. This can be done either in a special program conducted by cooperating universities abroad or through individually tailored programs.

NEW PLAN OF GRADUATE STUDIES. A new plan for graduate work in the Field of Romance Studies, devised in January 1970 by a committee of faculty and students, took effect in September 1970. Objectives of the new plan are:

A. To make better use of the existing Special Committee system which is one of Cornell's singular advantages in graduate education. The student's work is directed not by his Department as such, but by a committee of three faculty members chosen by the student, one or two of whom may be from other departments. Therefore, a student's field of study need not be conceived (and, in practice, often is not conceived) as delimited by the history of one national literature. The new plan seeks to take better advantage of this flexibility and to encourage the student to define his field broadly, in relation to such disciplines as history, art history, music, anthropology, philosophy, and the study of classical literatures or other modern national literatures. The new plan also seeks to replace the old Field requirements by a flexible consultative process: as the student advances in his studies, his Special Committee will recommend that he acquire those languages and other skills which will be necessary to further work in his individually defined field of studies.

B. To replace by more realistic and humane procedures the one-sitting general written and oral admission to candidacy examination covering the entire Field. Insofar as that examination tested acquaintance with major texts, literary history, and developments in scholarship over the whole range of a national literature, its functions will be assumed by individual testing at the end of the tutorials which the student takes during his first year. Insofar as it has examined the student's literary understanding as applied within the area of his specialization, it will be replaced by an open-book examination written over a given period of time, followed by an oral examination. These examinations will be given at the end of the second year or the beginning of the third.

C. To avoid the dangers of premature (and perhaps enforced) specialization. The student of recent literature who lacks a broad and precise sense of the tradition will tend to be shallow and naive; the student of earlier periods, unless well advised of the literary and critical climate of our own day, may become narrowly "philological" and antiquarian in his scholarship. Some systematic breadth of reading is necessary to good teaching and even to getting a good teaching job.

Faculty Specializations

Cornell's Field of Romance Studies is particularly strong in French literature of the eighteenth and twentieth centuries. The following are specialties of the faculty:

- Jerome Bernstein: Latin American studies, the modern Spanish novel.
- Gian-Paolo Biasin: nineteenth- and twentieth-century Italian literature.
- Dalai Brenes: the Spanish Golden Age.
- Alice M. Colby: medieval French literature.
- Herbert Dieckmann: Diderot, eighteenth-century European novel.
- Emmett Gossen: nineteenth- and twentieth-century French literature.
- David I. Grossvogel: twentieth-century French literature.
- John Kronik: nineteenth- and twentieth-century Spanish literature.
- Philip E. Lewis: seventeenth- and nineteenth-century French literature.
- Edward P. Morris: sixteenth-century French literature.
- Jean Parrish: eighteenth-century French literature.
- Alain Seznec: seventeenth-century literature.

The Field strongly encourages research in related areas of study, and especially those in which Cornell is particularly strong: e.g. Romance linguistics; medieval studies (especially in English, philosophy, history, art history, and musicology); Renaissance studies (especially in Classics, history, architecture, and art history); eighteenth-century studies (especially in English, German, history, history of science); and so on. See also course listings in related Fields.

The seminars of the Society for the Humanities are open, by invitation, to graduate students in the Field, and have recently included courses taught by such eminent specialists as Jean Seznec and Frances Yates. The Department of Romance Studies seeks to replace its members who take sabbatical leave by distinguished visiting scholars and writers: in recent years Arthur Adamov, C. P. Brand, Moshé Lazar, Octavio Paz, R. B. Tate, and Paul Zumthor have each taught for a term or a year at Cornell.

Cornell is fortunate in holding in its main library the renowned Fiske collections of books pertaining to Dante and Petrarch, which afford unique opportunities for scholarly research.

Courses

This list of course offerings is based on the academic year 1970-71 and is meant to serve only as a typical sample. Students should check with the Department as to additional offerings, times, places, etc.

90 Romance Studies

French

404 French for Teachers. Spring term. Credit four hours. Prerequisite: qualification in French. Mr. Benoit.

Survey of the current teaching methods, preparation of teaching materials, selection and use of textbooks and realia, further study of phonetics, syntax, and culture as needed. Required of students seeking certification by New York State.

429 Composition and Style. Fall term. Credit four hours. Limited to 10 students. Prerequisite: placement at the departmental French language examination. Mr. Béraud.

Normally taken by all entering graduate students in French, with the exception of those exempted on the basis of the departmental examination, and those who, not being prepared to undertake work at the level of French 429, will be asked first to take French 303 or 304. French 429 presupposes competence in the handling of French vocabulary, syntax, and idiom. The purpose is to teach the writing of French as a means of effective expression on literary and historical subjects. Review of advanced grammar; translations from and into literary French; lexical, stylistic, and methodological study of selected French critical works; literary *explication de textes*; study of French versification; analysis of literary topics, and composition of outlines. Short daily or weekly papers. Conducted in French.

447-448 Medieval Literature. Throughout the year. Credit four hours. Prerequisite: two terms of 300-level French literature courses or consent of the instructor. First term not prerequisite to second. Miss Colby.

Translation of Old French texts into English and Modern French. The first term deals with the epic; the second term with the romance. Facility in reading Old French and appreciation of these two major genres are the primary goals of this course, but some attention will be given to other important genres.

461 Corneille. Fall term. Credit four hours. Prerequisite: 201-202 or consent of the instructor. Mr. Lewis.

Readings will include Corneille's writings on the theater as well as the major comedies and tragedies. *Horace*, *Cinna*, and *Polyeucte* will be analyzed in depth, and the interpretations of several recent critics (e.g., Nadal, Mauron, Dort, Nelson, Doubrovsky) will be examined.

470 Pierre Bayle and Fontenelle. Spring term. Credit four hours. Mr. Dieckmann.

The transition from seventeenth-century to eighteenth-century thought: Bayle and Fontenelle. Close study of selected works.

488 Naturalism. Spring term. Credit four hours. Prerequisite: 201-202 or consent of the instructor. Mr. Gossen.

Study of the naturalist movement, its background and theories, with emphasis on the conception of the novel. Readings: novels of Zola and Goncourt, selected short stories of Maupassant.

539 Introduction to French Philology. Fall term. Credit four hours. Miss Colby.

548 Medieval Seminar: *Le Roman de la Rose*. Spring term. Credit four hours. Miss Colby.

553 Montaigne, Descartes, Pascal. Fall term. Credit four hours. Mr. Dieckmann.

555 Renaissance Seminar: Topics in Pléiade Poetry—Ronsard and Du Bellay. Fall term. Credit four hours. Mr. Morris.

The aim of this seminar will be to prepare and elaborate a comparison of the respective gifts, temperaments, erudition, poetic practice, and existential choices of Ronsard and Du Bellay. The problem will be approached through concentrated study of three poetic forms central to the Pléiade's art: Horatian ode, epigram, and sonnet. Ronsard's and Du Bellay's expressive use of those forms will be examined in relation to their ancient or Italian models; literary imitation will be viewed not as mere stylistic borrowing, but as that contention with the legacy of the past by which a poet discovers his own essence and writes it out. Consideration will be given to such topics as: humanist learning; court life, country life, and exile; love, repression, and self-love; speech and silence; "divine frenzy" and play. Some comparisons will be made with other Pléiade poets, and with rivals or predecessors like Jean Lemaire, Marot, and Scève. The accumulated scholarship of modern times will be extensively drawn on. The seminar will be conducted in French.

598 Robbe-Grillet and Some Aspects of Novelistic Criticism. Spring term. Credit four hours. Mr. Grossvogel.

599 Don Juan as a Figure of Drama and Existential Man. Fall term. Credit four hours. Mr. Grossvogel.

639-640 Special Topics in French Literature. Credit four hours. Hours to be arranged. Staff.

649 Graduate Tutorials. Fall term. Required of all entering graduate students in French. Staff.

Italian

345-346 Dante. Throughout the year. Credit four hours a term. Prerequisite: reading knowledge of Italian and consent of the instructor.

361 The Modern Novel. Fall term. Credit four hours. Mr. Biasin.

Major figures and tendencies of the late nineteenth-century and early twentieth-century novel. In Italian.

366 Novels of the Resistance. Spring term. Credit four hours. Mr. Biasin.

A turning point in the contemporary history of Italy as reflected in "historical novels" by such authors as Vittorini, Pavese, Calvino, and Cassola. In Italian.

457 Eugenio Montale. Fall term. Credit four hours. Prerequisite: consent of the instructor. Mr. Biasin.

From *Ossi di seppia* to *Xenia*. In Italian.

432 Alessandro Manzoni. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Biasin.

A close reading of *I Promessi Sposi* and related texts. In Italian.

594 Trends in Contemporary Criticism. Spring term. Credit four hours. Prerequisite: reading knowledge of Italian and consent of the instructor. Mr. Biasin.

An examination of how the old and new "sciences of man," such as sociology, psychoanalysis, structuralism, linguistics, and semiology, affect literary criticism.

639-640 Special Topics in Italian Literature. Throughout the year. Credit four hours. Hours to be arranged. Staff.

Spanish

404 Spanish for Teachers. Spring term. Credit four hours. Prerequisite: qualification in Spanish and Linguistics 201. Mr. Lozano.

A course in methodology and applied linguistics for prospective teachers of the Spanish language. A survey of current attitudes, methods, materials, and techniques. The application of descriptive linguistics to the organization of lesson material, illustrated mainly through the contrastive study of Spanish and English phonology. Required for provisional New York State teacher certification.

419-420 Special Topics in Hispanic Literature. Throughout the year. Credit four hours a term. Staff.

Guided independent study of specific topics in Hispanic literature.

440 Medieval Literature. Spring term. Credit four hours. Prerequisite: one 300-level literature course or consent of the instructor.

443 The Picaresque Novel. Fall term. Credit four hours. Prerequisite: a 300-level Spanish literature course or consent of the instructor. Mr. Brenes.

A study of the development and degeneration of the picaresque novel in Spain in the Golden Age. Lectures and discussion in Spanish.

457-458 Cervantes. Throughout the year. Credit four hours a term. Prerequisite: one 300-level literature course or consent of the instructor. First term not prerequisite to the second. Mr. Brenes.

464 Drama of the Spanish Golden Age. Spring term. Credit four hours. Prerequisite: one 300-level literature course or consent of the instructor. Mrs. Randel.

Intensive study of selected plays by Lope, Tirso, and Calderón.

469 Golden Age Nondramatic Literature. Fall term. Credit four hours. Prerequisite: two 300-level literature courses or consent of the instructor. Mr. Brenes.

483 Eighteenth- and Nineteenth-Century Spanish Drama. Fall term. Credit four hours. Prerequisite: one 300-level literature course or consent of the instructor. Mr. Kronik.

484 Romanticism in Spain. Spring term. Credit four hours. Prerequisite: one 300-level literature course or consent of the instructor. Mr. Kronik.

A study of Spanish Romanticism in the context of Romanticism in Europe. Conducted in Spanish.

486 Contemporary Spanish Drama. Spring term. Credit four hours. Prerequisite: a 300-level Spanish literature course or consent of the instructor. Mr. Brenes.

487 The Nineteenth-Century Spanish Novel. Fall term. Credit four hours. Prerequisite: one 300-level literature course or consent of the instructor. Mr. Brenes.

489 Spanish-American Literature to 1888. Fall term. Credit four hours. Prerequisite: a 300-level Spanish literature course or consent of the instructor. Mr. Bernstein.

541 Graduate Seminar in Spanish Literature: The Golden Age. Fall term. Credit four hours. Mr. Brenes.

639-640 Special Topics in Hispanic Literature. Throughout the year. Credit four hours a term. Staff.

Romance Linguistics

Although majors and minors in Romance Linguistics will in the future be under the jurisdiction of a Field other than Romance Studies, the new administrative arrangements are not complete at this printing. Therefore, a brief description of these offerings is inserted here as a matter of convenience. For further information, write to Professor Robert A. Hall, Jr., Morrill Hall.

Faculty for Romance Linguistics

Frederick B. Agard, L. J. Benoit, Charles L. Eastlack, Robert A. Hall, Jr., A. G. Lozano, Mario D. Saltarelli, Donald F. Solá

MAJOR AND MINOR SUBJECTS

French Linguistics
Italian Linguistics
Romance Linguistics
Spanish Linguistics

The student in Romance linguistics is given training in four types of study and research: (1) general principles of linguistic analysis; (2) the description of the structure of the Romance language of his major interest; (3) the external and internal history of that language; and (4) the genetic and typological relationships of the Romance family of languages. Special emphasis is laid on the relation between linguistic history and cultural factors (literary, political, and social). A concomitant aim of this area is to afford instruction and practice in the application of linguistics to the teaching of one or more Romance languages.

Candidates in Romance linguistics may choose as their major subject either the linguistics (descriptive and historical) of a specific Romance language or the comparative study of the Romance languages. Such candidates will normally have, as one of their minor subjects, the literature of the language in which their major interest lies. A prior knowledge of Latin is desirable; a candidate without prior knowledge of Latin will be expected to acquire a working acquaintance with its linguistic structure and history. Each candidate's program will be determined in individual consultation with his Special Committee.

Courses

(See also the *Announcement of the Graduate School: Social Sciences.*)

French

401-402 History of the French Language. Throughout the year. Credit four hours a term. Prerequisite: qualification in French, and Linguistics 201. Mr. Benoit.

Fall term: detailed study of the structural development of French from the origins to the Old French period. Spring term: selected readings in Old French texts, examination of structural changes from the Old French period to the present.

403 Linguistic Structure of French. Fall term. Credit four hours. Prerequisite: qualification in French, and Linguistics 201. Messrs. Civera and Noblitt.

A descriptive analysis of present-day French, with emphasis on its phonetics, phonemics, morphology, and syntax. Required of students seeking certification by New York State.

The Comparative Study of the Romance Languages. (Linguistics 441-442, 443-444, 445, 446, 450.)

554 Gallo-Romance Dialectology. Spring term. Credit four hours. Given in alternate years. Prerequisite: Linguistics 441-442, 443-444, or consent of the instructor. Mr. Benoit.

555 Historical Phonology of French. Fall term. Credit four hours. Prerequisite: Linguistics 201 or consent of the instructor. Mr. Civera.

558 Linguistic Structures of Old and Middle French. Spring term. Credit four hours. Prerequisite: French 403 or consent of the instructor. Mr. Noblitt.

600 Seminar in French Linguistics. On demand. Credit four hours a term. Mr. Hall.

Italian

431 Structure of Italian. Fall term. Credit four hours. Given in alternate years. Prerequisite: qualification in Italian. Mr. Hall.

432 Italian Dialectology. Spring term. Credit four hours. Given in alternate years. Mr. Hall.

433 Old Italian Texts. Fall term. Credit four hours. Given in alternate years. Prerequisite: consent of the instructor. Mr. Hall.

434 History of the Italian Language. Spring term. Credit four hours. Given in alternate years. Prerequisite: qualification in Italian and Linguistics 201. Mr. Hall.

600 Seminar in Italian Linguistics. According to demand. Credit four hours. Mr. Hall.

Spanish

401 History of the Spanish Language. Fall term. Credit four hours. Given in alternate years. Prerequisite: qualification in Spanish, and Linguistics 201. Mr. Lozano.

402 Old Spanish. Spring term. Credit four hours. Given in alternate years. Prerequisite: qualification in Spanish. Mr. Lozano.

403 The Grammatical Structure of Spanish. Fall term. Credit four hours. Prerequisite: qualification in Spanish, and Linguistics 201. Mr. Lozano.

Descriptive analysis of the morphological and syntactical structure of present-day standard Spanish.

404 Spanish for Teachers. Spring term. Credit four hours. Prerequisite: qualification in Spanish, and Linguistics 201. Mr. Lozano.

A course in methodology and applied lin-

guistics for prospective teachers of the Spanish language. Required for provisional New York State teacher certification.

501 Linguistic Structures of Ibero-Romance. Fall term. Credit four hours. Given in alternate years. Prerequisite: consent of the instructor. Mr. Agard.

503 Hispanic Dialectology. Fall term. Credit four hours. Given in alternate years. Prerequisite: consent of the instructor. Mr. Lozano.

600 Seminar in Ibero-Romance Linguistics. According to demand. Credit four hours.

Semitic Studies

Faculty

Calum M. Carmichael, Alfred L. Ivry, David Patterson, Isaac Rabinowitz

Field Representative

Calum M. Carmichael, 162 Rockefeller Hall

MAJOR AND MINOR SUBJECTS

Arabic

Aramaic (including Syriac)

Biblical Studies

Hebrew

Semitic Studies at Cornell are primarily concerned with those Semitic languages and literatures which have most directly, deeply, and permanently influenced—and been influenced by—the civilization and culture of Europe and the Americas. More specifically, the Graduate School's program in this Field is designed to help students become skilled interpreters and expounders of Hebrew, Aramaic-Syriac, and Arabic texts of humane interest, importance, and value, whether ancient, medieval, or modern.

Candidates for the Ph.D. degree will be expected to demonstrate sufficient expertness in the full range of Hebrew, Aramaic-Syriac, and Arabic studies—especially, control of texts in these languages—to be adjudged capable of teaching and of scholarship within their ambit. Each candidate will be expected to *emphasize* one of these several groups but to achieve an only lesser degree of control of the others. Within whatever group he may choose to emphasize, he will *specialize* in one or another type of text (e.g., literary or philosophical), and normally his dissertation will be written on a topic germane to his specialization.

Candidates for the Ph.D. degree whose major subject is biblical studies will be required to demonstrate special proficiency in the original languages of the Old and New Testaments and in those of the chief ancient

versions: Hebrew, Aramaic, Greek, Latin, and Syriac. Proficiency in Arabic will also be required.

Candidates for advanced degrees in any subject included in the Field of Semitic Studies will be expected to have had at least three years of undergraduate study of one Semitic language, or the equivalent, prior to admission to the Graduate School.

Competence in reading scholarly materials in any two of the following must have been demonstrated by candidates for the Ph.D. degree before the end of the fourth term of graduate study: French, German, Italian, Russian, Spanish. Candidates for the Master's degree must have demonstrated competence in one of the foregoing, or in Greek or Latin, at least one term before the degree is awarded.

Candidates for advanced degrees in the Field of Semitic Studies may complement their studies with work in some associated Field, e.g., Classics, Comparative Literature, History, or Philosophy.

Examinations required by the Graduate School are described on p. 11 of this *Announcement*.

More detailed information about graduate programs in the Field of Semitic Studies may be obtained by writing to the Field Representative.

Courses

Hebrew and Aramaic

101-102 Elementary Literary Hebrew. Throughout the year. Credit three hours a term. First term prerequisite to second.

201 Classical Hebrew Prose. Either term. Credit three hours. Prerequisite: Hebrew 102, or consent of the instructor.

Grammar; selected prose narratives of the Hebrew Bible.

94 Semitic Studies

204 Postbiblical Hebrew Prose I. Spring term. Credit three hours. Prerequisite: Hebrew 201, or three units of college entrance Hebrew and the consent of the instructor.

Rapid reading of narrative texts in rabbinic, medieval, and modern Hebrew.

302 Classical Hebrew Poetry. Spring term. Credit four hours. Prerequisite: Hebrew 201 or consent of the instructor.

Reading and interpretation of texts selected from the Psalter and the Prophets.

305 Postbiblical Hebrew Prose II. Fall term. Credit four hours. Prerequisite: Hebrew 204, or four units of college entrance Hebrew and consent of the instructor.

Readings in the Mishnah, in medieval theological and philosophical texts, and in the modern essay.

307 Postbiblical Hebrew Poetry. Fall term. Credit four hours. Prerequisite: Hebrew 305.

Reading of representative works by important medieval and modern Hebrew poets from Kalir to Bialik.

411 Mishnah and Tosephta. Fall term. Credit four hours. Prerequisite: Hebrew 305 or consent of the instructor.

421 Midrash. Fall term. Credit four hours. Prerequisite: Hebrew 305 or consent of the instructor.

423 Talmud. Fall term. Credit four hours. Prerequisite: Hebrew 305 and Aramaic 452, or consent of the instructor.

432 Medieval Hebrew Literature. Spring term. Credit four hours. Prerequisite: Hebrew 305 or consent of the instructor.

Study of a group of texts illustrative of several of the main genres of medieval Hebrew literature: biblical exegesis, liturgical poetry, ethics, philosophy, mysticism, science, etc.

441 Modern Hebrew Literature. Fall term. Credit four hours.

The development of modern Hebrew letters, both fiction and nonfiction, traced in selected works of the best writers from "Mendele" (S. J. Abramowitz, 1836-1917) and "'Ahad Ha-Am" (Asher Ginsberg, 1856-1927) to the present.

451 Aramaic. Fall term. Credit four hours. Prerequisite: Hebrew 201, Arabic 208, or consent of the instructor.

452 Talmudic Aramaic. Spring term. Credit four hours. Prerequisite: Hebrew 305 or consent of the instructor.

Accidence and syntax of Galilean and of Babylonian Talmudic Aramaic.

453-454 Syriac. Throughout the year. Credit four hours a term. Prerequisite: Hebrew 201, Arabic 208, or consent of the instructor.

The classical language and literature of Syrian and Mesopotamian Christianity.

471-472 Seminar. Throughout the year. Credit four hours a term.

401 Independent Study. Either term. Credit two hours. Staff.

402 Independent Study. Either term. Credit four hours. Staff.

Arabic

105-106 Elementary Literary Arabic. Throughout the year. Credit three hours a term. First term prerequisite to second.

207-208 Intermediate Literary Arabic. Throughout the year. Credit three hours a term. Prerequisite: Arabic 106 or consent of the instructor.

Rapid reading of selected texts in the main genres of Arabic literature.

317 Islamic Texts in Arabic. Fall term. Credit four hours. Prerequisite: Arabic 208 or consent of the instructor.

318 Arabic Geographers and Historians. Spring term. Credit four hours. Prerequisite: Arabic 208 or consent of the instructor.

461 Medieval Arabic Belles Lettres ('Adab). Spring term. Credit four hours. Prerequisite: Arabic 317 or 318, or consent of the instructor.

462 Arabic Philosophers. Fall term. Credit four hours. Prerequisite: Arabic 317 or 318, or consent of the instructor.

481 Modern Arabic Literature. Fall term. Credit four hours. Prerequisite: Arabic 318, or consent of the instructor.

482 Arabic Poetry. Spring term. Credit four hours. Prerequisite: Arabic 318, 461, or consent of the instructor.

491-492 Seminar. Throughout the year. Credit four hours a term.

405 Independent Study. Either term. Credit two hours. Staff.

406 Independent Study. Either term. Credit four hours. Staff.

Other Courses

Comparative Literature 301 The Literature of the Old Testament. Fall term. Credit four hours. Mr. Rabinowitz.

Readings, in translation, from books of the Old Testament composed during the pre-Exile period of Israel's history (to c. 520 B.C.). The various genres of classical Hebrew literature and the ancient Israelite ideas and institutions essential to comprehension of the texts will be studied.

Comparative Literature 302 The Literature of Post-Exilic Israel. Spring term. Credit four hours. Mr. Rabinowitz.

Readings, in translation, from the later books of the Old Testament, the apocryphal literature, and the Qumran (Dead Sea) Scrolls.

An introduction to the thought of the culture which produced both normative Judaism and early Christianity.

Comparative Literature 303 Literary Studies in Christian Origins. Fall term. Credit four hours. Mr. Carmichael.

Analysis of important ideas in the New Testament and early Christianity in relation to their appearance in the Old Testament and other ancient Near Eastern literature.

Comparative Literature 304 The Rational Tradition in Jewish and Islamic Literature. Spring term. Credit four hours. Mr. Ivry.

Topics illustrative of the attempt within Judaism and Islam to locate religious tradition in a rational framework.

Slavic Studies

Faculty

Patricia Carden, William Chalsma, Frederick Foos, George Gibian, Richard L. Leed

Field Representative

Richard L. Leed, 131 Morrill Hall

MAJOR AND MINOR SUBJECTS

Russian Literature
Slavic Linguistics

ADMISSION REQUIREMENTS. There are no special requirements for admission to the Field of Slavic Studies other than the general requirements for admission to the Graduate School. It is recommended, though not required, that applicants submit scores from the Graduate Record Examinations.

LANGUAGE REQUIREMENTS. Candidates for the M.A. degree are required to demonstrate a reading knowledge of either French or German. Candidates for the Ph.D. degree are required to demonstrate a reading knowledge of both French and German.

TEACHING. Candidates for the Ph.D. degree are normally required to spend two semesters as teaching apprentices as a part of their training towards the degree.

SPECIALIZATION WITHIN THE FIELD. A student who chooses either Russian literature or Slavic linguistics as a major may choose the other for a minor, or he may choose minor subjects from other Fields in the University, e.g., other literatures, linguistics, history, government, economics, psychology, mathematics, computer science, philosophy, etc.

A Ph.D. candidate will normally have two minor subjects, although it is possible, in consultation with the chairman of his Special

Committee, to plan a program of studies with only one; in the latter case the student is still required to select a total of three professors to serve on his Special Committee.

The scope of the Slavic Studies program can be seen from the listings of faculty specializations and courses, although these listings do not exhaust the possibilities.

EXAMINATIONS. Three examinations are required of Ph.D. students: (1) The qualifying examination, given at the end of the first year, is intended to assess the student's capacity for Ph.D. work and to enable the members of his Special Committee to assist him in planning his future work on the basis of his strengths and weaknesses as exhibited in the examination. (2) The admission to candidacy examination is a comprehensive examination usually taken in the third year. One year of residence must follow. (3) The final examination is primarily concerned with the subject matter of the student's dissertation and is taken upon completion of the dissertation.

The dates for oral examinations are set by the student in consultation with the members of his Special Committee. The dates for written examinations are announced by the department concerned in the student's major subject.

Students for the M.A. degree normally take an examination at the end of their second semester of study. If, on the basis of this examination, it is determined that no further course work is required, the student will be awarded the M.A. degree upon submission of a Master's essay.

A student who wishes to obtain the Ph.D. degree will receive an M.A. degree in either of two ways. (1) He may be required to write a Master's Essay if the Special Committee so indicates. This decision is made when the

student takes the qualifying examination. (2) Otherwise, he will be awarded the M.A. degree without an essay upon passing the admission to candidacy examination.

Faculty and Specializations

Patricia Carden: twentieth-century prose, modernism and the avant-garde.

William Chalsma: twentieth-century prose and poetry, acmeism.

Frederick Foos: comparative Slavic linguistics, South Slavic linguistics, Slovenian.

George Gibian: nineteenth-century literature, Tolstoy, Dostoevsky, contemporary literature.

Richard Leed: historical Slavic linguistics, Russian dialectology, intonation.

Courses

(This list excludes Russian language courses, which range from elementary to advanced, including special reading courses.)

131S-132S Elementary Course in Slavic Languages. Throughout the year. Credit three hours a term. Prerequisite: qualification in Russian and consent of the instructor. Staff.

In a given year one of the following languages will be offered according to demand: Serbo-Croatian, Bulgarian, Slovenian, Polish, or Czech.

301-302 Advanced Russian Morphology and Syntax. Throughout the year. Credit four hours. Prerequisite: for 301, Russian 204 or consent of the instructor.

314 Intellectual Background of Russian Literature, 1750-1900. Spring term. Credit four hours.

Rise of Romanticism, Slavophiles. Western influences. Conducted in English, but reading knowledge of Russian required.

331 Russian Poetry. Fall term. Credit four hours. Prerequisite: Russian 202 and consent of the instructor.

332 Russian Theater and Drama. Spring term. Credit four hours.

Survey of the history of the Russian drama from the eighteenth century to the present: Fonvizin, Griboedov, Gogol, Ostrovsky, and Chekhov. Soviet dramatists. Conducted in English, but reading knowledge of Russian required.

334 The Russian Short Story. Spring term. Credit four hours. Prerequisite: Russian 202 and consent of the instructor.

Gogol, Turgenev, Chekhov, and others.

369 Dostoevsky. Fall term. Credit four hours. Mr. Chalsma.

Reading of Dostoevsky's major works from *Poor Folk* to *The Brothers Karamazov*. Consideration of such problems as Dostoevsky's conception of good and evil, the structure of his novels, his importance for modern European literature. Reading in translation, but graduate students will do a portion of the reading in Russian.

401-402 History of the Russian Language. Throughout the year in alternate years. Credit four hours a term. Prerequisite: qualification in Russian, and Linguistics 201-202. Mr. Leed.

403 Linguistic Structure of Russian. Fall term in alternate years. Credit four hours. Prerequisite: qualification in Russian and Linguistics 301. Mr. Leed.

A descriptive study and analysis of Russian linguistic structure. Russian phonetics, phonemics, morphology, and syntax.

404 Russian for Teachers. Spring term in alternate years. Credit four hours. Prerequisite: Linguistics 201 and Russian 403. Mr. Leed.

421 Supervised Reading and Research. Either term. Variable credit. By permission of the department.

431 Russian Prose Fiction. Fall term. Credit four hours. Prerequisite: 332 or 334 or equivalent, and consent of the instructor.

432 Pushkin. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Chalsma.

435 Gogol. Fall term. Credit four hours. Prerequisite: 332 or 334 or equivalent, and consent of the instructor.

501 Old Church Slavic. Fall term in alternate years. Credit four hours. Mr. Foos.

502 Old Russian. Spring term in alternate years. Credit four hours. Mr. Foos.

517 Russian Stylistics. Fall term. Credit four hours. Miss Glasse.

Literary uses of the Russian language. Close examination of texts from various periods and genres. Practical exercises.

518 Russian Stylistics. Spring term. Credit four hours. Miss Glasse.

520 Studies in Russian Poetry. Spring term. Credit four hours. Mr. Chalsma.

Extensive reading of nineteenth- and twentieth-century poets. Two or three poets

to be selected for the class as a whole; each student to work privately on another poet of his choice. Reports, papers, readings of important critical works (such as Eikenbaum's *Melodika russkogo stikha*).

521 Russian Literature from the Beginnings to 1700. Fall term. Credit four hours. Miss Carden.

Representative works of Old Russian literature will be studied in the context of the cultural and artistic life of the times. Topics: the integration of the arts. Kievan Rus as participant in the pre-Renaissance. Representative genres. The creation of Muscovite culture. Polemical literature.

522 Eighteenth-Century Literature. Fall term. Credit four hours. Prerequisite: 521 or consent of the instructor. Miss Glasse.

523 Early Nineteenth-Century Literature. Spring term. Credit four hours. Prerequisite: 522 or consent of the instructor. Miss Glasse.

1800-1825: Early Russian romanticism, Zhukovskii, Batiushkov, Delvig, Baratynskii, Ryleev.

524 Mid-Nineteenth-Century Literature. Fall term. Credit four hours. Prerequisite: advanced knowledge of Russian and, preferably, 523. Miss Glasse.

Continuation of 523. Will cover period from 1825-1850. Emphasis on the journals and prose of the 1830's and 1840's. Belinskii, Lermontov, Nadezhdin, Vel'tman, V. F. Odoevskii, Polevoi, Zagoskin.

528 Topics in Soviet Literature. Fall term. Credit four hours. Prerequisite: Comparative Literature 368 or the equivalent and a reading knowledge of Russian.

A survey of the major periods, figures, and movements of the Soviet period with emphasis on those theoretical and historical problems that are fundamental to the period as a whole. Early Soviet literature and pre-revolutionary literary movements; the 1920's as an avant-garde period; ideological controversy and writers' groupings; the unnoticed 1930's; the place of emigre literature; the theory of socialist realism and the science of thaw measurement.

534 Topics in Russian Symbolism. Spring term. Credit four hours.

600 Seminar in Slavic Linguistics. Offered in accordance with student needs. Credit four hours.

601 Introduction to Graduate Study. Fall term. Credit four hours. S-U grades only. Staff.

Required of all first-year graduate students majoring in Russian literature. Bibliography, methods of literary analysis, stylistics, topics in scholarship.

603 Introduction to Slavic Linguistics. Fall term. Credit four hours. Prerequisite: consent of the instructor. Open only to graduate students majoring in Russian literature. Mr. Foos.

Survey of basic concepts and current trends in linguistic theory; comparison of the basic structures of the Slavic languages.

604 Seminar in Application of Linguistics to Analysis of Slavic Literatures. Spring term. Credit four hours. Prerequisite: consent of the instructor. Mr. Foos.

Specific topics to be chosen according to the students' needs.

611 Seminar in Russian Dialect Geography. Fall term. Credit four hours. Prerequisite: consent of the instructor. Mr. Leed.

671 Seminar in Twentieth-Century Russian Literature. Fall term. Credit four hours. May be taken repeatedly. Miss Carden, Mr. Gibian, and Mr. Chalsma.

Topic to be announced.

672 Seminar in Nineteenth-Century Russian Literature. Spring term. Credit four hours. May be taken repeatedly. Miss Carden and Mr. Gibian.

Topic varies from year to year.

Comparative Literature 367 The Russian Novel. Fall term. Credit four hours. Mr. Gibian.

Comparative Literature 368 Soviet Literature. Spring term. Credit four hours. Mr. Gibian.

Comparative Literature 472 Origins of the Avant-Garde. Spring term. Credit four hours. Prerequisite: permission of the instructor. Limited to 30. Miss Carden.

Linguistics 561-562 Comparative Slavic Linguistics. Throughout the year in alternate years. Credit four hours a term. Prerequisite: consent of the instructor. Mr. Foos.

Theatre Arts

Faculty

H. Darkes Albright, Gordon Beck, Marvin A. Carlson, James H. Clancy, Stephen Cole, Bert O. States

Field Representative (M.A./Ph.D.)

Marvin A. Carlson, 106 Lincoln Hall

Field Representative (M.F.A.)

Stephen R. Cole, 110 Lincoln Hall

MAJOR SUBJECTS

Cinema Studies (M.A. only)
Drama and the Theatre
Dramatic Production (M.A. only)

MINOR SUBJECTS

Cinema
Dramatic Production

ADMISSION REQUIREMENTS. Candidates for the academic degrees are selected on the basis of undergraduate achievement, letters of recommendation, and Graduate Record Examinations Aptitude Test scores. If these scores are to be available by the time applications for fellowships and scholarships are received, the examination must be taken by December. For the M.F.A. degree, interviews and screening sessions are normally required. A few applicants with superior qualifications may be admitted directly to the doctoral program without prior graduate study, but normally direct admission to this program will be restricted to those with M.A. degrees. Others will be admitted as candidates for the Master's degree or the Master's degree and doctorate. The latter will be reconsidered during the third term of their work in residence for admission to the doctoral program.

LANGUAGE REQUIREMENTS. Although there is no language requirement for the M.A. degree, students planning to work for a Ph.D. degree are encouraged to attain proficiency in one foreign language before gaining the Master's degree. The normal language requirement for the Ph.D. degree is proficiency in two foreign languages. The Special Committee, however, may approve a single language at a higher proficiency when this seems justified by the area of thesis investigation.

EXAMINATIONS. A final examination is required for the M.A. degree. Students wishing to be considered for Ph.D. candidacy should combine this with the qualifying examination. The three examinations required for the Ph.D. degree are: (1) The qualifying examination, given in the third term of residence. This examination serves, with completed course work, as a basis for judgment of the appli-

cant's fitness to continue study toward the doctorate. (2) A comprehensive examination on the field, given not later than two terms before completion of residence. (3) A final examination on the thesis and related material, given upon completion of the thesis.

RESEARCH AND STUDY OPPORTUNITIES.

The chief aim of the Ph.D. program in Theatre Arts is to develop competent scholars, teachers, and directors for the educational theatre. Therefore research, teaching, and production will be, to a meaningful extent, involved in each Ph.D. program.

The Field of Theatre Arts offers opportunities for graduate study and research in many phases of the discipline, including dramatic literature; history, criticism, and aesthetics of the theatre; cinema studies; playwriting; and most aspects of theatrical production. The special interests of the staff are as follows:

H. Darkes Albright: acting, theatre history, and aesthetics.

Gordon Beck: cinema studies.

Marvin A. Carlson: dramatic literature, theatre history.

James H. Clancy: directing, dramatic literature, theatre aesthetics.

Stephen Cole: acting, directing, theatre aesthetics.

Bert O. States: playwriting, dramatic structure.

THE M.F.A. PROGRAM. In addition to the M.A. and Ph.D. degrees, the Field offers a Master of Fine Arts degree (in acting/directing), requiring a minimum of two years in residence and emphasizing training in workshop and studio. A final project will replace the conventional final examination. The M.F.A. is normally a terminal degree. (In some cases, the work in acting/directing may be pursued on a nondegree basis.)

Courses

The following list of courses and seminars is assembled from the offerings of previous years and is intended to be illustrative. Students interested in dramatic literature should also note the offerings in the Field of Comparative Literature and the various national literatures.

Acting and Directing

265 Voice and Speech for Performance. Fall term. Credit two hours. Primarily for M.F.A. candidates; others by consent of the instructor.

A study of voice and speech variables and their nature when applied to theatrical per-

formance. Emphasis is on ear training and the techniques of voice production to achieve precision of articulation, and to improve vocal range, resonance, and flexibility. Laboratory sessions under supervision of the instructor include programmed self-instruction in general American and English phonetics, and work on individual voice and articulation problems.

266 Voice and Speech for Performance. Spring term. Credit two hours. Prerequisite: 265.

Advanced voice and diction for the stage. Stage dialects studied through the combined approach of applied phonetics and ear training. Continued work in the techniques of voice production to improve range, resonance, and flexibility.

285 Kinesthetics for the Theatre. Fall term. Credit two hours. Primarily for M.F.A. candidates; others by consent of the instructor.

Flexibility and coordination exercises, posture and walk control, yoga as applied to theatre movement. Introduction to basic rules of body aesthetics, dietetics, and physiotherapy as applied to the performing arts.

286 Kinesthetics for the Theatre. Spring term. Credit two hours. Prerequisite: 285.

Continuation of 285 with introduction to stage dueling and various techniques of weaponry and combat.

385-386 First-Year American Mime. Throughout the year. Credit two hours each term. First term prerequisite to the second. Primarily for M.F.A. candidates; others by consent of instructor.

The actor is taught to create and perform symbolic activities in the mime form. Emphasis is on discipline, psychological preparation, mime acting, movement, and material.

387-388 Second-Year American Mime. Throughout the year. Credit two hours per term. Prerequisite: 385-386 and consent of the instructor.

Continuation of 385-386 with an emphasis on directing, design, and creative imagination. Work is completed by the creating and playing of scenes.

465-466 Graduate Voice and Speech for Performance. Throughout the year. Credit two hours. M.F.A. candidates only.

Emphasis on vocal interpretation of roles. Application of special skills and vocal technique in building character and interpreting roles.

480 Graduate Acting. Throughout the year. Credit four hours. M.F.A. candidates only.

Hours to be arranged. May be repeated for credit.

The study and practice of fundamental and advanced technique and methodology.

498 Advanced Directing. Fall term. Credit four hours. Prerequisite: 290 and consent of the instructor.

Investigation of the theatrical meaning of a play and the methods by which such meaning may be communicated in the modern theatre. Discussion and studio practice.

499 Projects in Directing. Either term. Credit to be arranged. Prerequisite: consent of the departmental staff. Hours to be arranged.

The planning and execution of directing projects by advanced students in the public facilities of the Theatre Arts Department.

599 Seminar in Theories of Directing. Fall term. Credit four hours. Prerequisite: consent of the instructor.

A study of the theory and practice of significant directors in theatre history. An examination of directorial interpretation and theatrical realization, with consideration of the social, philosophical, and cultural milieu in which the directors worked.

Cinema Studies

375 History of the Cinema I. Fall term. Credit four hours.

An introduction to the history and art of the cinema: its characteristic problems, devices, and development. Representative motion pictures will be studied. Lectures, demonstrations, and film viewings.

376 History of the Cinema II. Spring term. Credit four hours.

An examination of the nonfiction film and the independent film. Attention is given to the film maker as artist, propagandist, and recorder. Representative examples will be studied. Lectures, demonstrations, and film viewings.

377 Fundamentals of Cinematography. Fall term. Credit four hours.

Principles and methods of motion picture production with primary emphasis on creative techniques: script writing, photography, editing, special effects, and sound recording. Lectures, demonstrations, and special projects.

475 Seminar in the Cinema. Spring term. Credit four hours. Prerequisite: 375 and 376.

Selected topics in the history and aesthetics of the cinema.

Drama and the Theatre

333 History of the Theatre I. Fall term. Credit four hours.

A survey of the characteristics of primitive theatre and of theatrical styles and production modes in classical Greece, Rome, Medieval Europe, Renaissance England, and Spain.

334 History of the Theatre II. Spring term. Credit four hours.

A survey of theatrical styles and production modes in Europe and the Orient since 1642. Among the areas considered will be Renaissance France, the English Restoration, the eighteenth and nineteenth centuries in England, France, Germany, and Japan, and the modern international stage.

336-337 Survey of Theatrical Theory. Fall and spring terms. Credit four hours a term.

The development of the theory of the theatre in relation to theatrical practice. Fall term covers the period from the Greeks to the eighteenth century; spring term, the period from the eighteenth century to the present.

348 Playwriting. Fall term. Credit four hours. Previous study in play production recommended.

A laboratory for the discussion of student plays. Each student is expected to write two or three one-act plays, or one full-length play.

349 Advanced Playwriting. Spring term. Credit four hours. Prerequisite: consent of the instructor.

A continuation of 348.

361 Stagecraft. Either term. Credit four hours.

A survey of technical problems of stage production. Lectures and demonstrations on theatre structure and equipment, scene construction and painting, stage lighting and equipment, costume construction, and technical drawing. Practice in scene and costume construction, painting, and lighting in both laboratory and actual productions.

364-365 Stage Design I and II. Fall and spring terms. Credit four hours a term. Prerequisite: for 364, 361 or consent of the instructor; for 365, 364 or consent of the instructor.

Stage scenery design from the specifics of mass, space, and color to the completed theatrical design. Laboratory work with the designer in rendering, scene painting, basic drafting, decor, and lighting.

367-368 Costume Design I. Fall and spring terms. Credit four hours a term. Prerequisite for 368: 367 or consent of the instructor.

Stage costume design and construction. Practice in costume design, period research, and rendering techniques. Laboratory in practical costume construction.

438 Theatre Aesthetics. Fall term. Credit four hours. Prerequisite: two 300- or 400-level courses in drama.

The chief theories of dramatic production in relation to aesthetic principles.

467 Advanced Costume Design. Fall term. Credit and hours to be arranged. Prerequisite: consent of the instructor. May be repeated for credit.

Projects in stage costume design and rendering techniques. Emphasis on design of total production.

468 Advanced Costume Construction. Spring term. Credit and hours to be arranged. Prerequisite: consent of the instructor. May be repeated for credit.

Projects in application of historical patterning for the stage.

500 Introduction to Research and Bibliography in Theatre Arts. Fall term. Credit one hour.

A study of methods and materials relevant to the solution of problems in theatre arts including introduction to standard research sources, problems of translation, and preparation of theses and publications.

536 Seminar in Theatre Criticism. Spring term. Credit four hours. Prerequisite: consent of the instructor.

Selected theories of the drama from Aristotle to the present.

538 Seminar in Theatre Aesthetics. Fall term. Credit four hours. Prerequisite: consent of the instructor.

Selected topics in theatre aesthetics.

690 Theses and Special Problems in Drama and the Theatre.

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Graduate School Calendar, 1970-71

FALL TERM

	1970-71
Registration, new students	Sept. 10
Registration, continuing students	Sept. 11
Fall term instruction begins, 7:30 a.m.	Sept. 14
Last day for filing statement-of-courses forms and change-of-committee forms and for new students to file nomination-of-committee forms	Sept. 25
Last day for old students to take admission-to-candidacy examinations in order to have them considered as of the beginning of the term	Oct. 15
Citizenship recess:	
Instruction suspended, 1:10 p.m.	Oct. 24
Instruction resumed, 7:30 a.m.	Nov. 5
Last day for change of course registration	Nov. 20
Thanksgiving Day, a holiday	Nov. 26
Christmas recess:	
Instruction suspended, 4:30 p.m.	Dec. 22
Instruction resumed, 7:30 a.m.	Jan. 4
Fall term instruction ends, 1:10 p.m.	Jan. 9
Independent study period begins, 2:00 p.m.	Jan. 9
Final examinations begin	Jan. 13
Last day for completing all requirements for a January degree	Jan. 15
Final examinations end	Jan. 20
Intersession begins	Jan. 21

SPRING TERM

Registration, new and rejoining students	Jan. 28
Registration, continuing students	Jan. 29
Spring term instruction begins, 7:30 a.m.	Feb. 1
Last day for filing fellowship and scholarship applications for the following year	Feb. 1
Last day for filing statement-of-courses forms and change-of-committee forms and for new students to file nomination-of-committee forms	Feb. 12
Last day for old students to take admission-to-candidacy examinations to have them considered as of the beginning of the term	March 1
Spring recess:	
Instruction suspended, 1:10 p.m.	March 27
Instruction resumed, 7:30 a.m.	April 5
Last day for change of course registration	April 9
Spring term instruction ends, 1:10 p.m.	May 15
Independent study period begins	May 17
Final examinations begin	May 24
Last day for completing all requirements for a June degree	May 24
Final examinations end	June 1
Commencement Day	June 7

SUMMER

Summer Research period begins	June 2
Registration for Summer Session	June 21 (8-week)
	June 30 (6-week)
Last day for filing statement-of-courses forms and change-of-committee forms and for new students to file nomination-of-committee forms	July 7
Summer Session ends	Aug. 13
Last day for completing all requirements for September degree	Aug. 27
Summer Research period ends	Sept. 10

Graduate School Calendar, 1971-72 (Tentative)

FALL TERM	1971-72
Registration, new students	Sept. 9
Registration, continuing	Sept. 10
Fall term instruction begins, 7:30 a.m.	Sept. 13
Last day for filing statement-of-courses forms and change-of-committee forms and for new students to file nomination-of-committee forms	Sept. 24
Last day for old students to take admission-to-candidacy examinations in order to have them considered as of the beginning of the term	Oct. 14
Last day for change of course registration	Nov. 19
Thanksgiving recess:	
Instruction suspended, 1:10 p.m.	Nov. 24
Instruction resumed, 7:30 a.m.	Nov. 29
Fall term classes end, 1:10 p.m.	Dec. 18
Christmas recess	Dec. 18
Last day for completing all requirements for a January degree	Jan. 7
Independent study period begins	Jan. 3
Final examinations begin	Jan. 10
Final examinations end	Jan. 18
Interession begins	Jan. 19
SPRING TERM	
Registration, new students	Jan. 27
Registration, continuing students	Jan. 28
Spring term instruction begins, 7:30 a.m.	Jan. 31
Last day for filing fellowship and scholarship applications for the following year	Feb. 1
Last day for filing statement-of-courses forms and change-of-committee forms and for new students to file nomination-of-committee forms	Feb. 11
Last day for old students to take admission-to-candidacy examinations to have them considered as of the beginning of the term	Feb. 28
Spring recess:	
Instruction suspended, 1:10 p.m.	March 25
Instruction resumed, 7:30 a.m.	April 3
Last day for change of course registration	April 7
Spring term classes end, 1:10 p.m.	May 13
Independent study period begins	May 15
Last day for completing all requirements for a June degree	May 22
Final examinations begin	May 22
Final examinations end	May 30
Commencement	June 5
SUMMER	
Summer Research period begins	May 31
Registration for Summer Session	June 19 (8-week)
	June 28 (6-week)
Last day for filing statement-of-courses forms and change-of-committee forms and for new students to file nomination-of-committee forms	July 5
Summer Session ends	Aug. 11
Last day for completing all requirements for a September degree	Aug. 28
Summer Research period ends	Sept. 8