

CORNELL UNIVERSITY OFFICIAL PUBLICATION

Volume XXVII

Number 11

Announcement of the
College of Architecture

Architecture
Landscape Architecture
Painting & Sculpture

for 1936-37

Ithaca, New York
Published by the University
January 15, 1936

THE UNIVERSITY CALENDAR FOR 1936-37

1936

FIRST TERM

Sept.	21, <i>Monday</i> ,	Entrance examinations begin.	
Sept.	28, <i>Monday</i> ,	Registration and assignment of new students.	
Sept.	29, <i>Tuesday</i> ,	Registration and assignment of old students.	
Oct.	1, <i>Thursday</i> ,	Instruction begins at 8 A.M.	
Oct.	22, <i>Thursday</i> ,	Last day for payment of tuition for the first term.	
Nov.	25, <i>Wednesday</i> ,	Instruction ends at 6 P.M.	} Thanksgiving Recess
Nov.	30, <i>Monday</i> ,	Instruction resumed at 8 A.M.	
Dec.	19, <i>Saturday</i> ,	Instruction ends at 1 P.M.	} Christmas Recess

1937

Jan.	4, <i>Monday</i> ,	Instruction resumed at 8 A.M.	
Jan.	11, <i>Monday</i> ,	Founder's Day.	
Jan.	30, <i>Saturday</i> ,	Instruction ends.	
Feb.	1, <i>Monday</i> ,	Term examinations begin.	
Feb.	10, <i>Wednesday</i> ,	Term examinations end.	
Feb.	11, <i>Thursday</i> ,	A holiday.	

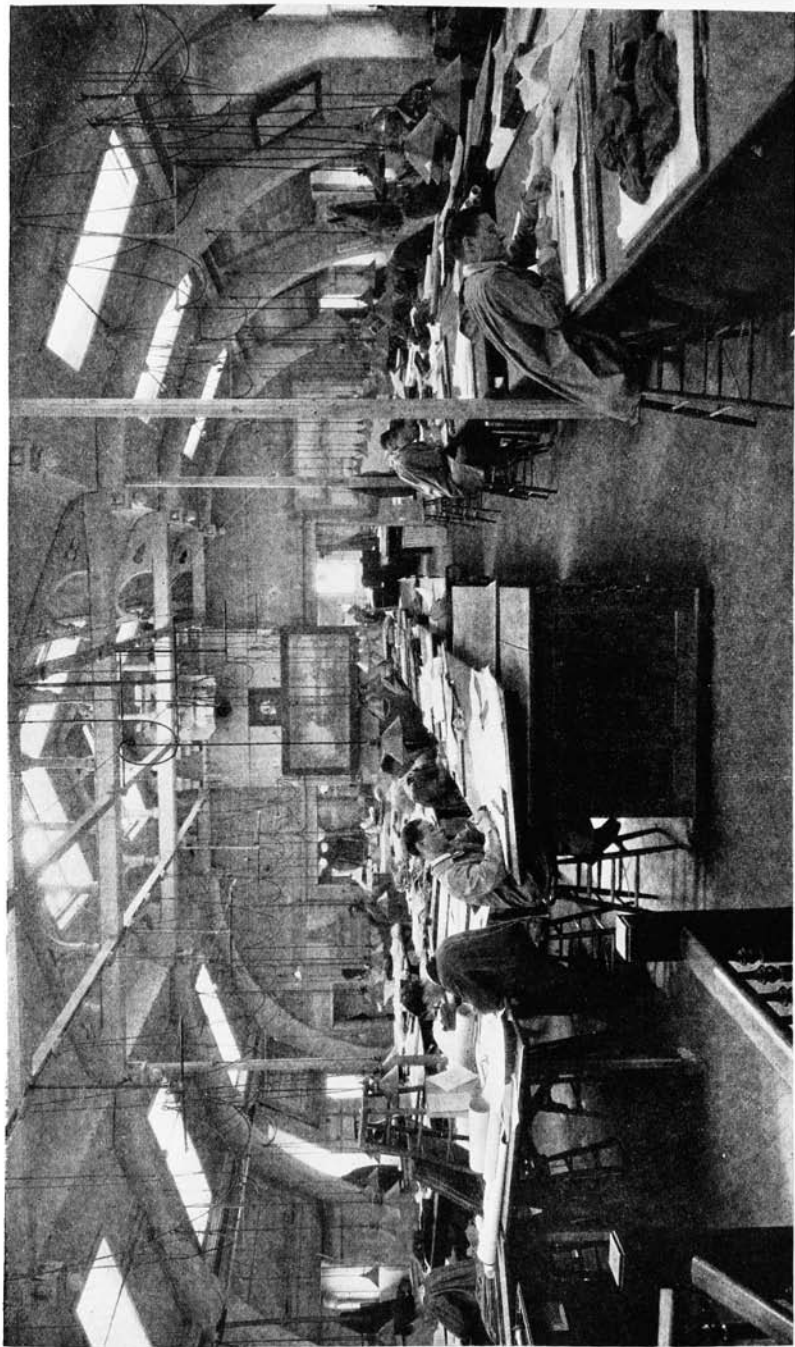
SECOND TERM

Feb.	12, <i>Friday</i> ,	Registration of all students.	
Feb.	15, <i>Monday</i> ,	Instruction begins at 8 A.M.	
March	8, <i>Monday</i> ,	Last day for payment of tuition for the second term.	
April	3, <i>Saturday</i> ,	Instruction ends at 1 P.M.	} Spring Recess
April	12, <i>Monday</i> ,	Instruction resumed, 8 A.M.	
May	— <i>Saturday</i> ,	Spring Day: a holiday.	
June	7, <i>Monday</i> ,	Term examinations begin.	
June	15, <i>Tuesday</i> ,	End of term examinations.	
June	21, <i>Monday</i> ,	COMMENCEMENT.	

THE COLLEGE OF ARCHITECTURE

THE FACULTY

- LIVINGSTON FARRAND, A.B., M.D., L.H.D., LL.D., President of the University.
- ALBERT RUSSELL MANN, A.M., D.Sc., D.Agr., LL.D., Provost of the University.
- GEORGE YOUNG, JR., B.Arch., F.A.I.A., Dean and Professor of Architecture.
- CLARENCE AUGUSTINE MARTIN, D.Sc., F.A.I.A., Professor of Architecture, Emeritus.
- OLAF MARTINIUS BRAUNER, Professor of Drawing and Painting.
- ALBERT CHARLES PHELPS, B.S., M.Arch., F.A.I.A., World War Memorial Professor of Architecture.
- FRANCKE HUNTINGTON BOSWORTH, A.B., F.A.I.A., Andrew Dickson White Professor of Architecture.
- CHRISTIAN MIDJO, Professor of Freehand Drawing and Modeling.
- RALPH WRIGHT CURTIS, B.S.A., M.S.A., Professor of Ornamental Horticulture.
- LEROY P. BURNHAM, M.S.Arch., A.I.A., Professor of Architecture.
- EUGENE DAVIS MONTILLON, B.Arch., F.A.S.L.A., A.I.A., Professor of Landscape Architecture.
- ALEXANDER DUNCAN SEYMOUR, B.S.Arch., A.I.A., Professor of Architecture.
- GILMORE D. CLARKE, B.S., F.A.S.L.A., Professor of Regional Planning.
- DONALD LORD FINLAYSON, M.A., Professor of Fine Arts.
- HUBERT E. BAXTER, B.Arch., Assistant Professor of Architecture.
- WALTER KING STONE, Assistant Professor of Drawing.
- WILLIAM MCLEISH DUNBAR, B.Arch., A.I.A., Assistant Professor of Architecture.
- EDWARD LAWSON, B.S., M.L.D., F.A.A.R., A.S.L.A., Assistant Professor of Landscape Architecture.
- HARRY P. CAMDEN, B.F.A., F.A.A.R., Assistant Professor of Sculpture and Drawing.
- JOHN A. HARTELL, B.Arch., Assistant Professor of Architecture.
- JOHN NEAL TILTON, JR., M.Arch., A.I.A., Assistant Professor of Architecture.
- KENNETH L. WASHBURN, M.F.A., Assistant Professor of Freehand Drawing.
- LUDLOW D. BROWN, M.Arch., Assistant in Architecture.
- REBECCA S. HARRIS, A.B., Librarian.
- MRS. E. G. DAVIS, Assistant Librarian.
- MILDRED E. VAN ALSTYNE, Secretary to the Dean.
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- BRYANT FLEMING, B.S., Alumni Adviser in Landscape Architecture.



THE MAIN DRAFTING ROOM IN WHITE HALL

THE UNIVERSITY

Cornell University is one of those institutions which owe their origin to the Morrill Land Grant Act of 1862. That act, coupled with the foresight and generosity of Ezra Cornell, brought about the incorporation of the University in 1865. Its plan of organization and its initial development were the work of its first president, Andrew D. White.

The policies of those two men, the period of foundation, and the geographical situation have combined to give this University a distinctive character, related both to the older universities of the East on the one hand and to those of the Middle West on the other. The terms of the Morrill Act emphasized instruction in "agriculture and the mechanic arts," but at Cornell the foundations were made as broad as the whole field of learning. In the humanities and the sciences a strong faculty was established and from time to time other faculties have been added. Along with Arts and Sciences, there are now faculties of Agriculture, Architecture, Engineering, Home Economics, Law, Medicine, and Veterinary Medicine, and a Graduate School.

In recent years a plan of selective admission has kept the number of students nearly constant—about six thousand. The faculty numbers nine hundred and seventy-five professors, assistant professors and instructors. Cornell is therefore one of the larger universities but not among the largest.

Ithaca is in the justly celebrated Finger Lakes region of Central New York State. The town, of about twenty thousand, built originally on level land at the head of Cayuga Lake, now covers also the slopes of hills on three sides. The country round about is rolling, dotted with lakes and cut by gorges characteristic of this section. Elevations vary from four hundred to two thousand feet above sea level. By rail, Ithaca is seven hours from New York City and twelve hours from Chicago. The University is on the summit of one of the hills which overlook the town and the lake. From the 350-acre campus there are wide views over the hills, the valley, and the lake. The value of such a setting in an educational process is imponderable, but in the experience of generations of Cornell students it is rated highly.

Each of the colleges of Cornell University is a more or less self-contained unit, free to work out its own ideas in its own way, but nevertheless with the full support and cooperation of the University as a whole and of the other colleges. A student in any of the colleges has at his disposal the common facilities of the University, such as the playgrounds, the Infirmary, the University Library, etc. He is also free to elect work in any college of the University within such limits as may be set by the faculty of his own college. The work of the College of Architecture is so planned as to encourage its students to make the

fullest use of the University as a whole and to allow each student to do this in the way best suited to his own needs.

THE COLLEGE OF ARCHITECTURE

The College was founded in 1871. For many years it offered training in Architecture only. During that period the college grew steadily in number of students and teachers and gathered an excellent library. By 1917 the students numbered 160 and the Faculty thirteen. In 1922 the Department of Landscape Architecture, hitherto and since its foundation in 1904, a department of the College of Agriculture, was transferred to the College of Architecture. The union thus effected has stimulated and enriched all the work of the College, benefiting equally the work in architecture and that in landscape architecture. Courses in Painting and Sculpture, organized in 1921, have likewise demonstrated the value of related lines of work carried on in intimate contact. By 1922 the number of the students had increased to the practicable and very nearly to the desirable limit. Since that time limitation of numbers has been in effect.

The College has about fourteen hundred alumni, many of whom have attained high rank in their professions, and who give the College spirited support. As students they were of wide geographical distribution, and they are now to be found in all parts of the United States and in foreign countries.

The College of Architecture is one of the smaller colleges of the University, having twenty teachers and about one hundred and fifty students. Personal relationship between student and teacher is so easy and constant that the student enjoys particular consideration of his personal needs. Because much of the College's work is of a creative sort, instruction is necessarily in the form of individual criticism. As a natural result the College has the character of a small, compact, intimate group with well focused objectives.

The College is a professional school and its courses lead to professional degrees, but over and above this it is an educational institution committed to the idea that technical proficiency alone is wholly inadequate, even for strictly professional needs. This idea governs not only the framework of the curricula but also the way in which each subject, whether technical or not, is presented and the manner in which the whole is administered.

Relations between this College and the others in the University (notably Arts and Sciences, Engineering, and Agriculture) are intimate, cordial, and reciprocal. Thus students in any of the colleges have the advantage not only of the best instruction obtainable in a given subject, but also of widely varying points of view.

In the courses in Design the collaborative idea is stressed wherever possible. Problems involving the joint efforts of the Architect, the Landscape Architect, and the Painter or Sculptor are given from time to time, but more important is the fact that the students are constantly working side by side and frequently under the same instruction.

As between Architecture and Landscape Architecture the correlation of the work is close and very thorough. Since the fundamentals of these two professions are in the main the same, the curricula leading to the degrees in Architecture and Landscape Architecture include much of the same work. The first year in the two courses is identical. The work in design is the same for three terms. Thereafter certain problems are given jointly and from time to time the students work in collaboration. The professors of Architecture are constantly in touch with the Landscape students and the professors of Landscape Architecture with the students in Architecture. Since the courses in Architecture and Landscape differ but little throughout the first three years and because of the flexibility of both courses, it is possible for the student to vary his objective as his developing capacities and tastes may indicate.

The student's work ordinarily is planned to lead up to one of three professional degrees. It is inadvisable for anybody not vitally interested to attempt the work of any of these courses of study. Typical curricula are given on pages 15-20. In each case five years is the normal period, though students with exceptionally thorough preparation can fulfill the requirements in somewhat less time. While individual cases vary, some students entering the College after taking an A.B. degree have been able to complete the work for the professional degree in three and one-half years. Normally about thirty per cent. of the entering class will have had previous college experience of some sort. The rate of a student's progress in the College is determined in large part by the quality of his work and not alone by the quantity of it. The amount of work that a student is permitted to carry each term is dependent upon the excellence of his scholastic record, hence the actual time required for the completion of the course will depend upon his ability as indicated by that record. The time element in the preparation for any creative profession is such, however, that crowding of the work is deemed unwise.

In each of the courses about twenty per cent. of the work is elective. Elective subjects are selected by the student himself, under advice and approval by a faculty committee. Courses may be chosen from the offerings of any college in the University. This work is intended to broaden the student's outlook and to develop whatever natural interest he may have in some field or fields not directly related to his technical work. A minor part of the elective program may be used to strengthen the student in any one department of his technical work in which he may prove to be especially interested and able or somewhat deficient, as the case may be.

In a general way the first year of each curriculum is designed to establish a foundation for the major subjects of the technical program. Thereafter elective work is introduced into the program, forming a sequence through the last four years. Thus the first-year student is given the best opportunity to determine his fitness for the work, and his chance to develop other interests comes when his increasing maturity makes it most valuable.

The student entering the College finds himself in an atmosphere and a life that is distinct and different from that of his other contacts. There is a spirit of solidarity within the College which is nevertheless not one of isolation. The standards, though high, are not rigid. The student body is a hard working, hard playing unit having free and easy contacts with other departments of University life.

BUILDINGS AND EQUIPMENT

The College occupies the third and fourth floors and a portion of the basement of White Hall, the top floor of Franklin Hall, and parts of Morse Hall. The college offices, the college library, the lecture room, and exhibition rooms occupy the third floor of White Hall. A suite of three drafting rooms, opening together so as to form virtually a single room 45 x 156 feet, occupies the entire fourth floor. On the top floor of Franklin Hall and in Morse Hall are well lighted studios devoted to the work in freehand drawing, painting, and modeling.

The college library is unusually well equipped as a working collection and for research. The student is permitted and encouraged to use the books, photographs, and drawings freely.

A carefully selected collection of about thirty thousand lantern slides is used constantly in connection with the lectures on history, theory, and construction.

The College also maintains an art gallery in Morse Hall for the temporary exhibition of paintings, etchings and other prints, architectural drawings and photographs, and examples of various types of applied art. It is the aim of the college to bring to all students of the University the benefits of contact with the work of eminent artists, architects, and artisans.

In the exhibition rooms in White Hall are shown current student work in design, painting, and drawing.

SUMMER SESSION

In the summer of 1936 a course in Design will be offered which will emphasize the interdependence of Architecture and Landscape Architecture. The number of students will be limited. Only those having had three or more years training in design will be accepted.

Courses in Drawing and Painting will also be offered.

The Summer Session opens June 27 and closes August 8.

Particulars concerning these courses are given in the Announcement of the Summer Session.

INFORMAL STUDY

Students who are admitted with a considerable amount of advanced credit, and those who have done work of especially high grade in this College, may be admitted to an Informal Study Course designed to facilitate progress. Admission to an Informal Study Course may be granted provisionally by the Committee on Admissions, but in every

case must be confirmed by the Faculty. A student admitted to such a course is put under the personal direction of some member of the Faculty. He may then depart from strict curricular requirements in such main branches as the Faculty may designate in order to do special work under his director. The student's progress is measured from time to time by the Faculty and commensurate credit is voted towards the degree.

GRADUATE STUDY

The instructing staff, drafting rooms, library, and studios of the College are available for students wishing to do graduate work. The facilities of other departments of the University are also open to such students as their programs may require.

The degrees of Master of Architecture, Master of Landscape Architecture, and Master of Fine Arts are granted upon the fulfillment of the conditions prescribed by the Graduate School.

The requirements for advanced degrees are based, not upon courses or credits, but upon the completion of a definite period of residence, the presentation of a satisfactory thesis or essay, and the passing of an examination. The student is expected to show originality and independence in his graduate work.

In order to be admitted to the Graduate School as a candidate for one of the above degrees, a student must be qualified under the general rules of the Graduate School and further must have had a minimum training substantially equivalent in quantity or quality to that required for the baccalaureate degree as given at this University for major work in the respective historic, theoretic, or creative field involved. Admission of all candidates is subject to the approval of the Executive Committee of the Division of Architecture and Fine Arts on the basis of the candidate's credentials and his plan of study.

ADMISSION TO THE COLLEGE

The requirements and rules of admission will be found in the General Information Number, a copy of which will be sent on request by the Secretary of the University.

Prospective students should address the Director of Admissions, Cornell University, Ithaca, N. Y., asking for forms to be used in making application for admission.

Applications for admission in September should be received by June 1. For admission in February applications should be received by January 1. Most classes, particularly those of the first year, are run on a yearly basis. It is therefore difficult at midyear to arrange satisfactory schedules for beginners.

ADMISSION TO ADVANCED STANDING

A student who has already attended a technical school or other institution of collegiate rank may be admitted at the beginning of the first or, if a satisfactory schedule of work can be arranged, at the be-

ginning of the second term. Such an applicant is required to fulfill all academic and other entrance requirements.

In addition he should file with the Director of Admissions of the University an official transcript of record of his work at the institution already attended together with a certificate of honorable dismissal therefrom. He should also send a catalogue of the institution, writing his name thereon, and marking the courses which he has taken as listed in the official transcript.

Advanced credit for courses in the College of Architecture is given only upon examination by the department concerned but a preliminary ruling will be made by the Committee on Admissions on the evidence submitted.

ADMISSION OF SPECIAL STUDENTS

Special students are primarily those who have had advanced experience in practice and whose preparation will not admit them as candidates for a degree. They must be at least twenty-one years of age.

Special students in Architecture or Landscape Architecture must have had a high school training or its equivalent, including a working knowledge of plane geometry and solid geometry and of algebra through quadratic equations. They should have had at least three years' practical experience or its equivalent and submit with their applications examples of their draftsmanship, and credentials from employers or others acquainted with their work.

Special Students in Fine Arts are admitted only on evidence of ability in drawing, painting, or modeling of such outstanding quality as to set a standard for the regular students. Each application will be considered on its merits but the applicant must present evidence to show, first, qualifications and proved ability to do advanced work in some branch of the fine arts; and second, general academic training preferably equivalent to graduation from an institution of collegiate rank but in no case less than the equivalent of graduation from an approved high school. If admitted on the lesser requirement the student will be expected to take, in addition to drawing, painting, etc., such general work as the Faculty may prescribe.

Special students may be admitted at the beginning of either term, but applications should be filed by June 1, or January 1. See also the General Information Number for requirements concerning registration fee and vaccination certificate. A high scholastic performance is expected of special students and is made a condition of their remaining enrolled in the college. The college does not issue a certificate for special work.

TUITION, FEES, AND LIVING CONDITIONS

Information concerning tuition, fees, living conditions, University dormitories, self-help, etc., is given in the General Information Number. This publication gives also various other items of information

applicable to all students in the University. It should be read in connection with this announcement.

FELLOWSHIPS: SCHOLARSHIPS: PRIZES

For information concerning scholarships that are open to students of this college in common with other students of the University, consult the General Information Number.

A University Fellowship of the value of \$400 with free tuition is awarded annually for graduate study in Architecture or Landscape Architecture.

Three Graduate Scholarships giving free tuition in the Graduate School are awarded annually for graduate study in Architecture, Landscape Architecture, or Fine Arts.

Five Scholarships of a value of \$250 each are awarded annually to graduates of four-year courses in Architecture, Landscape Architecture, or Fine Arts who are not eligible for admission to the Graduate School (see page 9).

The Charles Goodwin Sands Memorial Medal, founded in 1900 by the family of Charles Goodwin Sands of the class of '90, is awarded for work of exceptional merit in any of the advanced courses in the College of Architecture. Two grades of medals are recognized, the silver medal and the bronze medal.

The Clifton Beckwith Brown Memorial Medal was established in 1901 by John Harkness Brown in memory of his brother Clifton Beckwith Brown, killed on the field of battle at San Juan Hill. A silver replica is awarded to the senior in the College of Architecture attaining the highest standing in design during his senior year, and a bronze replica to the senior taking second place. These medals are not awarded, however, solely for order of merit, the award being withheld unless the standard reached in design is considerably higher than that required for the graduation.

The Student Medal of the American Institute of Architects is awarded to the member of the graduating class in architecture whose record is the best throughout the entire course.

Through the Beaux-Arts Institute of Design numerous prizes are offered for excellence of work in design. These prizes are open to students in the College of Architecture who frequently compete for them with success and distinction to themselves and to the college.

The Fuertes Memorial Prizes in Public Speaking were founded in 1912 by Charles L. Baker, a graduate of the School of Civil Engineering of the class of 1886. Three prizes, one of \$100, one of \$30 and one of \$15, are awarded annually to members of the junior and senior classes in the Colleges of Engineering and Architecture for proficiency in public speaking.

The Paul Dickinson Prize, established in 1927 by Miss Dorothea C. Dickinson, '23, in memory of her father, consists of the income of a

fund of \$500 and is awarded to the student in the first-year class of the College of Architecture whose general record is the best.

The Baird Prizes are offered, one of \$25 and one of \$15, as first and second awards in a special sketch problem competition for Juniors and Seniors in the College of Architecture. The problem, lasting six days, is given during the early part of the second term and is of a decorative nature. Established in 1927, the gift of Mrs. M. Z. Baird, the income (or, in the discretion of the Faculty of the College of Architecture, the principal) to be used for the purposes of that college; designated as a prize fund by the Faculty of that College in 1927.

The Edward Palmer York Memorial Prizes in Sophomore Design are given for the best solution of the last one day sketch problem of each term. The prizes, of \$20 each, are from the income of a gift of Mrs. Edward Palmer York in memory of her husband, who graduated from the College of Architecture with the class of 1889.

The Gargoyle Prize of \$10, offered annually by the Gargoyle honorary architectural society, is awarded to the undergraduate member of this college who exhibits at the Summer Sketch Exhibit held in October the best group of sketches or measured drawings done in any medium by him during the previous summer. Sketches and drawings contributed to this exhibition should be left with the college librarian at registration time in September.

The Robinson Prize, established in 1936 by C. D. Robinson, Jr., '30. The prize, of \$25, is to be awarded annually for superior advanced work in the History of Architecture.

The following Medals and Prizes were awarded for the year 1934-35:

University Fellowship: Awarded for the year 1935-36 to Benjamin J. Rabe, B.Arch. (Cornell).

Graduate Scholarships: Awarded for the year 1935-36 to Harold E. Atkinson, B.L.A. (Cornell); Richard J. Marlitt, A.B. '33, B.Arch. '34, (Univ. of Oregon); and Michal Kunic, Prague State School of Architecture, '34.

\$250 Scholarships: Awarded for the year 1935-36 to John M. Crowell, B.Arch. (Univ. of Florida); Kenneth S. Buchanan, B.S. '35 (Texas A & M); and Miss Nelle Tobias, B.S. (Oregon State).

Charles Goodwin Sands Medal (Silver): James McK. Lister.

Charles Goodwin Sands Medals (Bronze): Arnliot R. Brauner, Charlotte A. Dowrie, Natalie M. Firestone, Paul R. Henkel, II, Arthur G. Odell, Benjamin J. Rabe, Carl D. Schlachter, and Robert A. Wilson.

Clifton Beckwith Brown Medal (Bronze): Robert S. Kitchen.

The Student Medal of the American Institute of Architects: H. Roger Williams.

The Fuertes Memorial Prize in Public Speaking (Third Prize): Serge Peter Petroff.

The Paul Dickinson Prize: Not awarded in 1934-35.

The Baird Prizes: (First) Arthur G. Lavagnino; (Second) Serge Peter Petroff.

The Edward Palmer York Prize: Earl W. Ohlinger.

The Gargoyle Prize: Merton Wayne Stoffle.

In addition to the above list, awarded by this Faculty, the following prizes were awarded to students in the College by outside juries:

The Fellowship in Landscape Architecture of the American Academy in Rome: James McK. Lister.

The Second Prize in the Collaborative Competition sponsored by the Alumni of the American Academy in Rome to a team composed of James W. Breed (Architect), Louis J. Perron (Landscape Architect), and Adelaide E. Briggs (Painter).

ARCHITECTURE
LANDSCAPE ARCHITECTURE
PAINTING & SCULPTURE

On the following pages are given the requirements for the several degrees administered by this College. In each case the requirement is for 153 hours exclusive of the optional entrance subjects and the University requirement in Hygiene and Military Drill.

ELECTIVE COURSES

In each of the courses of study offered, approximately one-fifth of the required work is elective. No restriction in the choice of electives is made except that each student, before starting his elective work, is required to file with the College office his entire program of elective study, approved by some member of the Faculty.

THE COURSE IN ARCHITECTURE

This course, which is designed to give a training adequate for the general practice of Architecture, leads to the degree of Bachelor of Architecture. The course regularly prescribed is as follows:

[NOTE. Of these four subjects, any of which have been presented for entrance need not be taken in the University: Trigonometry (Mathematics 3, three hours), Advanced Algebra (Mathematics 2, three hours), Physics (Physics 3 and 4, six hours), and Chemistry (Chemistry 101 and 105, six hours).]

		<i>Courses of Study</i>		<i>Hours</i>	
				<i>First Term</i>	<i>Second Term</i>
**FIRST YEAR	Elementary Design, 110.....			4	3
	Freehand Drawing, 310.....			3	3
	Descriptive Geometry, 510.....			3	3
	Mathematics, 2 or 3.....			3	0
	Mathematics, 8.....			0	3
	Language*.....			3	3
				16	15
**SECOND YEAR	Architectural Design, 111.....			4	4
	Mechanics of Materials, 210.....			0	3
	Modeling, 330.....			2	or 2
	Elements of Color, 340.....			2	or 2
	History of Architecture, 410-411.....			3	3
	Perspective, 511.....			0	1
	Mathematics, 8.....			3	0
	Electives.....			3	3
				15	16
THIRD YEAR	Architectural Design, 111-113.....			4	8
	Mechanics of Materials, 210.....			3	0
	Structural Design, 211.....			0	3
	Life Drawing, 320.....			2	or 2
	History of Architecture, 412.....			3	0
	Materials and Construction, 610.....			3	3
	Testing Materials, C. E. 227.....			0	1
	Elective.....			2	0
				17	15
FOURTH YEAR	Architectural Design, 113.....			0	8
	Structural Design, 212.....			2	0
	History of Art, 414.....			2	2
	Applied Design, 611.....			9	0
	Concrete Construction, C. E. 280.....			0	3
	Elective.....			3	0
	History 413.....			0	3
				16	16
FIFTH YEAR	Architectural Design, 113, and Thesis, 114.....			8	8
	Life Drawing, 321-322.....			2	2
	Elective.....			5	5
				15	15

*This requirement may be satisfied by credit earned in courses in English or in a foreign language, as approved for individual cases.

**The University requirement in Hygiene and Military Drill must be met in these years in addition to the courses listed.

THE COURSE IN LANDSCAPE ARCHITECTURE

The course leading to the degree of Bachelor of Landscape Architecture is outlined on the opposite page. Its aim is to give a broad basic training in the arrangement of out-of-door space for human use.

The primary emphasis is upon the instruction in Design. This is so planned as to give recognition to both the utilitarian and the aesthetic factors involved. Technical training is given in Horticulture, Engineering and Construction, Freehand Drawing, and Architecture. The knowledge gained in the study of these auxiliary subjects, as the student progresses, is utilized in the solution of problems of design. The study of horticulture, plant materials and planting design, being of great importance to the landscape architect and requiring some maturity of mind for its profitable pursuit, is put in the latter half of the curriculum. In Construction, the student takes courses in the College of Architecture and others in the School of Civil Engineering.

All the instruction in Landscape Architecture is closely related to that in Architecture (see page 15), and also to that in Regional Planning (see page 21). The landscape architect has of late years become increasingly concerned with public works, as in the planning of parks, in highway design, and in the development of recreational areas. For this reason the curriculum is made flexible enough to enable the student to include the work in regional planning.

The American Society of Landscape Architects, through its committee on education, has drawn up and published a "minimum educational requirement for professional schools of landscape architecture." The course which is outlined on the opposite page, conforming in content to that requirement, offers very much more than the minimum of instruction and training suggested by the Society.

Correspondence with prospective students throughout a period of years has shown that many have no clear idea either of the function of the Landscape Architect or the training needed for the practice of his profession. Two distinct fields are open to the student interested in the treatment and maintenance of out-of-door spaces, and a distinct course of training for work in either of these fields is provided at Cornell.

The one field is the general practice of Landscape Architecture as a profession, or the designing of out-of-door spaces for human use in the broadest sense, and the corresponding course of training, given mainly in the College of Architecture, emphasizes design, mathematics, and construction.

A course of four years, preparatory to work in the second field, is given in the College of Agriculture by the Department of Floriculture and Ornamental Horticulture. The instruction in *floriculture* is designed for (1) those who intend to make some branch of commercial flower-growing their life work; (2) those who plan to enter a retail business in floriculture; (3) those who are interested in amateur flower-growing for pleasure and home decoration; (4) those who plan to take up some line of work on private estates or in city parks. The instruction in *ornamental horticulture* is designed primarily to fit students for nursery management, that is, the propagation, growing, and selling of ornamental plants, and for nursery service, the planting of small properties; there is also included training for park service, for the management of private estates, and for work such as is done by planting superintendents for landscape architects. Persons interested primarily in the instruction in floriculture or ornamental horticulture can best obtain further information by consulting the Announcement of the New York State College of Agriculture.

The course in Landscape Architecture and that in Floriculture and Ornamental Horticulture are each strengthened by the presence of the other on the same campus. The two faculties cooperate and each regularly gives instruction to students in both fields.

The Course Leading to the Degree of
BACHELOR OF LANDSCAPE ARCHITECTURE

[NOTE. Of these four subjects, any which have been presented for entrance need not be taken in the University: Trigonometry (Mathematics 3, three hours), Advanced Algebra (Mathematics 2, three hours), Physics (Physics 3 and 4, six hours), and Chemistry (Chemistry 101 and 105, six hours).]

<i>Courses of Study</i>		<i>Hours</i>	
		<i>First Term</i>	<i>Second Term</i>
**FIRST YEAR	Elementary Design, 110.....	4	3
	Freehand Drawing, 310.....	3	3
	Descriptive Geometry, 510.....	3	3
	Mathematics, 2 or 3.....	3	0
	Mathematics, 8.....	0	3
	Language*.....	3	3
		16	15
**SECOND YEAR	Landscape Design, 150a.....	4	4
	Mechanics of Materials, 210.....	0	3
	Life Drawing, 320	2	2
	Elements of Color, 340		
	Modeling, 330	3	3
	History of Architecture, 410-411.....		
	Perspective, 511.....	0	1
	Mathematics, 8.....	3	0
	Surveying, C. E., 110.....	3	0
	Electives.....	0	3
		15	16
SUMMER SESSION	Woody Plant Materials A8.....	4	
	Herbaceous Plant Materials A3.....	2	
THIRD YEAR	Landscape Design, 150b.....	4	4
	Mechanics of Materials, 210.....	3	0
	History of Architecture, 412.....	3	0
	History of Landscape Architecture, 450.....	0	3
	Plant Materials, 8.....	4	4
	Landscape Engineering, C. E., 212 or 299.....	0	3
	Electives.....	3	3
		17	17
FOURTH YEAR	Landscape Design, 151.....	8	8
	Planting Design, 650.....	2	2
	Landscape Engineering, C.E., 299 or 212.....	0	3
	Electives.....	6	3
		16	16
FIFTH YEAR	Landscape Design, 151 and Thesis, 152.....	8	8
	Landscape Construction, 660.....	2	0
	Concrete Laboratory, C.E., 229.....	1	0
	Electives.....	3	0
		14	8

*This requirement may be satisfied by credit earned in courses in English or in a foreign language, as approved for individual cases.

**The University requirement in Hygiene and Military Drill must be met in these years in addition to the courses listed above.

THE COURSE IN FINE ARTS

The curriculum shown on page 20 leads to the degree of Bachelor of Fine Arts. Its purpose is to provide a coordinated technical and cultural education.

In this curriculum the student takes either of two options, one in painting or one in sculpture.

The first year's work, and much of that in subsequent years, is common to both options. Two-fifths of the entire curriculum is non-technical. In the large group of electives (thirty-five hours) the student is encouraged to explore a range of subjects and to choose those best fitted to his individual needs.

Collaborative work is encouraged, problems requiring the work of painter, sculptor, landscape architect, and architect being given from time to time.

The thesis culminates the work both in composition and in drawing or modeling. It is the final test of the student's ability in these courses and determines his fitness for the degree.

The Course Leading to the Degree of

BACHELOR OF FINE ARTS

		<i>Courses of Study</i>		<i>Hours</i>	
				<i>First Term</i>	<i>Second Term</i>
**FIRST YEAR	Composition, 300.	.....	2	2	
	Freehand Drawing, 310.	.....	3	3	
	History of Painting and Sculpture, 425.	.....	3	3	
	Descriptive Geometry, 510.	.....	3	3	
	Perspective, 326.	.....		1	
	Language*	.....	3	3	
			14	15	
**SECOND YEAR	Composition, 301.	.....	2	3	
	Second Year Drawing, 311.	.....	3	3	
	Color, 340, 341 <i>or Modeling</i> , 330***.	.....	2	2	
	History of Architecture, 410, 411.	.....	3	3	
	Anatomy, 24.	.....	3	3	
	Electives.	.....	3	2	
			16	16	
THIRD YEAR	Composition, 302.	.....	3	3	
	Painting, 312 <i>or Modeling</i> , 331***.	.....	4	6	
	Modeling, 330 <i>or Color</i> , 340.	.....	2		
	History of Architecture, 412.	.....	3		
	Historic Ornament, 470.	.....		3	
	Electives.	.....	3	3	
			15	15	
FOURTH YEAR	Composition, 303.	.....	4	4	
	Painting, 313 <i>or Modeling</i> , 332***.	.....	6	6	
	Electives.	.....	6	6	
			16	16	
FIFTH YEAR	Composition, 304.	.....	4		
	Painting, 314 <i>or Modeling</i> , 333***.	.....	6		
	Thesis, 350.	.....		8	
	Electives.	.....	6	6	
			16	14	

*This requirement may be satisfied by credit earned in courses in English or in a foreign language, as approved for individual cases.

**The University requirement in Hygiene and Military Drill must be met in these years in addition to the courses listed above.

***Students majoring in sculpture take the courses listed in italics.

REGIONAL AND CITY PLANNING

Instruction in Regional Planning is given by the Colleges of Engineering and Architecture in cooperation. Details of these courses and hours are given on page 39.

The work does not recognize Regional or Town Planning as a separate profession, and hence no attempt is made to give the student technical proficiency in planning, nor even any large array of factual information.

The courses deal in a broad way with the adaptation of man's environment to suit his needs and desires. A study is made of past and possible future achievement in the field of planned and controlled developments of public and private properties as the necessary basis for better living.

The increased use of leisure time, the importance of public works projects, zoning, land use, and other pressing problems having to do with the welfare of large masses of people are considered in the light of their bearing on planning practice. Emphasis is placed on the fact that historically and logically, the problems presented by large scale planning are so difficult that no one professional group is competent to comprehend them, much less to solve them. It is shown that actual achievement must finally rest on the united efforts of groups composed of people of diverse interests and widely varying training. The courses offered are therefore open to upperclassmen and graduates in all colleges of the University. The presentation of the material is such that special technical knowledge is unnecessary.

The value of these courses to a given student may be enhanced by a well selected program of study in other departments of the University. Students will be assisted in making such selections in anticipation of the work in Regional Planning or to accompany or to follow it.

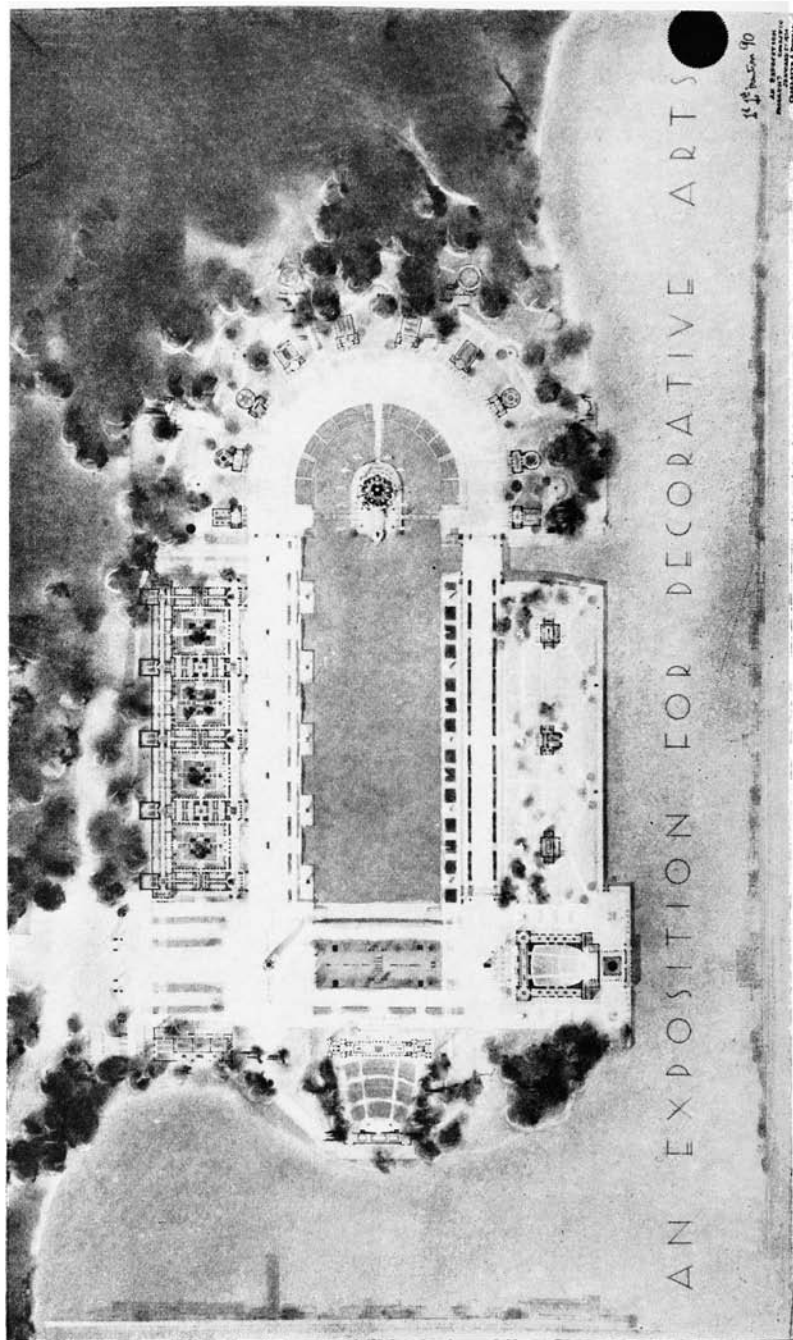
VISITING LECTURERS IN REGIONAL AND CITY PLANNING IN 1935 AND 1936

From the Cornell Faculty. College of Agriculture: M. P. Catherwood, R. S. Hosmer, F. B. Howe, T. E. LaMont, G. F. Warren. College of Architecture: F. H. Bosworth, A. C. Phelps. College of Arts and Sciences: R. E. Cushman, O. D. von Engeln. College of Engineering: W. L. Conwell.

From Outside. Dr. Carol Aronovici, Professor of City Planning, Columbia University; Russell Van Nest Black, State Planning Consultant, Pennsylvania, New Jersey, and Virginia; J. Franklin Bonner, Monroe County (N. Y.) Planning Board; Philip Cornick, Institute of Public Administration; E. S. Cullings, Consulting Engineer; Charles W. Eliot 2d, Executive Officer, National Resources Board; Dr. Werner Hegemann, Professor of City Planning, Columbia University; Wayne D. Heydecker, Consultant, Regional Plan Association, New York City; Harold M. Lewis, Engineer, Regional Plan Association, New York City; M. J. Madigan, Consulting Engineer, Henry Hudson Park-

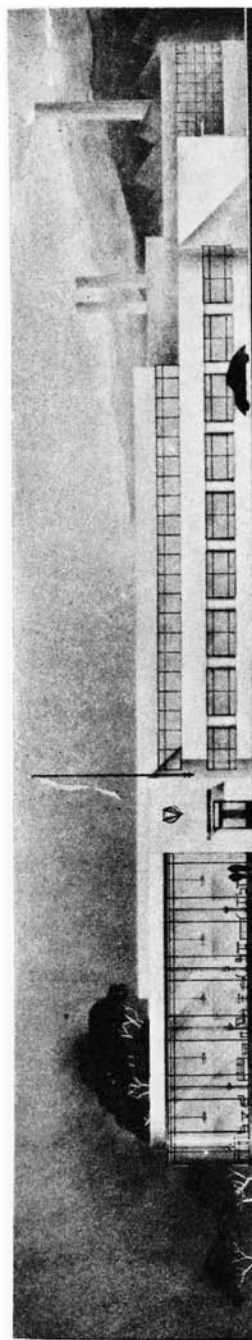
way Authority and Riverside Drive Improvement Project, under New York City Park Department; Lawrence M. Orton, General Secretary, Regional Plan Association, New York City; Clarence A. Perry, Russell Sage Foundation, New York City; R. Harold Shreve, Chief Architect, Williamsburg Housing Project, New York City; Dr. Robert Whitten, Planning Consultant, New York State Planning Council.

RECENT EXAMPLES OF WORK
DONE BY STUDENTS
IN REGULAR COURSES

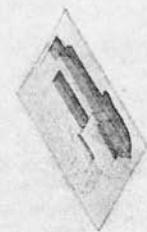
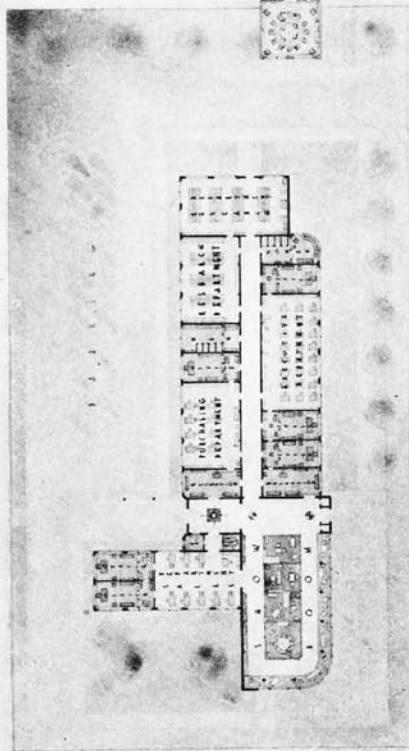


SENIOR DESIGN

CHARLOTTE A. DOWRIE



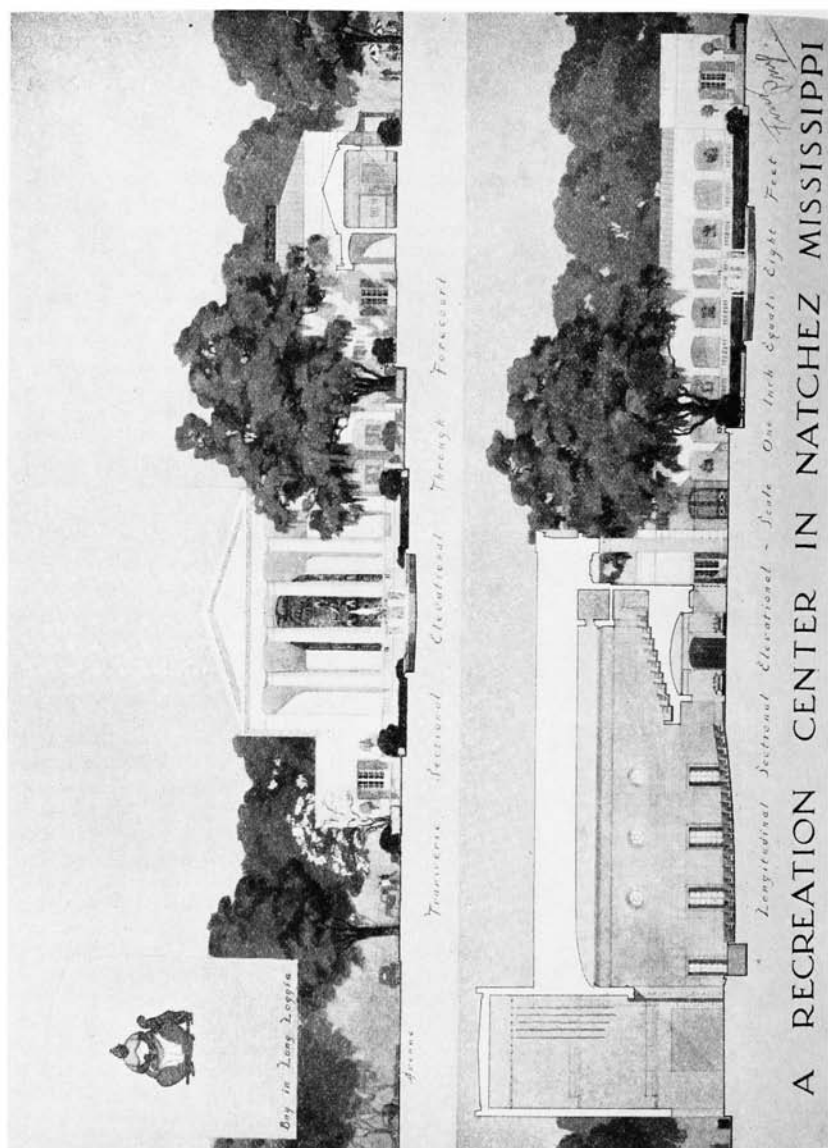
AN OFFICE AND SHOWROOM BUILDING FOR A FACTORY GROUP



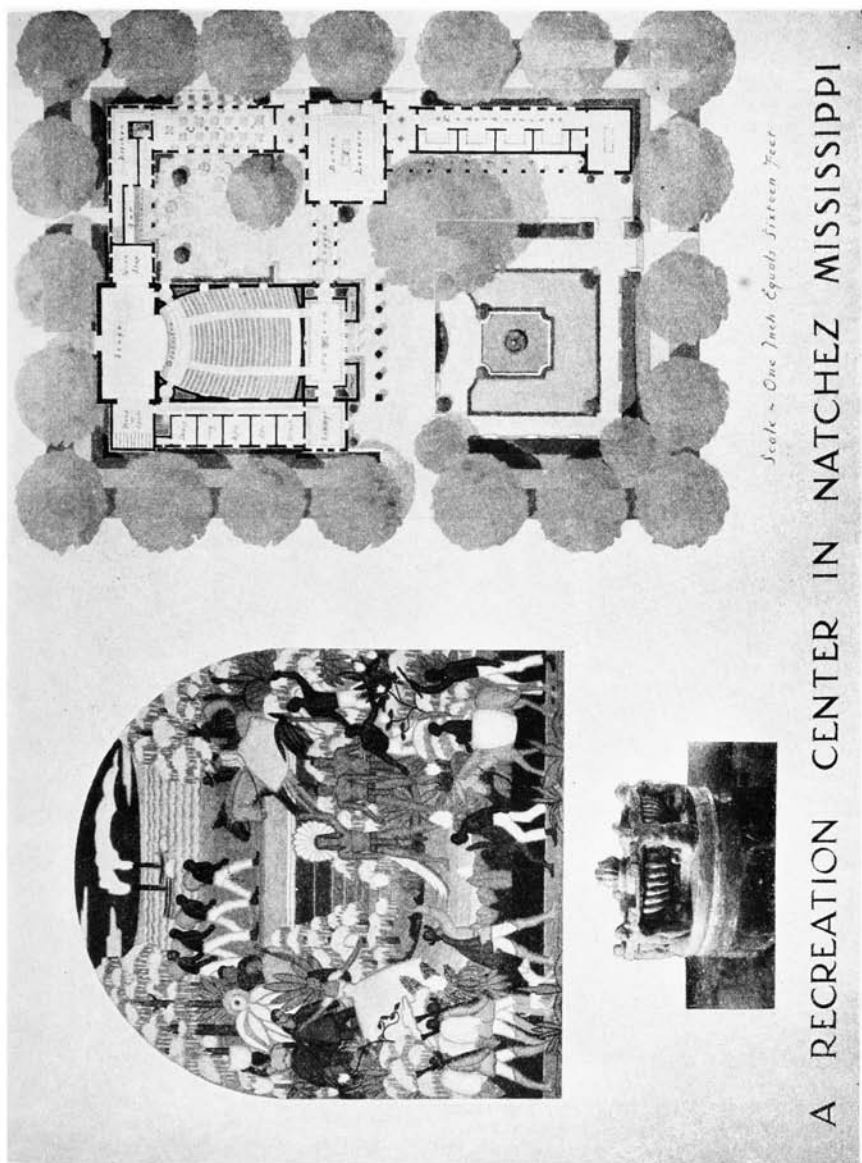
Je 1st March. 9c
H C

SOPHOMORE DESIGN

A. GELLER

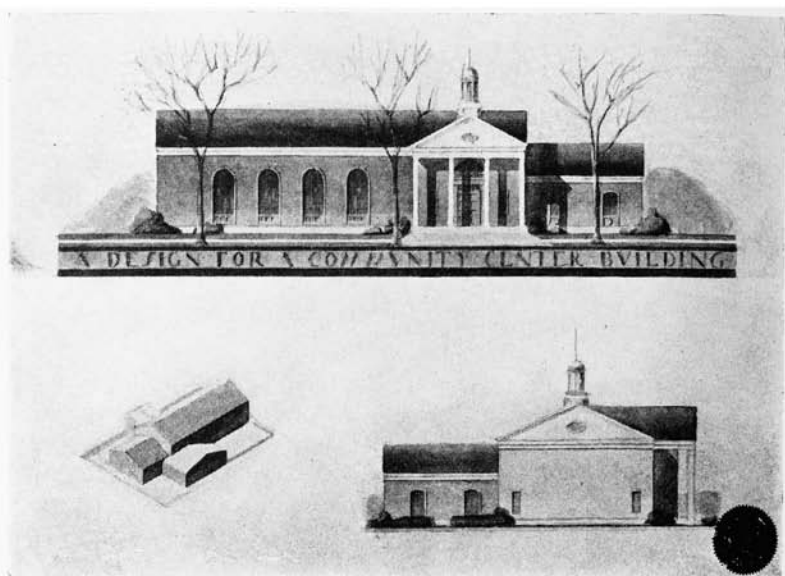


DESIGN BY ARCHITECT, LANDSCAPE ARCHITECT
 B. J. RABE, *Architect*; R. S. KITCHEN, *Landscape Architect*
 This Design received the First Prize Award
 New York City in 1936 by the Alumni



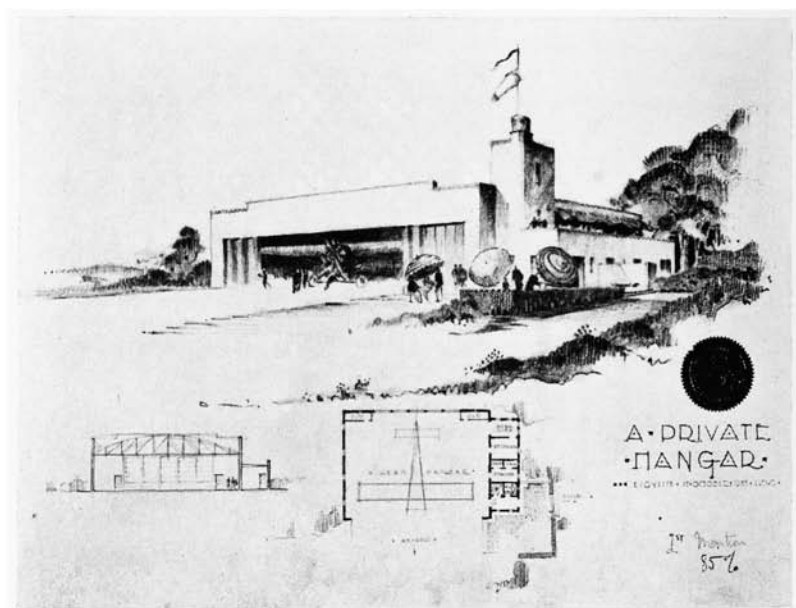
A RECREATION CENTER IN NATCHEZ MISSISSIPPI

SCULPTOR, AND PAINTER, IN COLLABORATION
 C. LAWRENCE, *Sculptor*; ADELAIDE E. BRIGGS, *Painter*
 National Collaborative Competition held in
 the American Academy in Rome



FRESHMAN DESIGN

NICOL BISSELL



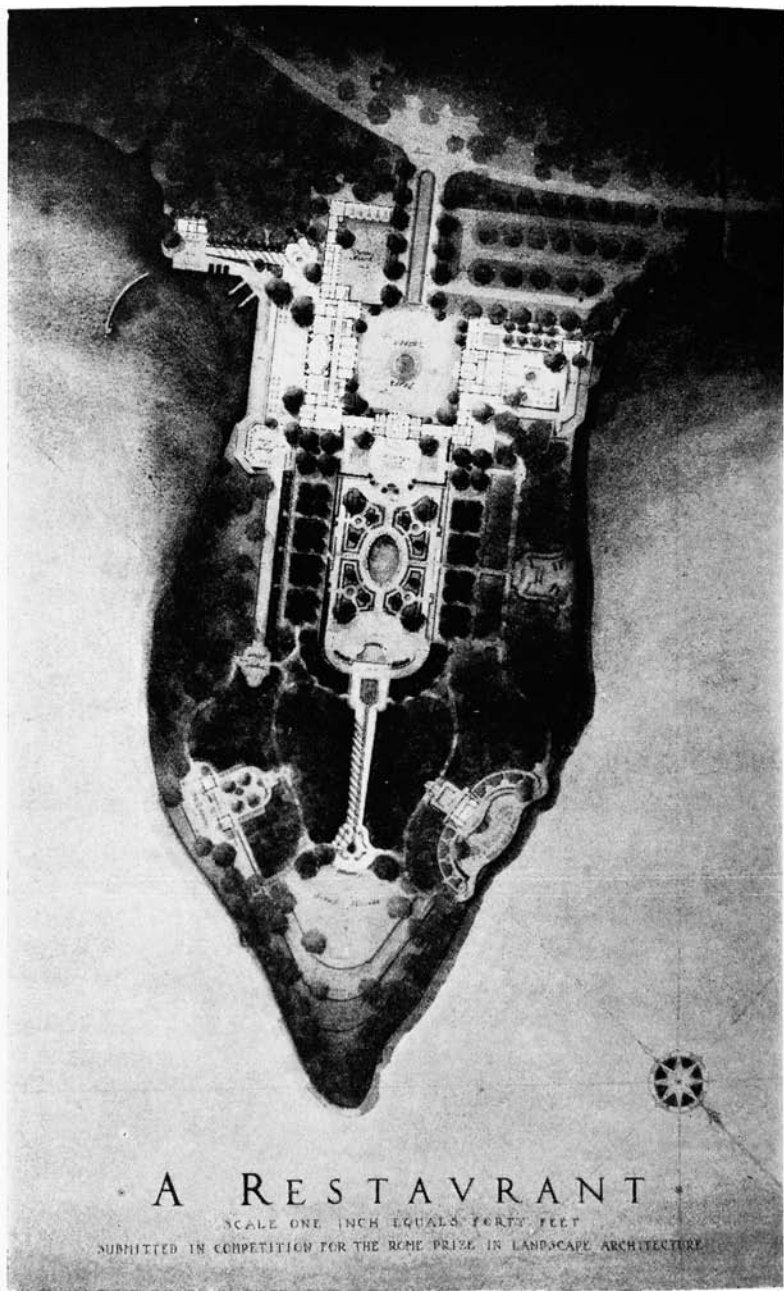
JUNIOR SKETCH PROBLEM

T. T. LLOYD



THESIS IN LANDSCAPE ARCHITECTURE

JAMES M. LISTER



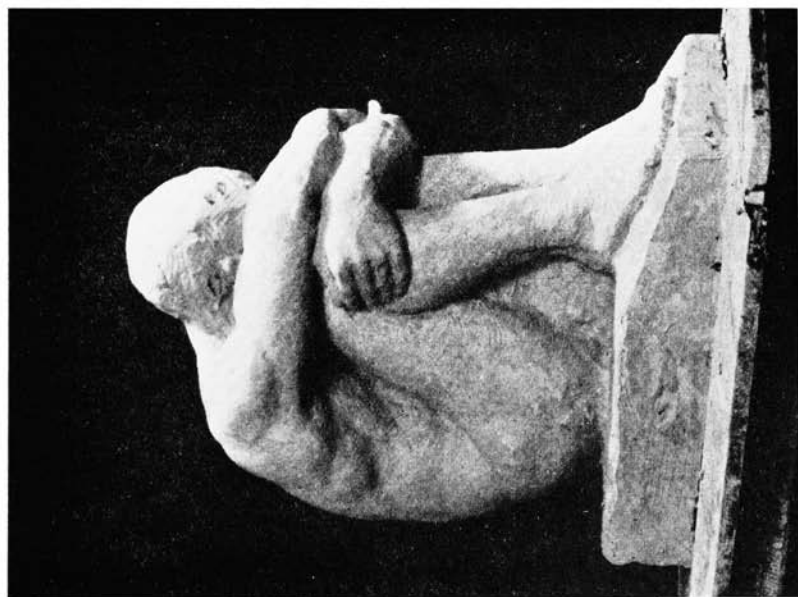
A RESTAURANT

SCALE ONE INCH EQUALS FORTY FEET

SUBMITTED IN COMPETITION FOR THE ROME PRIZE IN LANDSCAPE ARCHITECTURE

ROME PRIZE

MORRIS E. TROTTER, JR.

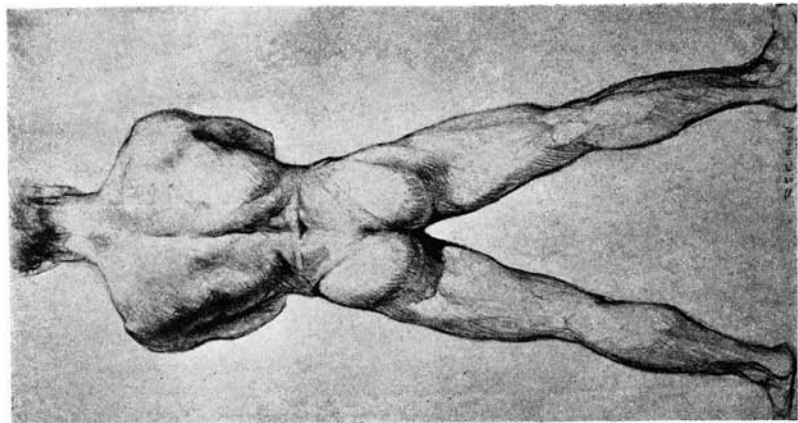


J. C. LAWRENCE



ADVANCED MODELING

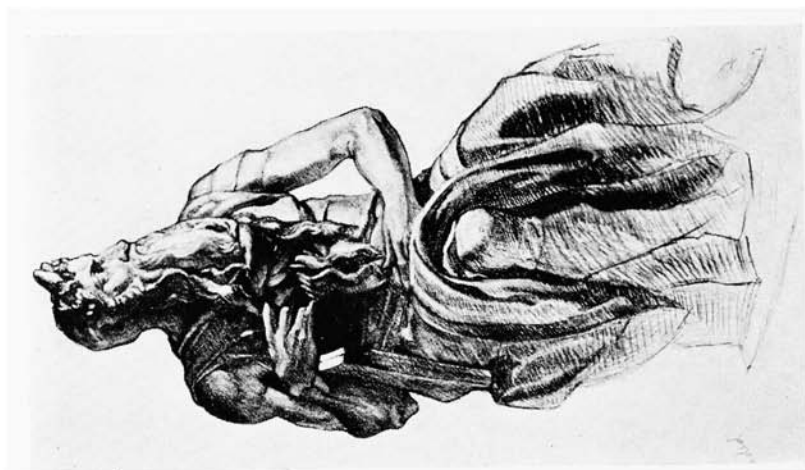
E. C. RUST

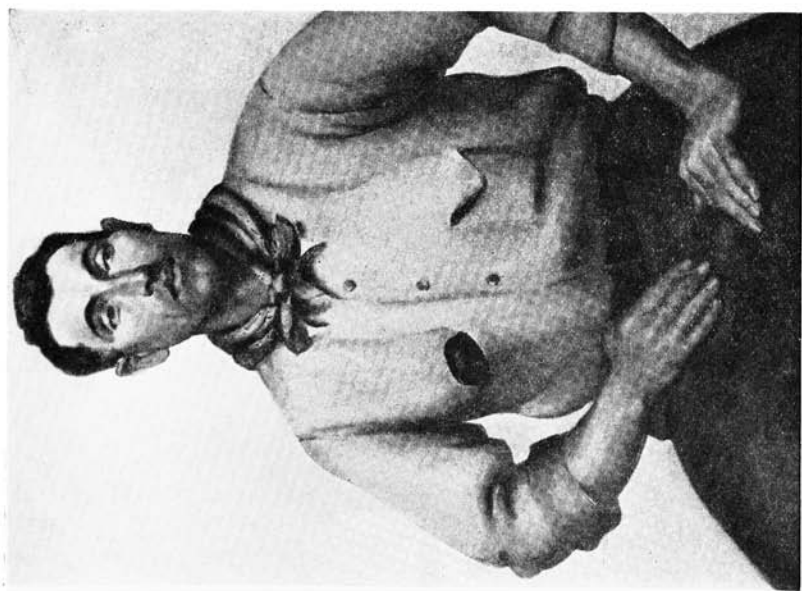


ETCHING
E. STEWART WILLIAMS

SECOND YEAR
SKETCH
R. S. KITCHEN

FIRST YEAR
DRAWING
J. C. FREER





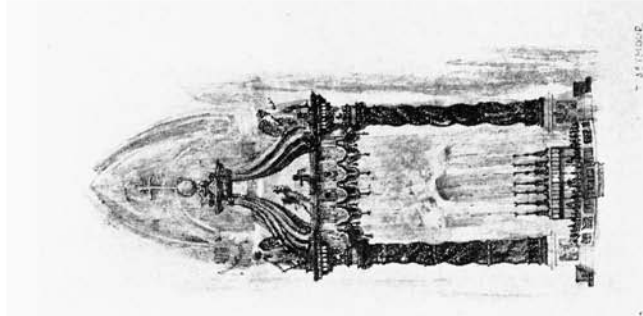
FIFTH YEAR PAINTING

L. STEVENS

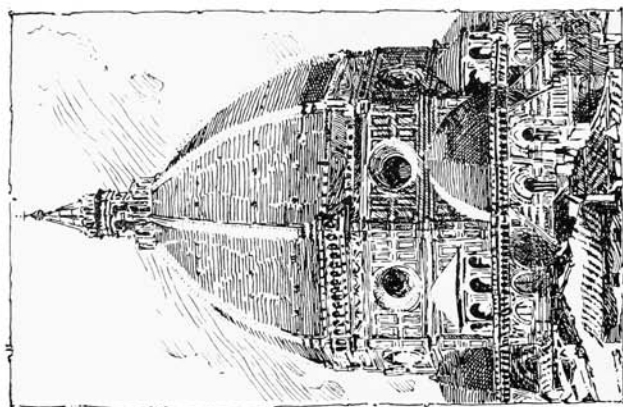


FIFTH YEAR COMPOSITION

E. T. JONES



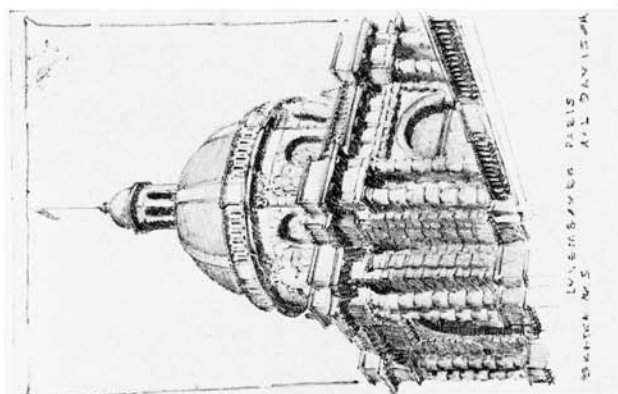
T. SEYMOUR



A. GELLER

The Dome, Florence

HISTORY SKETCHES



A. L. DAVISON

COURSES OF INSTRUCTION

GIVEN IN THE COLLEGE OF ARCHITECTURE

NOTE: *Courses which are open to election by students not registered in the College of Architecture are marked with an asterisk (*) preceding the number of the course. The number of students that can be accepted in any course is limited.*

Certain of the advanced courses in the department of Freehand Drawing and Fine Arts may be elected by specially qualified students with the personal permission of the Professor in charge of the course. See pages 36-38.

Students not registered in the College of Architecture are required to pay a fee of \$5 a term for each course in Design, Drawing, or Modeling, except that when the student is registered for more than two such courses the total fee shall be \$10.

THEORY OF ARCHITECTURE

012. **Advanced Theory Seminar, Elective.** First term. Credit one hour. Mr. BOSWORTH. Registration limited. Open to Students in Advanced Design and graduates. W 4. Students planning to register for this course must obtain permission from Mr. BOSWORTH before registration day.

013. **Advanced Theory Seminar, Elective.** Second term. Credit one hour. Mr. SEYMOUR. Registration limited. Open to Students in Advanced Design and graduates. By appointment. Students planning to register for this course must obtain permission from Mr. SEYMOUR before registration day.

014. **Advanced Theory Seminar, Elective.** First term. Credit one hour. Mr. HARTELL. Registration limited. Open to upperclassmen and graduates. By appointment. Students planning to register for this course must obtain permission from Mr. HARTELL before registration day.

070. **Landscape Seminar, Elective.** Either or both terms. Credit one hour each term. Mr. MONTILLON or Mr. LAWSON. Open to seniors and graduates. By appointment.

*072. **Appreciation of Architecture.** Second term. Credit two hours. Mr. BOSWORTH. Registration limited. Open to non-technical upperclass students. No ability in drawing required. An analytical and historical study of specific examples taken from the Classic to the Renaissance period. Lectures with assigned readings, essays, and examinations. T Th 2 p. m. White 28.

DESIGN

Instruction in Landscape and Architectural Design is given by the Design Staff and consists of individual criticism over the drafting board. By appointment.

110. **Elementary Design.** Throughout the year. Credit seven hours on completion of the course. Mr. HARTELL. The first principles of architectural design and construction with drawings in pencil and ink, rendered in wash and color. Lecture, M 1:40, and T W F 1:40-4.

111. **Intermediate Design.** Throughout three terms. Credit twelve hours on completion of the course. Mr. BURNHAM and Mr. DUNBAR. Prerequisite course 110. A series of problems in architectural composition and planning.

113. **Advanced Design.** Throughout three terms. Credit twenty-four hours on completion of the course. Mr. SEYMOUR. Prerequisite courses 111 and 611. This course is a prerequisite for the thesis.

114. **Architectural Thesis.** Credit eight hours. Prerequisite course 611 and (except for students in Option 1) two terms of course 113. Mr. BOSWORTH.

150a. **Intermediate Landscape Design.** Throughout the year. Credit eight hours on completion of the course. Messrs. MONTILLON and LAWSON. Prerequisite course 110. Half of the work of this course is identical with that of course 111. One lecture discussion period each week on the theory of landscape design. Hour to be arranged.

150b. **Intermediate Landscape Design.** Throughout the year. Credit eight hours on completion of the course. Messrs. MONTILLON and LAWSON. Prerequisite course 150a.

151. **Advanced Landscape Design.** Throughout three terms. Credit twenty-four hours on completion of the course. Messrs. MONTILLON and LAWSON. Prerequisite course 150b.

152. **Landscape Thesis.** Credit eight hours. Prerequisite course 151.

170. **Architectural Rendering.** Either term. Credit two hours. Mr. SEYMOUR. Prerequisite course 110. By appointment. Registration limited. Students must obtain permission from Mr. SEYMOUR before registering for this course.

THEORY OF CONSTRUCTION

210. **Mechanics of Materials.** Second and first terms. Credit three hours each term. Prerequisite, Mathematics 8. Messrs. YOUNG and BROWN. Second term; a brief study of the principles of analytic and graphic statics. Recitations. Section A, M W F 9. Section B, M W F 1:40.

First term. The effects of loading in producing stress and deformation in beams, columns, and masonry. Two recitations and one computing period. Section A, M W 9; Th 1:40-4. Section B, T Th 9; Th 1:40-4. White B 10.

211-212. **Structural Design.** First term. Credit three hours. Second term. Credit two hours. Prerequisite course 210. Mr. BAXTER. The principles studied in course 210 are applied to the structural design of such structural elements as occur frequently in the practice of Architecture and Landscape Architecture. Lectures, computations, and reports. First term, M W F 1:40-4; second term, M W 1:40-4. White B 10. Course 211 is a prerequisite for Concrete 280.

FREEHAND DRAWING AND FINE ARTS

(See Note, page 35)

Composition:

These courses consist of the study of the underlying principles of composition. They are presented by means of series of problems in pictorial and decorative drawing in line, tone, and color, or in sculptural groups. The work requires the application of the knowledge and proficiency the student has gained in other courses. Each course is prerequisite to the succeeding course.

*300. **First Year Composition.** Throughout the year. Credit four hours on completion of the course. Mr. STONE. T Th 1:40-4. Franklin 37.

301. **Second Year Composition.** Throughout the year. Credit five hours on completion of the course. Mr. WASHBURN. First term, T Th 10-12:30. Second term, T Th S 10-12:30. Franklin 37.

302. **Third Year Composition.** Throughout the year. Credit six hours on completion of the course. Mr. CAMDEN. T Th 1:40-4. Franklin.

303. **Fourth Year Composition.** Throughout the year. Credit eight hours on completion of the course. Mr. CAMDEN. T Th 1:40-4. Franklin.

304. **Fifth Year Composition.** First term. Credit four hours on completion of the course. Mr. MINJO. By appointment. Morse.

Drawing and Painting:

In this sequence of courses the emphasis is primarily on the study and representation of form. Various media are used. The beginning work is in pencil and charcoal from geometric objects and still life, instruction in perspective becoming a part of the study. Later, in drawing the human figure from plaster casts and from the living model, the study of Anatomy parallels the work in drawing.

In the third year the course becomes the study in color of the figure both nude and draped.

Each course is prerequisite to the succeeding course.

***310. First Year Drawing.** Credit three hours each term. Section A, T Th S 8-10:30. Section B, M T W 8-10:30. Mr. WASHBURN. Section C, T Th S, 10-12:30. Given especially for students not registered in the College of Architecture. Mr. BRAUNER. Franklin 37.

311. Second Year Drawing. Credit three hours each term. Mr. MIDJO. M W F 1:40-4. Franklin 38.

312. Third Year Drawing and Painting. Credit four hours first term, six hours second term. Messrs. MIDJO and BRAUNER. First term, M T W Th 1:40-4. Criticism, M W. Second term, daily 10-12:30. Criticism, T Th S.

313. Fourth Year Painting. Credit six hours each term. Messrs. BRAUNER and MIDJO. Daily 10-12:30. Criticism, T Th S. Franklin 38.

314. Fifth Year Painting. First term only. Credit six hours. Messrs. BRAUNER and MIDJO. Daily 10-12:30. Criticism, T Th S. Franklin 38.

320, 321, 322. Life Drawing. Credit two hours each term. Messrs. BRAUNER and MIDJO. Given especially for students in Architecture and Landscape Architecture. Section A, M W 10-12:30. Section B, M W 1:40-4. Franklin 39.

325. Etching. Either term. Credit two hours for beginners. One or two extra credit hours by special arrangement when credit for first two hours has been earned. Messrs. STONE and WASHBURN. Prerequisite Composition 325 or three years of Architectural Design. The work is done in drypoint and in acid etching. Original designs are developed; the instruction is principally on the techniques.

326. Perspective. Second term. Credit one hour. Mr. WASHBURN. Prerequisite 310 one term and 510 one term. Given especially for Fine Arts students. The theory of perspective, linear perspective, direct plan and measuring point method. Perspective of tones and colors. S 10-12:30. Franklin 37.

Modeling:

These courses begin with a study of architectural ornament from Plaster Casts, then the human head and figure from Antique Casts. The advanced work is sculptural portraiture and figure from life.

330. Elementary Modeling. Credit two hours each term. Mr. CAMDEN. Prerequisite 310. Section A, M W 1:40-4. Section B, Th S 10-12:30. Morse.

331. Third Year Modeling. Credit four hours first term; six hours second term. Mr. CAMDEN. M T W Th 1:40-4. Criticisms as arranged. Morse.

332. Fourth Year Modeling. Credit six hours each term. Mr. CAMDEN. Daily 10-12:30. Criticisms as arranged. Morse.

333. Fifth Year Modeling. First term. Credit six hours. Mr. CAMDEN. Daily 10-12:30. Criticisms as arranged. Morse.

Color:

These courses are, in sequence, the representation of still life groups in Pastel, Oil and Watercolor. In the elementary work the simple medium of pastel is used and the student is given instruction in the theory of color as applied to representation. The technique of oil is then studied and finally water-color, the most difficult medium, is used. The study of color harmony is encouraged.

Further study of color harmony is carried on in the courses in Composition.

*340-341-342. **Color.** Credit two hours each term in each course. One or two extra credit hours by special arrangement in Courses 341 and 342. Mr. STONE. Any of the three courses may be taken in either of two sections: First and second terms: Section A, M W 10-12:30. Section B, T Th 10-12:30. Franklin 37.

Thesis:

350. **Thesis.** Second term. Credit eight hours. Prerequisite courses 304 and 314 or 333.

HISTORY

*410. **History of Architecture.** First term. Credit three hours. Mr. PHELPS. Egyptian, Western Asiatic, Greek, Roman, Early Christian, and Byzantine architecture. Lectures with assigned readings, sketches, and examinations. T Th S 9. White 28.

*411. **History of Architecture.** Second term. Credit three hours. Prerequisite course 410. Mr. DUNBAR. Mohammedan, Romanesque, and Gothic architecture. Lectures with assigned readings, sketches, and examinations. T Th S 9. White 28.

*412. **History of Architecture.** First term. Credit three hours. Prerequisite course 411. Mr. DUNBAR. Architecture of the Renaissance and to the beginning of the nineteenth century in the principal European countries. Lectures with assigned readings, sketches, and examinations. M W F 9. White 28.

413. **Modern Architecture.** Second term. Credit three hours. Prerequisite course 412 and at least one term of Junior Design. Messrs. PHELPS and DUNBAR. Nineteenth century and more recent work in the principal European countries, and the architecture of the United States from the Colonial times to the present. M W F 10. White 28. Given in alternate years. Will be given in 1936-37.

414. **Greek Sculpture and Italian Painting.** Throughout the year. Credit two hours a term. Mr. FINLAYSON. Lectures, class discussions and examinations. W F 9. Open to third, fourth, and fifth year students in the College of Architecture.

*425. **History of Painting and Sculpture.** Throughout the year. Credit three hours each term. Mr. FINLAYSON. A general survey of painting and sculpture. This course is a prerequisite for all other courses in the history of painting and sculpture, with the exception of 414. Registration limited to 50. Students taking this course must register with Mr. FINLAYSON on registration day. M W F 2. White 28.

*426. **History of Northern Painting.** Throughout the year. Credit three hours a term. Mr. FINLAYSON. Painting in the Netherlands and in Germany, first term. Painting in France and England, second term. Either term may be elected without the other. Course 425 is a prerequisite. M W F 11. White 28. Given in alternate years. Will not be given in 1936-37.

*428. **Historical Studies in Renaissance Art.** Throughout the year. Credit three hours each term. Mr. FINLAYSON. Some phase of Renaissance art will be selected each year for more thorough consideration than is possible in the general survey course 425. Prerequisite course 425. M W F 11. White 28. Given in alternate years. Will be given in 1936-37.

*429, 430. **Historical Seminary in Painting and Sculpture.** Throughout the year. Credit two hours a term. Mr. FINLAYSON. Registration limited. Open to graduate students and qualified undergraduates. Ten hours of History of Art or their equivalent.

lent is prerequisite. By appointment. Students wishing to elect this course must register with Mr. FINLAYSON by the Monday before block week preceding the opening of the course. Exception will be made only in the case of graduate students entering the University in September.

*450. **History of Landscape Design.** Second term. Credit three hours. Mr. MONTILLON. Lectures, sketches, and assigned reading. M W F 10. White 28.

*470. **Historic Ornament.** Second term. Credit three hours. Prerequisite course 412. Mr. PHELPS. Some of the great historic styles of decoration will be analyzed and studied in detail, and the development of furniture, stained glass, and other minor arts will be briefly outlined. Lectures, sketches, and examinations. Students who wish to take this course must register with Mr. PHELPS on or before January 25. Given in alternate years. Will not be given in 1936-37.

471, 472. **Historical Seminary in Architecture.** Throughout the year. Credit one hour a term. Mr. PHELPS. Investigation of assigned topics in the history of architecture: review of books and discussions of current periodical literature. For graduates and open to qualified upperclassmen by permission. By appointment.

GRAPHICS

*510. **Descriptive Geometry.** Throughout the year. Credit three hours each term. Messrs. BAXTER and BROWN. The fundamental problems of descriptive geometry are studied and applied to the solution of problems in projection. Lectures and drawing. Section A, T Th S 10-12:30; Section B, M W F 10-12:30. White B 10.

511. **Perspective.** Second term. Credit one hour. Prerequisite at least one term of Intermediate Design 111. Mr. BURNHAM. A brief study of practical applied perspective, stressing composition and presentation, etc. F 10-12:30. White.

APPLIED CONSTRUCTION

610. **Building Materials and Construction.** Throughout the year. Credit three hours each term. Prerequisite 4 terms in the College of Architecture or the equivalent. Mr. TILTON. A brief study of structural materials and details of construction with particular reference to concrete, masonry, fire resisting construction, and carpentry. Lectures and discussions, T Th S 8. White 28.

611. **Applied Design.** First or second term. Credit nine hours. Prerequisites, courses 111, 211, 610, and one term of 113. Mr. TILTON, assisted by one member of the design staff and one member of the construction staff. The course consists in the design of structures, with special attention to their structural elements and the use of appropriate materials, and will be paralleled with discussions on heating, plumbing, lighting, specifications and contracts, and general office practice. Discussions, M and W at 8 and W at 11. White 28. Criticisms by appointment.

*650. **Planting Design.** Throughout the year. Credit two hours each term. Prerequisite, Plant Materials 8. The first term of this course is open to election by special permission. Mr. LAWSON. Lectures, sketches, drafting and field trips. Th 10-12:30. White B-6.

651. **Advanced Planting Design.** Either term. Credit two hours. Prerequisite, Planting Design 650 and permission to register. Mr. LAWSON by appointment. White B-6.

660. **Landscape Construction.** First term. Credit two hours. Prerequisite, C. E. 212 and 299. Mr. ————. Lectures and drawing periods. Hours to be announced.

REGIONAL AND CITY PLANNING

*710. **Principles of Regional and City Planning.** Throughout the year. Credit two hours each term. Registration limited to 50. Open to graduates and upperclassmen in all colleges of the University. Mr. CLARKE. The history of planning with a review of

influences which affected the development of cities from ancient to modern times. A general view of the theory and accepted practices of large-scale planning including a study of the legal and economic phases. Lectures, assigned reading, and examinations. Occasional lectures will be given by members of other faculties and by outside lecturers selected because of their special experience and skill in certain phases of planning. Students wishing to register for this course should register with Mr. CLARKE at the College of Architecture on registration day. M W 12. White 28.

*711. **Seminar in Regional and City Planning.** Throughout the year. Credit one hour each term. Mr. CLARKE. Investigation of assigned topics on particular aspects of the subject with emphasis on regional planning. Registration limited. Open to students in all colleges of the University, by permission. This course should accompany or follow course 710. By appointment. White.

712. **Seminar in Park Planning.** First term. Credit two hours. Mr. CLARKE. Specific problems relating to the design of city, state, and national parks with a study of examples. Registration limited. Open to upperclassmen and graduates in the Colleges of Architecture and Engineering. By appointment. White.

713. **Seminar in Parkway, Freeway, and Highway Planning.** Second term. Credit two hours. Mr. CLARKE. Specific problems relating to the design of the modern parkway, freeway, and highway with study of examples. Registration limited. Open to upperclassmen and graduates in the Colleges of Architecture and Engineering. By appointment. White.

COURSES OF THE REGULAR CURRICULA GIVEN OUTSIDE THE COLLEGE OF ARCHITECTURE

MILITARY SCIENCE AND TACTICS, AND PHYSICAL TRAINING

All men in the first two years of undergraduate courses must, in addition to the scholastic requirements for the degree, take three hours a week in the Department of Military Science and Tactics. This department is a unit of the Reserve Officers' Training Corps of the United States Army. The students are organized in an infantry regiment, a regiment of field artillery, two signal corps companies, and a band.

For details of the work in the Department of Military Science and Tactics, see the General Information Number.

All women in the first two years of undergraduate courses, and all men of those two classes who are excused from the military drill, must, in addition to the scholastic requirements for the degree, take three hours a week in the Department of Physical Training.

For details of the work in the Department of Physical Training, see the General Information Number.

HYGIENE AND PREVENTIVE MEDICINE

All students in the first year of undergraduate courses are required to attend lectures on Hygiene and Preventive Medicine given once a week throughout the college year. See Announcement of Courses page 45.

COURSES GIVEN IN THE COLLEGE OF ARTS AND SCIENCES

MATHEMATICS

Mathematics Make-up Permits

Permits must be secured from, and approved by, the Department of Mathematics at least one week before the date scheduled for the make-up examination.

*2. **College Algebra.** Repeated in second term. Credit three hours. M W F 9, T Th S 9.

*3. **Plane Trigonometry.** Repeated in second term. Credit three hours except for students offering Trigonometry for entrance. First term, M W F 10, T Th S 8. Second term, T Th S 10, M W F 8.

8. **Analytic Geometry and Calculus.** Throughout the year. Credit three hours a term. Prerequisite, Mathematics 1, 2, 3, or the equivalent. Primarily for students in the College of Architecture. M W F 8, T Th S 8.

ENGLISH

*1. **Elementary Composition and Literature.** Throughout the year. Credit three hours a term. MESSRS. BALDWIN, ADAMS, FINCH, GIDDINGS, GUSTAFSON, HARRIS, LIPA, MAURER, MYERS, TYLER, WEITZMANN, and WILSON. M W F 8, 9, 10, 11, 12; T Th S 8, 9, 10, 11. Rooms to be announced.

This course is open to underclassmen in Agriculture, Architecture, Chemistry, and Home Economics who have satisfied the entrance requirements in English. A study of composition in connection with the reading of representative works in English literature. Students who have not taken the course in the first term may enter in the second term.

Students who elect English 1 must apply as follows for assignment to sections: in the first term, on September 28 or 29 at the Drill Hall; in the second term on February 12 at Roberts 301. Registration in the course is in charge of Mr. BALDWIN.

PHYSICS

*3. **Introductory Physics.** First term. Credit three hours. Demonstration lectures, W F 9. Rockefeller A. One conference hour and one laboratory period a week to be arranged. Rockefeller 220. Assistant Professor HOWE and Mr. _____.

Properties of matter, sound, and light.

*4. **Introductory Physics.** Second term. Credit three hours. A continuation of Course 3. Hours and staff as in Course 3. It is recommended that this course be preceded by either Course 3 or entrance physics.

Electricity, magnetism, and heat.

CHEMISTRY

*101. **General Chemistry.** Lectures. Repeated in the second term. Credit three hours.

Two sections: M W F 11; T Th S 11. Main Lecture Room. Professor BROWNE and Assistant Professor LAUBENGAYER.

Chemistry 101 and 105 must be taken simultaneously unless permission is obtained by the student from the Dean of his college and from the Department of Chemistry to take either course alone.

*105. **General Chemistry.** Recitations and laboratory practice. Repeated in the second term. Credit three hours.

Recitations, one hour a week, to be arranged.

Laboratory sections: M F 1:40-4; T Th 1:40-4; W 1:40-4; S 8-10:30. Room 150. Professor BROWNE, Assistant Professor LAUBENGAYER, and assistants.

*106. **General Chemistry.** Throughout the year. Credit three hours a term. Limited to and required of students in Engineering and Architecture. Assistant Professor LAUBENGAYER and assistants.

Lecture: Baker 200.

Recitations: one hour, to be arranged.

Laboratory: Baker 150.

GEOLOGY

100. **Introductory Geology.** Repeated in the second term. Credit three hours. Professor RIES, Dr. BURFOOT and Dr. CONANT. Lectures, T Th 9. Laboratory, M T W Th or F.

Students must register for laboratory assignment at Geological Laboratory, McGRAW, before the beginning of the course. The fundamental principles of this branch of science. The inorganic aspects of the subject are emphasized more than the organic.

*501. **Engineering Geology.** Repeated in second term. Credit four hours. For engineering students. Others only by permission. Professor RIES and Dr. EDMUNDSON. Lectures, M W 11. Two laboratory periods, M W or T Th 1:40. McGRAW. Not the equivalent of Geology A or 100.

A discussion of the practical application of geologic principles to engineering work, and of the occurrence of such economic materials as are of importance to engineering students.

COURSE GIVEN IN THE MEDICAL COLLEGE

24. **Anatomy for Artists.** Throughout the year. Credit three hours a term. Professor KERR. A study of the bones, muscles and other structure that affect the surface form and posture. Lecture, Th 12. Drawing period 6 hours a week; hours to be arranged. Given in alternate years. Not given in 1936-37.

COURSES GIVEN IN THE COLLEGE OF AGRICULTURE

8. **Woody Plant Materials.** First and second terms. Credit two or four hours a term. Intended for advanced and graduate students. Registration by permission of the department. Lecture, T Th 9. Plant Science 37. Laboratory and field trips, M and either W or F 1:40-4. Plant Science 29. Professor R. W. CURTIS and Mr. _____.

A study of the trees, shrubs, and vines used in landscape planting and in nursery work. All members of the class will be required to participate in two excursions to the Rochester parks, one in each term. Laboratory fee, \$4.

SUMMER SESSION, 1936

A 3. **Garden Flowers.** Credit two hours. Lectures, M T Th 9; F 11. Plant Science 37. Laboratory, W Th 1:40-4:30. Plant Science 15 and Greenhouses and Gardens. Mr. ALLEN. Laboratory fee, \$2.

This course, planned primarily for graduate and advanced students in floriculture and ornamental horticulture, comprises a study of herbaceous plant materials. The aim is to give the student such an intimate knowledge of these forms of plants as may be used in garden planting, either on home grounds, rural social centers, or public parks, more particularly with reference to summer conditions. Students must have had sufficient botany to be familiar with the botanical characters and classification. An excellent collection of plant material is available for demonstrations. All members of the class will participate in an excursion to visit private estates and parks in Canandaigua and Rochester on August 11 and 12.

A 8. **Woody Plant Materials for Landscape Planting.** Credit four hours. Lectures, M T Th F 8. Laboratory and field trip, M T 10-12:30, W Th 11-1, M T 1:40-4:30. Plant Science 29 and Campus. Professor R. W. CURTIS. Laboratory fee, \$3.

A study of the characteristics and requirements of trees, shrubs, and vines for landscape planting. The laboratories and field trips enable the student to recognize common woody plants. The lectures discuss planting areas, planting practices, and plant materials, in order that the student may learn to see plants not only as growing things but as possible units in design with which he may be able to improve his surroundings. All members of the class must participate in an excursion to Rochester on August 11 and 12 to visit private estates and public parks. The transportation charge will be \$5.

COURSES GIVEN IN THE COLLEGE OF ENGINEERING

110. **Elementary Surveying.** Freshmen. Either term as assigned. Credit three hours. Use of steel tape, level and transit; fundamental surveying methods; measurements of lines, angles and differences of elevation; land surveying; areas and plotting. Recitations, field work, computations, and mapping. Textbook: Breed and Hosmer's *Elementary Surveying*. First term, one recitation and two field or computation periods a week; Second term, three recitations a week for the first six weeks and three field or computation periods a week for the remainder of the term. Professor UNDERWOOD, Assistant Professor LAWRENCE, and others.

212. **Landscape Engineering.** Second term. Credit three hours. Prerequisites Surveying 110 and Mechanics of Materials 210. Topographic Surveying, Transit, Stadia and Plane Table, Survey Plotting. Contouring, Earthwork, regrading and recontouring, computation of earthwork volumes. Secondary road location, horizontal and vertical curve, super-elevation. Given in alternate years. May be taken before or after Course 299. Not given in 1936-37. Assistant Professor LAWRENCE.

225. **Materials of Construction.** Juniors. Credit three hours. The materials studied are: Lime, cement, stone, brick, sand, timber, ores, cast iron, wrought iron, steel, and some of the minor metals and alloys. The chemical and physical properties, uses, methods of manufacture, methods of testing, and unit stresses of each material are considered, particular emphasis being laid on the points of importance to engineers. Three recitations a week. Textbook: Moore's *Materials of Engineering*. Professor SCOFIELD.

226. **Materials Laboratory.** Juniors. Either term. Credit three hours. Prerequisite course Arch. 210 and must be taken with or preceded by C. E. 280. Experimental determination of the properties of materials by mechanical tests. Study of testing machines (their theory, construction, and manipulation); calibration of testing machines and apparatus; commercial tests of iron and steel: tensile, compressive, torsional, shearing, and flexure tests of metal and various woods and stress-strain observations; tests of cement, concrete aggregate, concrete, plain and reinforced, and of road material and paving brick. The course is planned to supplement Course 225 with its study of the properties of materials by the actual handling of the materials and by observations of their behavior under stress. Laboratory work two 2½ hour periods a week. Professor SCOFIELD.

227. **Testing of Materials.** (Laboratory.) Second term. Credit one hour. Given especially for students in the College of Architecture. A brief course in laboratory methods comprising tests of beams and columns in steel, wood, and concrete. Professor SCOFIELD.

229. **Concrete Laboratory.** First term. Credit one hour. Making and testing of durable concrete. Inspection trips, good and poor concrete. Given in alternate years. Given in 1936-37. Professor SCOFIELD.

270. **Structural Design and Bridge Stresses.** Juniors. Either term. Credit four hours. Prerequisite courses 220 and 221.

Structural Design. The recitations cover the graphic analysis of simple beams and roof trusses. The computations and drawings include complete detail designs and working drawings of wooden joints to resist large tensile stresses, and of a wooden roof truss for given specifications. The object of the course is to show how to apply the principles of mechanics to the design of every detail of the simple structures named, and to study the forms and strength of joints and fastenings used in heavy timber framing. The computations required are to be arranged in systematic order in the form of reports. Textbook: Jacoby and Davis's *Timber Design and Construction*. Computation and drawing, two and one-half hours a week.

Bridge Stresses. Stresses due to dead, live and wind loads, initial tension, and impact; panel loads and locomotive axle loads; determination of the position of live loading for greatest stresses; maximum and minimum stresses; analytic and graphic methods are used. The principal types of simple trusses employed in modern construction are considered, in several cases both with and without counter bracing; three-hinged bridge and roof arches. The solution of many numerical examples taken from practice forms a prominent part of the class work. Textbook: Urquhart and O'Rourke's *Stresses in Simple Structure*. Three recitations a week. Professor URQUHART, Assistant Professors BURROWS and O'ROURKE.

271. **Structural Design.** Juniors. Either term. Credit three hours. Prerequisite course 270. An elementary course in Steel Design. Complete design, detail drawing, bill of material and estimate of weight of a steel roof truss and of a through and deck railroad plate girder bridge. Textbook: Urquhart and O'Rourke's *Design of Steel Structures*. Three computation and drawing periods a week. Professor URQUHART, Assistant Professors BURROWS and O'ROURKE.

272. **Advanced Structural Analysis.** Elective. Seniors and graduates. Either term. Credit three hours. Prerequisite courses 220, 221 and 270. Determination of the loading and stresses in continuous girders and trusses, and metallic arches. The arches include arch ribs and trussed arches with three and two hinges, respectively. Both analytic and graphic methods are used; the latter include displacement diagrams to find the deflection of trusses and the reactions of statically indeterminate structures; and the use of influence lines to find their loading and stresses. Recitations three hours a week. Professor URQUHART and Assistant Professor O'ROURKE.

273. **Steel Buildings.** Elective. Seniors and graduates. First term. Credit three hours. Prerequisite courses 220, 221, and 271. This course comprises the design of the steel framework for buildings of the prevailing type used in power house or shop construction. Dead, snow, and wind stress diagrams are drawn for the roof trusses. Provision is made for an electric crane moving the full length of the building and the stresses in the framework due to the movement of the crane are determined. The effect of the wind and the eccentric load due to the crane girder are considered in the design of the columns. Textbook: Ketchum's *Steel Mill Buildings*. Reports and drawings. Three two-hour periods a week. Assistant Professor BURROWS.

280. **Concrete Construction.** Juniors. Either term. Credit three hours. Prerequisite courses 220, 221, and 225. Concrete materials, properties of plain concrete, its making and deposition; elementary theory of reinforced concrete as applied to columns, rectangular beams and slabs; T-beams and beams reinforced for compression; direct stress combined with flexure. Three two-hour periods a week. Textbook: Urquhart and

O'Rourke's *Design of Concrete Structures*. Professor URQUHART, Assistant Professor O'ROURKE and Mr. PENDLETON.

281. Foundations. Juniors. Either term. Credit three hours. Prerequisite courses 220 and 221. Piles and pile driving, including timber, concrete, tubular and sheetpiles; cofferdams; box and open caissons; pneumatic caissons for bridges and buildings, caisson sinking, and physiological effects of compressed air; pier foundations in open wells; freezing process; hydraulic caissons; ordinary bridge piers; cylinders and pivot-piers; bridge abutments; spread footings for building foundations; underpinning buildings; subterranean exploration; unit loads. Textbook: Jacoby and Davis's *Foundations of Bridges and Buildings*. Recitations, collateral reading in engineering periodicals, and illustrated reports. Three hours a week. Professor URQUHART and Assistant Professor O'ROURKE.

282. Reinforced Concrete Building Design. Elective. Seniors and graduates. Either term. Credit three hours. Prerequisite course 280. Design of a reinforced concrete flat-slab building and investigation of various other types of floor systems for commercial buildings. Complete detail design for one building, including stairway, elevator shafts, penthouses, etc. Working drawings and steel schedules. Seven and one-half hours a week. Textbook: Urquhart and O'Rourke's *Design of Concrete Structures*. Professor URQUHART and Assistant Professor O'ROURKE.

285. Reinforced Concrete Design. Elective. Seniors and graduates. Either term. Credit three hours. Prerequisite course 280. Theory and design of gravity, cantilever, and counterfort retaining walls. Design of footings: single and multiple columns of reinforced concrete, I-beam grillages. Design of bins and tanks, subsurface and supported on towers. Reports and sketches. Three two-hour periods a week. Professor URQUHART and Assistant Professor O'ROURKE.

290. Engineering Law. Seniors. Juniors admitted only by special permission of the faculty. Also open to seniors in Architecture, Mechanical and Electrical Engineering, Chemistry, and other seniors submitting acceptable qualifications. Either term. Credit three hours. Basic essentials of contracts and contract principles; agency, tort and independent contractor; laws regulating acquisition, use and conveyance of lands and waters, including irrigation law, real estate documents, boundary lines, wills, eminent domain and title searches; corporations, partnerships and other contracts of association; sales and transportation contracts; negotiable instruments; bankruptcy, mechanics liens, patents, trademarks, copyrights, courts, and laws of insurance. The course culminates with the preparation of a set of contract documents for an assigned construction job, including advertisement, surety bond, form of proposal, information to bidders, agreement form, general conditions and specifications with full discussion of important clauses such as payments, time limit, arbitration, extras, liquidated damages and abandonment of contract. Tucker's "Contracts in Engineering" is used as a text, supplemented liberally from other sources. Lectures and recitations. Three hours a week. Professor BARNES and Assistant Professors CRANDALL, PERRY, and THATCHER.

299. Landscape Engineering. Second term. Credit three hours. Prerequisite Surveying 110 and Mechanics of Materials 210. *Roads*—soils and drainage, stabilization of soils, materials, road construction and low cost surfacing. *Structures*—short span bridges of timber, steel or concrete, bridge trusses, small dams, low retaining walls of concrete or rubble masonry, culverts, curbs, gutters, ditch linings, catch basins, septic tanks. Given in alternate years. May be taken before or after course 212. Given in 1936-37. Professors CONWELL and URQUHART or O'ROURKE.

HYGIENE AND PREVENTIVE MEDICINE

1. Hygiene. First term. Required of all Freshmen. One lecture recitation each week with preliminary examination and final. The use of a textbook will be required. Registration and assignment to section: Men, Old Armory; Women, Drill Hall.

Sections for men: Professor D. F. SMILEY; Assistant Professors A. G. GOULD, E. C. SHOWACRE, W. H. YORK; Instructors C. F. HAWKINS, P. J. ROBINSON, R. I. HOOD, and E. J. TEAGARDEN.

Sections for women: Assistant Professor JENNETTE EVANS; Instructors MURIEL CUYKENDALL and RUTH STELLE.

2. **Hygiene.** Second term. Required of all Freshmen. One lecture recitation each week with preliminary examination and final. The use of a textbook will be required. Registration and assignment to section: Men, Old Armory; Women, Sage Gymnasium.

Sections for men: Professor D. F. SMILEY; Assistant Professors A. G. GOULD, E. C. SHOWACRE, W. H. YORK; Instructors C. F. HAWKINS, P. J. ROBINSON, R. I. HOOD, and E. J. TEAGARDEN.

Sections for women: Assistant Professor JENNETTE EVANS; Instructors MURIEL CUYKENDALL and RUTH STELLE.

3. **Health Supervision of School Children.** Second term. Credit two hours. Assistant Professor GOULD. T Th 12. Histology lecture room, Stimson. Registration at Hygiene Office, Old Armory.

A practical course of lectures and demonstrations designed to familiarize the student with the facts and methods necessary for making an effective health supervision of school children. Prerequisites suggested but not demanded: Human Physiology and Anatomy. Open to sophomores, juniors, and seniors.

4. **Hygiene: Advanced First Aid.** Credit one hour. First term; repeated in second term. Prerequisites, Hygiene 1 and 2 and Human Anatomy or Human Physiology. Enrollment limited, and registration only after conference with the professor in charge.

First term: F 9, Anatomy Lecture Room, Stimson. Second term: Sat. 9, Anatomy Lecture Room, Stimson. Assistant Professor SHOWACRE.

This course includes the theory of the diagnosis and temporary treatment of the common emergencies with practical application of the essential fundamentals.

5. **Industrial Hygiene.** First term. Credit one hour. Assistant Professor GOULD. Th 12. Histology lecture room, Stimson. Registration at Hygiene Office, Old Armory. Prerequisites, Hygiene 1 and 2.

Factory sanitation, ventilation and illumination; occupational poisoning and disease; factory legislation; accident prevention; fatigue in industry; preventive medicine in the industries.

7. **Rural Hygiene.** Second term. Credit one hour. Professor SMILEY. W 12. Anatomy lecture room, Stimson. Registration at Hygiene Office, Old Armory. Prerequisites Hygiene 1 and 2.

A general consideration of health problems peculiar to rural areas with the presentation of practical schemes for the solution of these problems as far as possible.

8. **Hygiene: Mental Hygiene.** First term. Repeated in second term. Credit two hours. Prerequisites, Hygiene 1 and 2. Section 1, M F 11. Histology lecture room, Stimson. Section 2, T Th 11. Histology lecture room, Stimson. Registration at Hygiene Office, Old Armory. Doctors W. H. YORK and RUTH STELLE.

A study of the factors involved in the maintenance of mental health of the individual; i. e., satisfactory human relationships, attitudes, and behavior. Discussion of the causes and mechanisms underlying the more common personality deviations.

