

CORNELL UNIVERSITY OFFICIAL PUBLICATION

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Announcement of the College of Architecture 1925-26

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THE UNIVERSITY CALENDAR FOR 1925-26

Observed by all the departments of the University at Ithaca.

1925		FIRST TERM
Sept.	14, <i>Monday</i>	Entrance examinations begin.
Sept.	23, <i>Wednesday</i> ,	Registration and assignment of new students.
Sept.	24, <i>Thursday</i> ,	
Sept.	25, <i>Friday</i>	Registration and assignment of old students.
Sept.	26, <i>Saturday</i> ,	Assignments concluded.
Sept.	28, <i>Monday</i> ,	Instruction begins at 8 A. M.
Oct.	16, <i>Friday</i> ,	Last day for payment of tuition for the first term.
Nov.	26, <i>Thursday</i> ,	Thanksgiving Day: a holiday
Dec.	19, <i>Saturday</i> ,	Instruction ends at 1 P. M.
1926		} Christmas Recess
Jan.	4, <i>Monday</i> ,	
Jan.	11, <i>Monday</i> ,	Instruction resumed, 8 A. M.
Jan.	23, <i>Saturday</i> ,	Founder's Day.
Jan.	25, <i>Monday</i> ,	Instruction ends.
Feb.	3, <i>Wednesday</i> ,	Term examinations begin.
Feb.	4, <i>Thursday</i> ,	Term ends.
		A holiday.
SECOND TERM		
Feb.	5, <i>Friday</i> ,	} Registration of all students.
Feb.	6, <i>Saturday</i> ,	
Feb.	8, <i>Monday</i> ,	Instruction begins at 8 A. M.
March	1, <i>Monday</i> ,	Last day for payment of tuition for the second term.
April	3, <i>Saturday</i> ,	Instruction ends at 1 P. M.
April	12, <i>Monday</i> ,	Instruction resumed, 8 A. M.
May	22, <i>Saturday</i> ,	} Spring Recess
May	31, <i>Monday</i> ,	
June	8, <i>Tuesday</i> ,	Spring Day: a holiday.
June	14, <i>Monday</i> ,	Term examinations begin.
		End of term examinations.
		COMMENCEMENT.

THE COLLEGE OF ARCHITECTURE

THE FACULTY

LIVINGSTON FARRAND, A.B., M.D., L.H.D., LL.D., President of the University.

FRANCKE HUNTINGTON BOSWORTH, JR., A.B., Dean of the College of Architecture, and Andrew Dickson White Professor of Architecture.

CLARENCE AUGUSTINE MARTIN, D.Sc., Professor of Architecture.

OLAF MARTINIUS BRAUNER, Professor of Drawing and Painting.

ALBERT CHARLES PHELPS, B.S., M.Arch., World War Memorial Professor of Architecture.

GEORGE YOUNG, JR., B.Arch., Professor of Architecture.

E. GORTON DAVIS, B.S., Professor of Landscape Architecture.

CHRISTIAN MIDJO, Professor of Freehand Drawing and Modeling.

RALPH WRIGHT CURTIS, M.S.H., Professor of Ornamental Horticulture.

LEROY P. BURNHAM, M.S.Arch., Professor of Design.

GEORGE RAY CHAMBERLAIN, M.E., Assistant Professor of Freehand Drawing.

EUGENE DAVIS MONTILLON, B.Arch., Assistant Professor of Landscape Architecture, and Secretary of the Faculty of Architecture.

HUBERT E. BAXTER, B.Arch., Assistant Professor of Architecture.

WALTER KING STONE, Assistant Professor of Drawing.

_____, Assistant Professor of Design.

EDWARD LAWSON, B.S., M.L.D., F.A.A.R., Assistant Professor of Landscape Architecture.

_____, Instructor in History of Architecture and Curator of College Collections.

EDWARD ABBUEHL, Instructor in Graphics.

WILLIAM H. SCHUCHARDT, B.Arch., Visiting Lecturer.

MILDRED E. VANALSTYNE, Secretary to the Dean.

GENERAL STATEMENT

The College of Architecture is a professional school, designed to prepare students for taking up ultimately the independent practice of the profession of

Architecture,

Landscape Architecture,

Painting or Sculpture.

The course leading to the degree of Bachelor of Architecture is designed for the student who intends to practice architecture; it may be taken as a preparation for engaging in the manufacture of building materials or in the business of construction. The course leading to

the degree of Bachelor of Landscape Architecture is designed for the student who intends to practice landscape architecture. The course leading to the degree of Bachelor of Fine Arts is intended for prospective artists or for one who expects to engage in any of the decorative arts.

The number of students in the college is limited in order to insure, throughout the course, that close personal association between teacher and pupil which is necessary for effective instruction in any creative art. The courses are of a technical nature. The work is competitive. The standard of scholarship is maintained by the students upon a professional basis. It is therefore inadvisable for those not vitally interested to attempt the work of any of these courses.

The course of study leading to any of the three degrees named requires, normally, five years of work. It is possible, however, for a thoroughly prepared and ambitious student to qualify himself for a degree in less time. In order to do so, it would be necessary to present for entrance Advanced Algebra, Trigonometry, Physics, and Chemistry. Students presenting these subjects for entrance are not required to repeat them in college. 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 records, 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 any art education, however, is of so much value that crowding of the work is not wise.

BUILDINGS AND EQUIPMENT

The College of Architecture occupies the third and fourth floors and a portion of the basement of White Hall and the top and a part of the second floor of Franklin Hall. The college offices, the college library, and the lecture 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 approximately 45 by 156 feet in dimension, occupies the entire fourth floor. On the top floor of Franklin are well-lighted studios devoted to the work in freehand drawing, painting, and modeling.

The college library is one of the best in the country, and the student is permitted and encouraged to use the books, photographs, and drawings freely.

A carefully selected collection of about 24,000 lantern slides is used constantly in connection with the lectures upon history, theory, and construction.

The exhibition rooms are in use for the exhibition of current student work in design and in art or for exhibitions of drawings, paintings, and

textiles, which serve to keep the student in touch with the work of other schools of architecture, and to familiarize him with the work of the best practitioners and artists.

ADMISSION TO THE COLLEGE

Admission to the College of Architecture is to be obtained only through the Committee on Admissions of the College of Architecture.

REQUIREMENTS FOR ADMISSION

The number of those admitted each year is limited to that number for whom adequate educational provision can be made. The number applying and fulfilling the scholastic requirements, as set forth in the General Circular of Information of the University and in this Announcement, exceeds that limit.

The Committee on Admissions of this College bases its selection upon such evidence as can be gathered of the applicants' scholastic standing, character, seriousness of purpose, and fitness for professional work. In making this selection the Committee endeavors to give proper weight to these various factors judged comparatively among all the candidates.

Candidates for admission should consult also the General Circular of Information, which will be sent free on application to the Secretary of Cornell University, Ithaca, N. Y.

Applications for admission should be filed as early as possible and not later than the first of August preceding the anticipated entrance. *All correspondence concerning academic entrance requirements should be addressed to the Registrar of Cornell University*, who passes upon all such entrance and reports his action to the candidate and to the Committee on Admissions of the College of Architecture. All other correspondence should be addressed to the Dean of the College of Architecture.

ACADEMIC ENTRANCE REQUIREMENTS

The subjects that may be offered for admission to the College of Architecture are named in the following list. The figure in parenthesis following each subject indicates its value expressed in units and shows the maximum and minimum amount of credit allowed in the subject. A unit represents five prepared recitations a week for one year of study.

1a. English 1.....	(1½)	8a. Ancient History.....	(½-1)
1b. English 2.....	(1½)	8b. Modern History.....	(½-1)
1c. English (elective)...	(1)	8c. American History, Civics.....	(½-1)
2a. First Year Greek....	(1)	8d. English History.....	(½-1)
2b. Second Year Greek...	(1)	9a. Elementary Algebra.....	(1)
2c. Third Year Greek....	(1)	9b. Intermediate Algebra.....	(½)
3a. First Year Latin....	(1)	9c. Advanced Algebra.....	(½)
3b. Second Year Latin....	(1)	9d. Plane Geometry.....	(1)
3c. Third Year Latin....	(1)	9e. Solid Geometry.....	(½)
3d. Fourth Year Latin... (1½)		9f. Plane Trigonometry.....	(½)
4a. First Year German... (1½)		9g. Spherical Trigonometry.....	(½)
4b. Second Year German	(1)	10. Physics.....	(1)
4c. Third Year German..	(1)	11. Chemistry.....	(1)
4d. Fourth Year German	(1)	12. Physical Geography.....	(½-1)
5a. First Year French...	(1)	13. Biology*.....	(1)
5b. Second Year French..	(1)	14. Botany*.....	(½-1)
5c. Third Year French...	(1)	14a. Zoology*.....	(½-1)
5d. Fourth Year French..	(1)	15. Bookkeeping.....	(½-1)
6a. First Year Spanish..	(1)	16. Agriculture.....	(½-1)
6b. Second Year Spanish	(1)	17. Drawing†.....	(½-1)
6c. Third Year Spanish..	(1)	18. Manual Training†.....	(½-1)
6d. Fourth Year Spanish	(1)	19. Any high school subject or sub-	
7a. First Year Italian... (1)		jects not already used.....	(½-1)
7b. Second Year Italian.. (1)			
7c. Third Year Italian... (1)			

ADMISSION TO THE FRESHMAN CLASS

For admission to the freshman class men must be at least sixteen years of age and women seventeen, and the applicant is required to offer fifteen entrance units which must include English (3), History (1), Elementary Algebra (1), Intermediate Algebra (½), Plane Geometry (1), Solid Geometry (½), either Greek, German, French, Latin, Italian, or Spanish (3 units in one language or 2 units in each of two of these languages.)

Among the remaining 5 or 4 units there must be included credit in at least one of the following: Advanced Algebra, ½ unit; Plane Trigonometry, ½ unit; Physics, 1 unit, or Chemistry, 1 unit. Not more than a total of one unit will be accepted for entrance in Bookkeeping, Agriculture, Drawing, and Manual Training.

The minimum entrance credits must be presented, for conditional entrance to the College of Architecture is not permitted.

Students are admitted to the freshman class at the beginning of the first term, in September.

Application for admission to the freshman class, accompanied by a deposit of \$25 (see the General Circular of Information) must be made not later than August first in order to receive favorable consideration.

After the applicant's credentials have been received and accepted by the Registrar, they will be sent to the College of Architecture. The

*If Biology (1 unit) is offered, neither Botany (½ unit) nor Zoology (½ unit) may be counted.

†An applicant for admission may not count under No. 19 work in any of the subjects Numbers 1-18 until he has offered the maximum in that particular subject under its proper number, e.g., four units of Latin, English, German, French, or Spanish; three units of Greek or Italian; one unit of Physics or Chemistry.

Committee on Admissions will then pass upon the application, considering the academic record and all other available information bearing upon the case, and will make a ruling upon the admission of the candidate. All applicants will be notified of the ruling of the Committee on Admissions not later than August 15.

ADMISSION TO ADVANCED STANDING

A student who, having already attended some technical school or institution of collegiate rank, desires advanced standing in any regular course in the College of Architecture, should file with the Registrar of Cornell University, on an official blank to be obtained from him, a formal application for admission to advanced standing in the College of Architecture, together with an official certificate from the institution already attended, of his honorable dismissal, his entrance credits in detail, his terms of attendance, and the amount of work that he had completed, with a detailed statement of the courses pursued for which he desires credit at Cornell University. He should also send a catalogue of the institution, writing his name on it and marking the entrance requirements that he has satisfied and each subject that he has completed.

Credit for work completed in other institutions must be obtained from the Registrar *at the time of entrance* and students should obtain all possible credits at this time, even though not needed for immediate use.

Students with advanced standing are admitted to the college at the beginning of either the first or the second term. Application for admission should be made by August 1 as above, or for admission at the beginning of the second term not later than January 1. Applications should be accompanied by a deposit of \$25. See the General Circular of Information.

The Committee on Admissions passes upon all applications for advanced standing.

ADMISSION OF SPECIAL STUDENTS

All correspondence concerning admission of special students should be addressed to the Dean of the College of Architecture. A special form of questionnaire will be sent to such applicants. Special students are primarily those of advanced experience in the practice of their art. They must be at least twenty-one years of age, and must have had a high school training or its equivalent, including a working knowledge of plane geometry and solid geometry and, in the case of architects, of algebra through quadratic equations. They should have at least three years' practical experience or its equivalent and submit with their application examples of their work or draftsmanship. Special students may be admitted at the beginning of either term, but applications accompanied by deposit should be filed by August 1 or January 1 as above. See also the General Circular of Information.

A higher scholastic performance is expected of special students and is made a condition of their remaining enrolled in the college. The college issues no certificate for special work.

A SIX-YEAR COURSE LEADING TO THE DEGREES OF BACHELOR OF ARCHITECTURE AND CIVIL ENGINEER

A student may arrange a course of about six years leading to the degrees of Bachelor of Architecture and Civil Engineer. Such an arrangement must in every instance have the special approval of the College of Architecture and the School of Civil Engineering.

ADMISSION AS A GRADUATE STUDENT

All correspondence relating to graduate work should be addressed to the Dean of the Graduate School.

In all departments of the College of Architecture work is arranged to meet the special needs of graduate students. Candidates for advanced degrees in architecture or in landscape architecture must be graduates of schools of equal standing with the College of Architecture, and their training in design or other subjects elected for graduate study must be equivalent to the training required in the same subjects by the College of Architecture for the degree of Bachelor of Architecture or for the degree of Bachelor of Landscape Architecture.

A CERTIFICATE OF VACCINATION REQUIRED BEFORE MATRICULATION

Every student matriculating in the University in September, 1925, or thereafter, is required to present to the Registrar a satisfactory certificate of vaccination; this certificate to be considered satisfactory only if it certifies to a successful vaccination within the last five years or certifies that at least three unsuccessful attempts at vaccination have been made within that same period.

TUITION AND OTHER FEES

Information regarding tuition and other fees, and regarding the expenses of living in Ithaca, should be looked for in the General Circular of Information.

FELLOWSHIPS: SCHOLARSHIPS: PRIZES

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

A University Fellowship of the value of \$400 with free tuition is awarded annually to a graduate student in architecture.

The Beckwith Brown Memorial Medal may be awarded each year to the two members of the graduating class who have made the best record in design in their senior year.

The Sands Memorial Medal may be awarded for special excellence in any individual piece of work in any course in the college.

The Student Medal of the American Institute of Architects is awarded to the member of the graduating class whose record is the best throughout the entire course, and the person to whom the medal is awarded is invited to exhibit his work at the next annual convention of the Institute.

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 Oratory (first prize \$125, second prize \$35, and third prize \$25) are open to students in architecture on equal terms with students in engineering.

THE HONOR CODE IN EXAMINATIONS

Under a constitution proposed and adopted by the students, and approved by the University Faculty on March 9, 1921, all students of Cornell University are put upon their honor with respect to their conduct in examinations and in other tests of work by which they are earning academic credit. The students have made themselves responsible for maintaining the code. For the trial of charges of breach of honor they elect committees of their own—a central committee for the University, and a committee in each of the colleges. Every student is expected to do his share in upholding the code, not only by honorable conduct on his own part, but also by refusal to conceal or condone fraud on another's part. A fraud observed in any college should be reported to a member of the student honor committee of that college.

COURSES OF STUDY

I. The Course Leading to the Degree of BACHELOR OF ARCHITECTURE.

This course is designed for the person who intends to become a practicing architect.

II. An Optional Course Leading to the Degree of BACHELOR OF ARCHITECTURE and Related Especially to CONSTRUCTION.

This course is designed for the student who plans to engage particularly in the structural field of architectural practice or who wishes to prepare himself for the business of contractor or of manufacturer of building materials.

III. The Course Leading to the Degree of BACHELOR OF FINE ARTS.

This course is intended for the person who expects to become a painter or sculptor.

IV. The Course Leading to the Degree of BACHELOR OF LANDSCAPE ARCHITECTURE.

This course is intended for the person who expects to become a practicing landscape architect.

SEQUENCE OF COURSES LEADING TO DEGREES

The schedules on the next four pages show the normal sequence of the courses of instruction that lead to the several degrees. In order to become eligible to the degree corresponding to any one of the four courses of study, the student must complete the required work in Hygiene and Military Drill (or Physical Training; see the General Circular of Information) and the courses of instruction that are comprised in that curriculum. Normally any of these courses of study requires five years for completion.

I. *The Course Leading to the Degree of BACHELOR OF ARCHITECTURE*

FIRST YEAR

Theory of Architecture, 101.....	1	0
Elementary Design, 111, 112.....	3	3
Elements of Drawing, 131, 132.....	3	3
History of Architecture, 142.....	0	3
Descriptive Geometry, 151, 152.....	3	3
Advanced Algebra (Mathematics, 2).....	0	5
Physics or Chemistry.....	6	0
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Total number of hours each term.....	16	17

SECOND YEAR

Theory of Architecture, 201.....	1	0
Architectural Design, 213, 214.....	4	4
Elements of Color, 133.....	2	0
History of Architecture, 241, 242.....	3	3
Perspective, 251.....	1	0
Modeling, 234.....	0	2
Materials of Construction, 262.....	0	2
Analytic Geometry and Calculus (Mathematics, 8).....	3	3
English, 1.....	3	3
	<hr/>	<hr/>
Total number of hours each term.....	17	17

THIRD YEAR

Architectural Design, 213, 314.....	4	6
Life and Antiqu , 231, 232.....	3	3
Water Color, 332.....	0	2
Mechanics, 321.....	2	0
Strength of Materials, 322.....	0	3
Masonry Construction, 361.....	2	0
Carpentry, 363.....	2	0
Heating and Plumbing, 364.....	0	2
History of Painting and Sculpture, 341, 342.....	1	1
Public Speaking, 29.....	3	0
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Total number of hours each term.....	17	17

FOURTH YEAR

Architectural Design, 313, 414.....	6	10
Structural Design, 421, 422.....	3	2
Concrete Construction, (C. E., 280).....	0	3
Working Drawings, 461.....	4	0
Modern Architecture, 541.....	3	0
Elective.....	0	2
	<hr/>	<hr/>
Total number of hours each term.....	16	17

FIFTH YEAR

Architectural Design, 413.....	10	0
Architectural Thesis, 511.....	0	6
Elective.....	7	6
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Total number of hours each term.....	17	12

II. *An Optional Course Leading to the Degree of BACHELOR OF ARCHITECTURE and Related Especially to CONSTRUCTION*

FIRST YEAR

Theory of Architecture, 101.....	1	0
Elementary Design, 111, 112.....	3	3
Elements of Drawing, 131, 132.....	3	3
History of Architecture, 142.....	0	3
Descriptive Geometry, 151, 152.....	3	3
Advanced Algebra (Mathematics, 2).....	0	5
Physics (Courses 1 and 2 or 6) or Chemistry, 101.....	6	
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Total number of hours each term.....	16	17

SECOND YEAR

Theory of Architecture, 201.....	1	0
Architectural Design, 213, 214.....	4	4
Elements of Color, 133.....	2	0
History of Architecture, 241, 242.....	3	3
Perspective, 251.....	1	0
Modeling, 234.....	0	2
Mathematics, 5a, 5b.....	5	5
English, 1.....	0	3
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Total number of hours each term.....	16	17

THIRD YEAR

Architectural Design, 213.....	4	0
Life and Antique, 231, 232.....	3	3
Mechanics (C. E., 220-221).....	5	5
Mechanics Lab. (C. E., 220a-221a).....	1	1
Materials of Construction (C. E., 225).....	3	0
Heating and Plumbing, 364.....	0	2
Elementary Surveying (C. E., 101).....	0	3
English, 1.....	0	3
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Total number of hours each term.....	16	17

FOURTH YEAR

Architectural Design, 313, 314.....	6	6
Carpentry, 363.....	2	0
Structural Design (C. E., 270-271).....	4	3
Steel Buildings (C. E., 273).....	3	0
Concrete Construction (C. E., 280).....	0	3
Materials Laboratory (C. E., 226).....	0	3
History of Painting and Sculpture, 341, 342.....	1	1
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Total number of hours each term.....	16	16

FIFTH YEAR

Thesis.....	0	6
Working Drawings, 461.....	4	0
Concrete Building Design (C. E., 282).....	3	0
Public Speaking.....	3	0
Elective.....	6	9
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Total number of hours each term.....	16	15

III. *The Course Leading to the Degree of BACHELOR OF FINE ARTS*

FIRST YEAR

Theory of Architecture, 101.....	1	0
Elementary Design, 111, 112.....	3	3
Elements of Drawing, 131, 132.....	3	3
History of Architecture, 142.....	0	3
Descriptive Geometry, 151, 152.....	3	3
Modeling, 234.....	0	2
English, 1.....	0	3
Physics or Chemistry.....	6	0
Total number of hours each term.....	16	17

SECOND YEAR

Theory of Architecture, 201.....	1	0
Life and Antique, 231, 232.....	3	3
Elements of Color, 133.....	2	0
Water Color, 332.....	0	2
History of Architecture, 241, 242.....	3	3
Perspective, 251.....	1	0
Advanced Perspective, 252.....	0	1
English, 1.....	3	3
History.....	3	3
Total number of hours each term.....	16	15

THIRD YEAR

Third Year Drawing, 333, 334.....	4	6
Still Life in Oils, 235.....	3	0
History of Painting and Sculpture, 341, 342.....	1	1
Historic Ornament, 742.....	0	2
History of Greek Sculpture, 1.....	0	3
Philosophy of the Fine Arts, 4.....	3	0
Anatomy, 24.....	3	3
History.....	3	3
Total number of hours each term.....	17	18

FOURTH YEAR

Fourth Year Painting, 435, 436.....	4	6
Composition, 531.....	1	0
Graphic Arts, 434.....	0	3
Philosophy.....	3	3
Elective.....	8	4
Total number of hours each term.....	16	16

FIFTH YEAR

Fifth Year Painting and Thesis, 535, 536.....	6	10
Color Composition, 431.....	3	0
Elective.....	8	6
Total number of hours each term.....	17	16

IV. *The Course Leading to the Degree of BACHELOR OF LANDSCAPE ARCHITECTURE*

FIRST YEAR

Theory of Architecture, 101.....	1	0
Elementary Design, 111, 112.....	3	3
Elements of Drawing, 131, 132.....	3	3
History of Architecture, 142.....	0	3
Descriptive Geometry, 151, 152.....	3	3
Advanced Algebra (Mathematics, 2).....	0	5
Physics or Chemistry.....	6	0
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Total number of hours each term.....	16	17

SECOND YEAR

Theory of Landscape Architecture, 204.....	0	1
Landscape Design, 215, 216.....	4	4
Elements of Color, 133.....	2	0
History of Architecture, 241, 242.....	3	3
Perspective, 251.....	1	0
Woody Plant Materials, 13.....	0	3
Analytic Geometry and Calculus (Mathematics, 8).....	3	3
English, 1.....	3	3
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Total number of hours each term.....	16	17

SUMMER SESSION (Second Summer)

Woody Plant Materials, S5.....	5
Herbaceous Plant Materials, S4.....	3
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Total hours.....	8

THIRD YEAR

Theory: Public Properties, 301.....	1	0
Landscape Design, 215, 316.....	4	6
Life and Antique, 231.....	3	0
Water Color, 332.....	0	2
History of Landscape Design, 344.....	0	3
Mechanics, 321.....	2	0
Strength of Materials, 322.....	0	3
Woody Plant Materials, 13.....	3	0
Elementary Surveying (C. E., 110).....	3	0
Advanced Surveying (C. E., 211A).....	0	3
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Total number of hours each term.....	16	17

FOURTH YEAR

Landscape Design, 315, 416.....	6	8
Drawing, 335.....	3	0
Planting Design, 18.....	1	1
Construction Details, 463.....	3	0
Concrete Construction (C. E., 280).....	0	3
Geology.....	3	0
Elective.....	0	4
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Total number of hours each term.....	16	16

FIFTH YEAR

Landscape Design, 415.....	8	0
Landscape Thesis, 513.....	0	6
Elective.....	6	4
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Total number of hours each term.....	14	10

COURSES OF INSTRUCTION GIVEN IN THE COLLEGE OF ARCHITECTURE

THEORY OF ARCHITECTURE

101. Theory of Architecture. First term. Credit one hour. Professor BOSWORTH. Lectures, with sketches and essays by the class.

201. Theory of Architecture. First term. Credit one hour. Prerequisite course 101. Professor BOSWORTH. Lectures, with sketches and essays by the class.

204. Theory of Landscape Architecture. Second term. Credit one hour. Professor DAVIS. Lectures and assigned reading.

301. Theory: Planning of Parks and Park Systems. First term. Credit one hour. Professor DAVIS. Lectures and assigned reading.

701. Theory of Architecture. Elective. First term. Credit one hour. Prerequisite course 314. Professor BOSWORTH. Lectures, with sketches and assigned work.

702. Theory of Architecture. Elective. Second term. Credit one hour. Prerequisite course 314. Continuation of Course 701. Either term or both may be taken. Professor BOSWORTH.

DESIGN

Courses in Landscape and Architectural Design are given by the Design Staff and consist of individual criticism over the drafting board.

111, 112. Elementary Design. Throughout the year. Credit three hours a term. Professor BOSWORTH and Assistant Professor ——. Elementary composition, with drawings in pencil and ink, rendered in wash and color.

213, 214. Sophomore Architectural Design. Throughout the year. Credit four hours a term. Prerequisite courses 111, 112. A series of problems in architectural composition and planning. Two of the problems each term are identical with those given in course 215, 216.

215, 216. Sophomore Landscape Design. Throughout the year. Credit four hours a term. Prerequisite, course 111, 112. A series of problems in landscape composition and planning. Two of the problems each term are identical with those given in course 213, 214.

313, 314. Junior Architectural Design. Throughout the year. Credit six hours a term. Prerequisite 900 points in course 213, 214. A series of problems in architectural composition and studies of detail. One problem each term is identical with that given in course 315, 316.

315, 316. Junior Landscape Design. Throughout the year. Credit six hours a term. Prerequisite, 900 points in course 215, 216. A series of problems in landscape composition and studies of detail. One problem each term is identical with that given in course 313, 314.

413, 414. Senior Architectural Design. Throughout the year. Credit ten hours a term. Prerequisite 600 points in course 313, 314. Prerequisite course for thesis.

415, 416. Senior Landscape Design. Throughout the year. Credit eight hours a term. Prerequisite, 600 points in course 315, 316. Prerequisite course for thesis.

511. Architectural Thesis. Credit six to ten hours. Prerequisite 500 points in Design 413-4.

513. Landscape Thesis. Credit six to ten hours. Prerequisite 500 points in Design 415-6.

714. Architectural Rendering. Second term. Credit three hours. Prerequisite course 314. Professor BURNHAM.

716. City Planning. Second term. Credit one hour. Mr. SCHUCHARDT. Lectures and assigned work during April and May, hours to be announced. Open to upperclassmen and graduates only.

THEORY OF CONSTRUCTION

321. Mechanics. First term. Credit two hours. Prerequisite course Mathematics 8. Professor YOUNG and Assistant Professor BAXTER. A brief study of the principles of analytic and graphic statics with reference to their application in Course 322. Recitations.

322. Strength of Materials. Second term. Credit three hours. Prerequisite course 321. Professor YOUNG and Assistant Professor BAXTER. A brief study of the effects of loading in producing stress and deformations. The classroom work is supplemented by problems relating to beams, columns, masonry, and very briefly to reinforced concrete. Two recitations and one computing period.

421, 422. Structural Design. First term, credit three hours; second term, credit two hours. Prerequisite courses 321, 322. Professor YOUNG and Assistant Professor BAXTER. The principles studied in Courses 321 and 322 are applied to the structural design of typical architectural problems. Lectures and reports.

721. Structural Analysis. First term. Credit three hours. Prerequisite course 422. Professor YOUNG. Open to a limited number of qualified upperclassmen and graduates.

FREEHAND DRAWING AND ART WORK

131, 132. Elementary Drawing. Throughout the year. Credit three hours a term. Assistant Professor CHAMBERLAIN. Pencil and charcoal drawing from geometric models and the cast.

133. Elements of Color. First term. Credit two hours. Professor STONE. Elementary color work from still life.

231, 232. Life and Antique. Throughout the year. Credit three hours a term. Professors BRAUNER and MIDJO. The work consists of drawing from the antique and from life.

234. Modeling. Second term. Credit two hours. Prerequisite course 131, 132. Professor MIDJO.

235. Still Life in Oils. First term. Credit three hours. Professor MIDJO.

332. Water Color. Second term. Credit two hours. Professor MIDJO.

333-334. Third Year Drawing. Throughout the year. Credit four hours first term; six hours second term. Professor MIDJO.

335. Drawing from Nature. First term. Credit three hours. Professor STONE.

431. Color Composition. First term. Credit three hours. Open only to upperclassmen by permission. Professor MIDJO.

433-434. Graphic Arts. Throughout the year. Credit two hours a term. Assistant Professor STONE. A study of illustrative mediums: etching, engraving, lithographing.

435-436. Fourth Year Painting. Throughout the year. Credit four hours first term; six hours second term. First term, Professor MIDJO; Second term, Professor BRAUNER.

531. Composition. First term. Credit one hour. Professor MIDJO. Exercises in composition in black and white and in color.

535-536. Fifth Year Painting. Throughout the year. Credit six hours first term; ten hours second term. First term, Professor MIDJO; Second term, Professor BRAUNER.

HISTORY

142. History of Architecture. Second term. Credit three hours. Professor PHELPS. Egyptian, Greek, Roman, and Byzantine architecture. Lectures with assigned readings, sketches, and examinations.

241. **History of Architecture.** First term. Credit three hours. Prerequisite course 142. Professor PHELPS. Romanesque and Gothic architecture. Lectures with assigned readings, sketches, and examinations.

242. **History of Architecture.** Second term. Credit three hours. Prerequisite course 241. Professor PHELPS. Architecture of the Renaissance and to the beginning of the nineteenth century in the principal European countries. Lectures with assigned reading, sketches, and examinations.

341, 342. **History of Painting and Sculpture.** Throughout the year. Credit one hour a term. Professor BRAUNER. A brief survey of the history of Greek sculpture and of Italian painting.

344. **History of Landscape Design.** Second term. Credit three hours. Professor DAVIS. Lectures, sketches, and assigned reading.

541. **Modern Architecture.** First term. Credit three hours. Prerequisite course 242. Professor PHELPS. Nineteenth century architecture in the principal European countries and colonial and more recent work in the United States.

742. **Historic Ornament.** Second term. Credit two hours. Prerequisite course 242. Professor 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.

743, 744. **Historical Seminary.** Throughout the year. Credit one hour a term. Professor 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.

GRAPHICS

151, 152. **Descriptive Geometry.** Throughout the year. Credit three hours a term. Professor YOUNG and Assistant Professor BAXTER. The fundamental principles of descriptive geometry are studied and applied to the solution of problems in projection. Lectures and drawing.

251. **Perspective.** First term. Credit one hour. Prerequisite courses 151, 152. Professor MARTIN. Lectures and drawing.

252. **Advanced Perspective.** Second term. Credit one hour. Prerequisite course 251. Professor MARTIN. Lectures and drawing.

APPLIED CONSTRUCTION

262. **Materials of Construction.** Second term. Credit two hours. Professor MARTIN. A brief study of the properties, characteristics, manufacture, and use of the more common materials used in building construction, as plaster, lime, cement, clay products, stone, metals, and wood.

361. **Masonry Construction.** First term. Credit two hours. Prerequisite course 262. Professor MARTIN. Masonry construction as applied to buildings, including survey and setting out, foundation soils, drainage and water-proofing, structural foundations, concrete, stonework, brickwork, tile and terra cotta work, fireproofing, plaster, and stucco.

363. **Carpentry and Roofing.** First term. Credit two hours. Prerequisite Course 262. Professor MARTIN. A study of carpentry and joinery as applied to the construction and finish of buildings and a study of roofing with shingles, sheet metals, bituminous compositions, slates, tiles, etc.

364. **Heating, Plumbing, and Lighting.** Second term. Credit two hours. Professor MARTIN. A brief study of the principles of heating, ventilation, plumbing, and lighting. Lectures and exercises.

461. **Working Drawings and Specifications.** First term. Credit four hours. Prerequisite courses 361 and 363. Professor MARTIN. The work of this course consists in the preparation of scale drawings and details approximating office practice as closely as possible, and including specification notes and a brief study of the principles of specification writing.

463. **Construction Details.** First term. Credit three hours. Professor LAWRENCE. Engineering problems peculiar to landscape work.

762. Fire Resisting Construction. Second term. Credit two hours. Professor MARTIN. A study of fire prevention and fire protection in the design, construction, and equipment of buildings. Lectures and assigned reading.

13. Woody-Plant Materials. Second and first terms. Credit three hours a term. Lectures, laboratories, and field trips. Professor CURTIS. A brief study of the characteristics and requirements of trees, shrubs, and vines for landscape planting. Laboratory fee, \$1.50.

18. Planting Design. Throughout the year. Credit one hour. Professor DAVIS.

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 of twelve regular companies, a battalion of field artillery of three batteries, one headquarters company, one machine gun company, and a band.

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

All women in the first two years of undergraduate courses, and all men of those two classes who are excused from 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 Circular of Information.

HYGIENE AND PREVENTIVE MEDICINE

All students in the first two years of undergraduate courses are required to attend lectures on Hygiene and Preventive Medicine given once a week throughout the college year.

COURSES GIVEN IN THE COLLEGE OF ARTS AND SCIENCES

MATHEMATICS

2. Advanced Algebra. Repeated in second term. Credit five hours.

3. Plane Trigonometry. Repeated in second term. Credit three hours.

4, 5, 6. Analytic Geometry and Calculus. Primarily for students in the College of Engineering. Prerequisite courses 2, 3, or their equivalent. These courses are offered each term.

4. Credit three hours.

5. Credit five hours. Continuation of Course 4.

6. Credit three hours. Continuation of Course 5.

8. Analytic Geometry and Calculus. Throughout the year. Credit three hours a term. Prerequisite courses 2, 3, or their equivalents.

ENGLISH

1. Introductory Course. Throughout the year. Credit three hours a term. Assistant Professor SMITH and assistants.

29. Oral Expression. First term. Credit three hours. Professor ———. While other forms of address will not be ignored, the emphasis in this course will be upon training for the clear and convincing interpretation of drawings or plans for important projects as they might be presented before building committees, city councils, civic societies, etc. Problems for discussion will be taken from the daily work of the students.

GREEK ART AND ANTIQUITIES

1. **History of Greek Sculpture.** Throughout the year. Credit three hours a term. Professor ANDREWS. Lectures in the *Museum of Casts*.

PHILOSOPHY

4. **The Fine Arts; their Philosophy and History in Outline.** First term. Credit three hours. Professor HAMMOND. An elementary course on aesthetics. Lectures, assigned readings, and examinations.

PHYSICS

2. **Introductory Experimental Physics.** Repeated in second term. Credit five hours. Three lectures, one two-hour classroom period and one two-hour laboratory period each week. Professors MERRITT and GIBBS. Classroom and laboratory work. Hours to be arranged. Assistant Professor HOWE and assistants.

CHEMISTRY

1. **Introductory Inorganic Chemistry.** Repeated in second term. Credit six hours. Lectures, recitations, and laboratory. 1a. Lectures. Professor BROWNE and Mr. ———. 1b. Recitations and laboratory.

GEOLOGY

1. **Elementary Geology.** Repeated in second term. Credit three hours. Professor RIES and assistants. Lectures and laboratory period. Students must register for laboratory assignments at *Elementary Geology Laboratory, McGraw Hall*, before the beginning of the course. Planned to give beginners the fundamental principles of this branch of science. Those desiring additional work in geology are advised especially to take one or more of the following courses: a1, 2, 11, 21, 32.

COURSE GIVEN IN THE MEDICAL COLLEGE

24. **Anatomy.** Throughout the year. Credit three hours a term. Professor KERR. A study in anatomy for the artist. Lectures and drawing periods.

COURSES GIVEN IN THE COLLEGE OF AGRICULTURE

1. **General Botany.** First and second terms. Credit three hours a term. Lectures and laboratories. This course is designed to furnish a general knowledge of the fundamental facts and principles of plant life. Laboratory fee \$2.50 a term; deposit, \$3, for the first term only.

SIX WEEKS SUMMER SESSION

- S 4. **Plant Materials, Herbaceous.** Credit three hours. Lectures and laboratories. Miss MINNS and Mr. PORTER. Must be accompanied by S 5. Laboratory fee, \$2.

- S 5. **Plant Materials, Woody.** Credit five hours. Lectures, laboratories and field trips. Professor CURTIS and Mr. PORTER. Must be accompanied by S 4. Laboratory fee, \$2.

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; measurement 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 Messrs. BROWN, PENDLETON, and BOYLES. *Lincoln Hall*.

211A. Advanced Surveying. For students in Forestry and Landscape Architecture. Second term. Credit three hours. Prerequisite course 110. Topographic, hydrographic, mine, and geodetic surveying and field astronomy; United States Public Land Surveys; precise measurements; transit and stadia; plane table; sextant; stream measurement; topographic reconnaissance; road location; circular curves; triangulation for the control of local surveys; base lines; field determinations of time, latitude, and azimuth. Recitations and field work. Textbook: Breed and Hosmer's *Higher Surveying*. Professor UNDERWOOD and Assistant Professor LAWRENCE.

220. Mechanics of Engineering. Sophomores. First term. Credit five hours. Repeated in one section, second term. Prerequisite course, Mathematics 5b. Statics of material point and of rigid bodies by graphic and by algebraic methods of analysis; chains and cords; centers of gravity; moments of inertia of plane figures; dynamics (kinetics) of a material point; impact; virtual velocities; centrifugal and centripetal forces; pendulums; moments of inertia of rigid bodies; dynamics (kinetics) of rigid bodies. Textbooks: Church's *Mechanics of Engineering*, and *Notes and Examples in Mechanics* supplemented by other printed notes and problems. Four recitations and one computing period a week. The computing period will be devoted to the solution of mechanics problems, the use of the slide rule, planimeter, etc. Emphasis will be placed upon correct numerical work and consistent use of proper units. Each student is required to provide himself with a slide rule of approved type. Professors GEORGE and RETTGER and Mr. HOWELL.

220-A. Mechanics Laboratory. Credit one hour. One two-and-one-half hour period a week. This course consists of experiments (both qualitative and quantitative) designed to illustrate the principles of Mechanics studied in Mechanics 220, the experiments to be performed by the students themselves. Working models will be used when practicable. Courses 220 and 220-A are closely correlated and must be taken concurrently. Professors GEORGE and RETTGER and Mr. HOWELL.

221. Mechanics of Engineering. Sophomores. Second term. Credit five hours. Continuation of Mechanics 220. Prerequisite course, Mechanics 220. Work; power; energy; fly-wheels; friction; dynamometers; general theorem of work and energy applied to machines; mechanics of materials including stress and strain, tension, shearing, compression, torsion, flexure; elastic curves; safe loads; columns; flexure of beams by semigraphic treatment. Review problems showing application of principles in Engineering Design. Text books: Church's *Mechanics of Engineering*, and *Notes and Examples in Mechanics*, supplemented by other printed notes and problems. Four recitations and one computing period a week. Professors GEORGE and RETTGER, and Mr. HOWELL.

221-A. Mechanics Laboratory. Credit one hour. One two-and-one-half hour period a week. Experiments designed to illustrate the principles of mechanics studied in Course 221. Courses 221 and 221-A are closely correlated and must be taken concurrently. Professors GEORGE and RETTGER, and Mr. HOWELL.

225. Materials of Construction. Sophomores. 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: Mill's *Materials of Construction*. Professor SCOFIELD.

226. Materials Laboratory. Juniors. Either term. Credit three hours. Prerequisite courses 221 and 225 and must be taken with or preceded by 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 with 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 five hours a week. Professor SCOFIELD.

270. Structural Design and Bridge Stresses. Juniors. First 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's *Structural Details*. 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 counterbracing; historical notes on truss bridges. The solution of many numerical examples taken from practice forms a prominent part of the class work. Three recitations a week. Assistant Professors URQUHART, BURROWS, and O'ROURKE, and Mr. WILLIAMS.

271. Structural Design. Juniors. Second 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: Johnson, Bryan and Turneure's *Modern Framed Structures*, Part III. Three computation and drawing periods a week. Assistant Professors URQUHART, BURROWS, and 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 building 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: Ketcham's *Steel Mill Buildings*. Report and drawings. Three two-hour periods a week. Assistant Professor BURROWS.

280. Concrete Construction. Juniors, Either term. Credit three hours. Prerequisite courses 220, 221, 225, and 226. 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*. Assistant Professors URQUHART and O'ROURKE, and Mr. WILLIAMS.

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*. Assistant Professors URQUHART and O'ROURKE.

ELECTIVE COURSES

The elective hours required in any of the regular courses leading to a degree may be taken either within or without the College of Architecture, subject only to the approval of the professor in charge of such course and of the Dean of the College of Architecture.

