USC School of Architecture

Qingyun Ma, an internationally-acclaimed architect, educator and founder of the Shanghai architectural firm, MADA s.p.a.m., was appointed dean and holder of the Della and Harry MacDonald Dean's Chair in Architecture in January.

The USC School of Architecture offers undergraduate and graduate education in architecture and architectural studies, landscape architecture, historic preservation and building science. Its faculty is active in professional practice, in design research, in the supervision of programs at the Gamble House and Freeman House and in extended professional education.

Work in the school is conducted in an intellectual climate, which promotes inquiry, introduces principles and values and teaches the disciplines necessary to work in collaboration with other professionals and to develop the common vocabulary essential to effective teamwork in later years.

Significantly, the school is located in the center of the second largest urban region in the country, which offers a unique understanding of 20th century growth and change. In such an environment the possibilities for teaching and learning are extraordinary.

The school is highly selective in its admissions and enjoys the strong support of alumni and the professions it serves. The opportunity exists for students to have close contact with faculty, other students and the practicing architects who assist them in their apprentice training.

An architecture curriculum was initiated at USC in 1914. In 1919, a Department of Architecture was created and a separate School of Architecture was organized in 1925. The school shares Watt and Harris Halls with the USC Roski School of Fine Arts and the Fisher Gallery.

USC School of Architecture
Watt Hall 204
(213) 740-2723
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arch.usc.edu

Administration
Qingyun Ma, M.Arch.
Dean

Douglas E. Noble, Ph.D.
Associate Dean

Scott Johnson, M.Arch.
Director, Master of Architecture Program

Sara Loe, M.Arch.
Assistant Director, Master of Architecture Program

Marc Schiler, LC, M.S.Arch.Sci.
Director, Master of Building Science Program

Kenneth Breisch, Ph.D.
Director, Historic Preservation Program

Robert S. Harris, M.F.A. (Arch.)
Director, Landscape Architecture Program

Edward R. Bosley, M.B.A.
James N. Gamble Director of the Gamble House

Faculty
Della and Harry MacDonald Dean's Chair in Architecture: Qingyun Ma, M.Arch.

MacDonald and Diane Rusling Becket Professor of Community Design: Charles A. Lagreco, M.F.A. (Arch.)

Professors: Kim Coleman, M.Arch.; Frank Dimster, M.Arch. (U.D.); Diane Ghirardo, Ph.D.; John V. Mutlow, M.Arch. (U.D.); Victor Regnier, M.Arch.*; Goetz Schierle, M.Arch., Ph.D.Arch.; Marc Schiler, M.Arch.Sci.; Roger Sherwood, M.S.Arch., M.C.R.P.; James Steele, Ph.D.

Associate Professors: Charles Lagreco, M.F.A. (Arch.); Graeme M. Morland, Dipl.Arch.; Amy Murphy, M.F.A.; Douglas E. Noble, Ph.D.

Assistant Professors: Brian D. Andrews, M.Arch.; Kara Bartelt, M.Arch.; Thomas Spiegelhalter, Dipl. Arch.

Visiting Professor: Gail Peter Borden, M.Arch.

Associate Professors of the Practice of Architecture: Kenneth Breisch, Ph.D.; Karen Kensek, M.Arch.

Assistant Professors of the Practice of Architecture: Janek Tabencki Dombrowa; Christoph Kapeller, M.Arch.; Gerald Knowles, M.Arch.; Michael Lehrer, M.Arch.; Sara Loe, M.Arch.; Lee Olvera, M.Arch.; Susanna Seierup,

M.Arch.; Paul Tang, M.Arch.; Selwyn Ting, M.Arch.

Adjunct Professors: Scott Johnson, M.Arch.; Stefanos Polyzoides, M.Arch., M.U.P.

Adjunct Associate Professors: Arthur Golding, M.Arch.; T. Jeff Guh, Ph.D.; James Tyler, B.F.A., B.Arch.; Edwin Woll, Ph.D.; Dimitry Vergun, M.S.

Lecturers: Richard Abramson, M.Arch.; Annie Allison, M.F.A.; Jeffrey Allsbrook, M.Arch.; Michael Arden, M.A.; Valery Augustin, M.Arch.; Tigran Ayrapetyan, M.S.; Aaron Bentley, MSAAD; Mark Bittoni, M.Arch.; Dan Brunn, M.Arch.; Pamela Burton, M.Arch., ASLA; Mina Mei-Szu Chow, M.Arch.; Annie Chu, M.S. (Arch.); Michael Chung, M.Arch.; Richard Corsini, M.Arch.; John R. Dale, S.M.Arch.Sci.; Katherine Diamond, B.Arch.; Arminda Diaz, B.Arch.; Don Dimster, M.Arch.; Liz Falletta, M.Arch.; Hunter Fleetwood, B.Arch.; Susan Fleiss, M.Arch.; Miller Fong, B.A.Arch.; Mark Gangi, B.Arch.; Arianne Groth, M.Arch.; Yo-Ichiro Hakomori, Ph.D.; Peyton Hall, M.E.D.; Michael Hricak, M.Arch.; Ali Jeevanjee, M.Arch.; Jennifer Lanski, M.F.A.; Steffen Leisner, M.Arch.; Andrew Liang, M.Arch; Rebecca Lowry, M.Arch.; Erik Mar, M.Arch.; David C. Martin, M.Arch.; Leonard Marvin, M.B.A.; Christy Johnson McAvoy, M.A.; Melanie Moossaian, M.L.Arch.; Jade Satterthwaite, M.L.Arch.; Janice Shimizu, M.Arch.; Niloofar Shokoohy, B.Arch.; Joe Sturges, B.F.A.; Doris Sung, M.Arch.; Sam Watters; Li Wen, M.Arch.; Kulapat Yantrasast, Ph.D.; Eui-Sung Yi, M.Arch.

Emeritus Professors: James Ambrose, M.S.; Robert Harris, M.F.A. (Arch.); Samuel T. Hurst, M.Arch.; Ralph Knowles, M.Arch.*

*Recipient of university-wide or school teaching award.

Degree Programs
The School of Architecture offers curricula leading to the following degrees.

Bachelor of Architecture: a five-year undergraduate accredited professional degree program.

Bachelor of Science in Architectural Studies: a four-year undergraduate non-professional architectural studies degree program providing specialization in related fields and an alternative path to graduate studies in architecture and other design fields.

Bachelor of Landscape Architecture: a four-year undergraduate degree program concentrating on design of spaces in the urban environment.

Minor in Architecture: provides the flexibility of complementing a student's major with an area of specialization. Not available for architecture majors.

Minor in Landscape Architecture: provides students with the ability to integrate the natural and cultural profession of landscape architecture into their course of study. Not available for architecture majors.

Minor in Urban Neighborhood Studies: an interdisciplinary program with a focus on neighborhoods as the fundamental building blocks of cities.

Master of Architecture (two tracks): The first track is a 48-unit, three-semester program for students who hold a first professional degree from an accredited school of architecture. The second track is a 64-unit, two-year accredited degree for students holding a pre-professional degree with a major in architecture.

Master of Historic Preservation: a 48-unit program designed to prepare individuals to work in a wide variety of fields in both the private and public sectors including: architecture, planning, historical consultation, real estate development, construction and conservation.

Master of Landscape Architecture: a 48-unit, three-semester program for students who hold a first degree in architecture or landscape architecture.

Master of Building Science: a 48-unit, two-year program for applicants who hold a Bachelor of Architecture, Bachelor of Architectural Engineering, Bachelor of Science in Engineering or Physics degree from an accredited school of architecture or engineering. Students with five-year professional degrees in architecture and a minimum of five years of experience may be given advanced standing.

Dual Degree in Architecture and Planning: a 72-unit program leading to the Master of Architecture and the Master of Planning degrees. Admission to both degree programs is required.

Dual Degree in Landscape Architecture and Planning: a 66-unit program leading to the Master of Landscape Architecture and Master of Planning degrees. Admission to both degree programs is required.

Certificate in Building Science: This program is intended as a supplementary credential for students enrolled in graduate course work in architecture, landscape architecture, historic preservation, urban planning or related disciplines, and also for practicing design and planning professionals with undergraduate or graduate degrees and related experience.

Certificate in Historic Preservation: This program is directed at practicing professionals who wish to obtain an academic credential for their involvement in historic preservation projects and at graduate students who wish to obtain a complementary credential to a degree.

Certificate in Landscape Architectural Studies: This program provides an opportunity for the designers of the built environment to obtain expertise in issues related to the spaces that surround buildings and the open public spaces of the city.

Certificate in Urbanism and the Built Environment: The focus of this program is on the architecture and urban environment in cities throughout the world where conditions of increasing density require design initiatives that support amenity, sustainability and cultural meaning.

National Architecture Accrediting Board Statement

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees, the Bachelor of Architecture, the Master of Architecture and the

Doctor of Architecture. A program may be granted a six-year, three-year or two-year term of accreditation, depending on the extent of its degree of conformance with established educational standards.

Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The USC School of Architecture Bachelor of Architecture and Master of Architecture "+2" programs are accredited by the National Architecture Accrediting Board.

Undergraduate Degrees

Bachelor of Architecture

The bachelor's degree program begins intensively with architectural studies in the first year and provides for a mix of architectural and general university studies throughout the program. The curriculum includes two cycles of development. The first cycle of six semesters provides a foundation in understanding architecture, concluding with integrative studies after two years of introductory work. The second cycle, four semesters, provides the opportunity to explore many aspects of architecture and to develop individual strengths and interests. The second cycle, and the program, concludes with a comprehensive project with a component of directed research defined by the student based on choice and initiative.

Admission as a First Year Student

All applicants to the School of Architecture must complete the university application and submit it to the USC Office of Admission along with Scholastic Aptitude Test (SAT) or other test scores. All applicants, including international students, must submit a portfolio.

Admission with Advanced Placement

It is possible, in selected instances, that a transfer student from an accredited community college or other university may be eligible for advanced placement at the second-year level if previous work includes a minimum of 32 semester units of acceptable academic credit in a pre-architecture program. The

academic credit must include 8 semester units in architectural design or environmental design. Students accepted for advanced placement must still comply with all requirements for the degree.

Advanced placement applicants are required to submit a design portfolio to the School of Architecture.

Summer Transfer Courses

A summer design studio and drawing course allows highly qualified students transferring from community college or other university programs to be evaluated for advanced placement in the fall semester. Applicants must submit a university application and portfolio by February 1 for consideration. During the summer transfer courses, students must demonstrate significant design and drawing skills to justify advanced placement. Successfully completing these summer transfer courses allows students to reduce the required 10-semester design sequence by two semesters, reducing USC residency to four years. This either provides for advanced placement into the second year or gives credit for ARCH 102abL and ARCH 105L if these courses are passed with under B grades. For more information, contact the school at (213) 740-2420.

Transfer students who are admitted with fewer than 32 units of college level work and who have only limited drawing or design skills may be considered for placement in the first year of the five-year design sequence. Previous academic work may in part be applied toward required and elective courses for the five-year Bachelor of Architecture program.

Advisement

The School of Architecture maintains student advisors for the benefit of all students in the school. Soon after being accepted, new students are advised to make an appointment for preregistration advisement. A complete record is kept of the progress for each student while in attendance. Appointments with an advisor may be scheduled at any time during the academic year.

Design Studio Grade Point Average Requirement

Less than average work in design is not considered sufficient for a professional degree. Students must receive a grade of C (2.0) or above in each semester of design (ARCH 102abL, ARCH 202abL, ARCH 302abL, ARCH 402abcL, ARCH 502aL) in order to continue in the design sequence and to graduate. Students will be required to repeat the course until such a grade is achieved.

Transfer Limit for Design Studio Credit

School of Architecture majors enrolling for a semester of study off campus are limited to the transfer of only one design studio course within the ARCH 402abcL sequence. Approval of transfer credit will be dependent upon portfolio review by an appointed faculty review committee.

Pass/No Pass Courses

Architecture students are permitted to take a maximum of 24 units of non-architecture electives, exclusive of the writing require-ments, MATH 108 and PHYS 125L, on a pass/no pass basis. No more than 4 units of pass/no pass courses may be applied to general education requirements; no more than 4 units may be taken in one semester. Students who have taken non-architecture courses pass/no pass in the past (i.e., before admission to architecture) may count such pass/no pass courses toward, but not in addi-tion to, the maximum of 24 units.

Schedule Choices

Students in upper division (ARCH 402abcL) may substitute any fall or spring semester by completing degree requirements, including design studio, by enrolling during summer session. This substitution does not provide for acceleration of the degree but does allow for make up so that students may get back on schedule for the five-year degree.

Time Limits

While there are no specific time limits for completing the bachelor's degree (except in the case of discontinued programs) the School of Architecture may require additional course work of students who remain in the degree program beyond six years.

Five-Year Curriculum for the Bachelor of Architecture Degree

FIRST YEAR, FIRST SEMESTER		UNITS
ARCH 102aL	Architectural Design I	4
ARCH 105L	Fundamentals of Design Communication	2
ARCH 114	Architecture: Culture and Community	2
General Education	Social Issues	4
MATH 108*	Introductory College Mathematics, or	
WRIT 140*	Writing and Critical Reasoning	4
		16

FIRST YEAR, SECOND SEMESTER		UNITS
ARCH 102bL	Architectural Design I	4
ARCH 214a	History of Architecture	4
PHYS 125L**	Physics for Architects	4
General Education, or		
WRIT 130*	Analytical Writing	4
		16

SECOND YEAR, FIRST SEMESTER		UNITS
ARCH 202aL	Architectural Design II	6
ARCH 213a	Building Structures and Seismic Design	3
ARCH 214b	History of Architecture	4
General Education		4
		17

SECOND YEAR, SECOND SEMESTER		UNITS
ARCH 202bL	Architectural Design II	6
ARCH 211	Materials and Methods of Building Construction	3
ARCH 213b	Building Structures and Seismic Design	3
General Education		4
		16

THIRD YEAR, FIRST SEMESTER		UNITS
ARCH 215	Design for the Thermal and Atmospheric Environment	3
ARCH 302aL	Architectural Design III	6
ARCH 313	Design of Building Structures	3
General Education		4
		16

THIRD YEAR, SECOND SEMESTER		UNITS
ARCH 302bL	Architectural Design III	6
ARCH 315	Design for the Luminous and Sonic Environment	3
ARCH 411	Architectural Technology	3
General Education		4
		16

FOURTH YEAR, FIRST SEMESTER		UNITS
ARCH 314	History of Architecture: Contemporary Issues	3
ARCH 402aL	Architectural Design IV	6
ARCH 525	Professional Practice: Pre-Design, Project and Office Administration	3
Electives		4
		16

FOURTH YEAR, SECOND SEMESTER		UNITS
ARCH 402bL	Architectural Design IV	6
ARCH 526	Professional Practice: Legal and Economic Context, Project Documentation	3
WRIT 340	Advanced Writing	4
Electives		3
		16

FIFTH YEAR, FIRST SEMESTER		UNITS
ARCH 402cL	Architectural Design IV	6
Electives		9
		15

FIFTH YEAR, SECOND SEMESTER		UNITS
ARCH 501	Comprehensive Studio Support and Enrichment	2
ARCH 502aL	Architectural Design V	6
Electives		8
		16

*All students must enroll in WRIT 140 in the fall except those who are required to take MATH 108. These students must take WRIT 130 the following spring.

**PHYS 125L fulfills the General Education require-ment in Category III.

Core Requirements

In order to take advantage of elective oppor-tunities in the advanced program, students must complete the following courses before the end of the special integrative semester (third year, first semester): ARCH 102abL, ARCH 105L, ARCH 114, ARCH 202abL, ARCH 211, ARCH 213ab, ARCH 214ab, ARCH 215; MATH 108 (or equivalent); PHYS 125L (or equivalent); and WRIT 140 or WRIT 130.

Allocation of Elective Units

A total of 24 units of electives is included toward completion of the 160 units for the degree.

Professional Electives

A minimum of 12 units in architecture is required.

Free Electives

An additional 12 units in any category of pro-fessional courses, humanities, social sciences and communication and natural sciences. Natural sciences include astronomy, biologi-cal sciences, chemistry, computer science, geological sciences, mathematics (excluding MATH 108 or equivalent) and physics (excluding PHYS 125L or equivalent).

General Education Requirements
The university's general education program provides a coherent, integrated introduction to the breadth of knowledge you will need to consider yourself (and to be considered by other people) a generally well-educated person. This program requires six courses in different categories, plus writing and diversity requirements, which together comprise the USC Core. See pages 60 and 231 for more information.

Students who are required to take MATH 108 during the freshman year may take their Social Issues course in the fall and WRIT 130 separately in the spring.

Bachelor of Science, Architectural Studies

The Bachelor of Science in Architectural Studies program begins intensively with architectural studies in the first two years and provides a mix of architectural and general university studies throughout the program. The curriculum includes a core program in the first two years identical to the Bachelor of Architecture professional degree program. The last two years provide the opportunity to explore many aspects of architecture and related fields and to develop individual strengths and interests. Students take an introductory course in specialization in the second year, which provides an introduction to related fields and alternative degree options. Students can elect to move into the four-year non-professional B.S. in Architectural Studies program with a degree plan identifying electives fulfilling an area of concentration. The program is concluded with a seminar with all degree candidates, allowing for collaborative work on areas of common interest.

Admission as a First Year Student
All applicants to the School of Architecture must complete the university application and submit it to the USC Office of Admission along with Scholastic Aptitude Test (SAT) or other test scores. All applicants, including international students, must submit a portfolio.

Admission with Advanced Placement
It is possible, in selected instances, that a transfer student from an accredited community college or other university may be eligible for advanced placement at the second-year level if previous work includes a minimum of 32 semester units of acceptable academic credit in a pre-architecture program. The academic credit must include 8 semester units in architectural design or environmental design. Students accepted for advanced placement must still comply with all requirements for the degree.

Advanced placement applicants are required to submit a design portfolio to the School of Architecture.

Summer Transfer Studio
A summer design studio allows highly qualified students transferring from community college or other university programs to be evaluated for advanced placement in the fall semester. Applicants must submit a university application and portfolio by February 1 for consideration. During the summer studio, transfer students must demonstrate significant design and drawing skill to justify advanced placement. Transfer students who are admitted with fewer than 32 units of college level work and who have only limited drawing or design skills may be considered for placement in the first year of the four-year program. Previous academic work may in part be applied toward required and elective courses for the four-year B.S. in Architectural Studies program. For more information about this program, contact the school at (213) 740-2420.

Advisement
The School of Architecture maintains student advisors for the benefit of all students in the school. Soon after being accepted, new students are advised to make an appointment for pre-registration advisement. A complete record is kept of the progress for each student while in attendance. Appointments with an advisor may be scheduled at any time during the academic year.

Design Studio Grade Point Average Requirement
Less than average work in design studio is not considered sufficient for a continuation in the design studio sequence. Students must receive a grade of C (2.0) or above in each semester of design in order to continue in the design sequence. Students in the first two years of the program are required to repeat the course until such a grade is achieved.

Pass/No Pass Courses
Architecture students are permitted to take a maximum of 24 units of non-architecture electives, exclusive of the writing requirements, MATH 108 and PHYS 125L, on a pass/no pass option. No more than 4 units of pass/no pass courses may be applied to general education requirements; no more than 4 units may be taken in one semester.

Students who have taken non-architecture courses pass/no pass in the past (i.e., before admission to architecture) may count such pass/no pass courses toward, but not in addition to, the maximum of 24 units.

Time Limits
While there are no specific time limits for completing the B.S. in Architectural Studies degree (except in the case of discontinued programs) the School of Architecture may require additional course work of students who remain in the degree program beyond six years.

Four-Year Curriculum for the Bachelor of Science in Architectural Studies Degree

FIRST YEAR, FIRST SEMESTER		UNITS
ARCH 102aL	Architectural Design I	4
ARCH 105L	Fundamentals of Design Communication	2
ARCH 114	Architecture: Culture and Community	2
MATH 108*	Precalculus, or	
WRIT 140*	Writing and Critical Reasoning	4
General Education	Social Issues	4
		16

FIRST YEAR, SECOND SEMESTER		UNITS
ARCH 102bL	Architectural Design I	4
ARCH 214a	History of Architecture	4
PHYS 125L**	Physics for Architects	4
WRIT 130	Analytical Writing, or	
General Education		4
		16

SECOND YEAR, FIRST SEMESTER		UNITS
ARCH 202aL	Architectural Design II	6
ARCH 213a	Building Structures and Seismic Design	3
ARCH 214b	History of Architecture	4
General Education		4
		17

SECOND YEAR, SECOND SEMESTER		UNITS
ARCH 202bL	Architectural Design II	6
ARCH 211	Materials and Methods of Building Construction	3
ARCH 213b	Building Structures and Seismic Design	3
ARCH 270	Introduction to Architectural Studies	2
Elective		2
		16

THIRD YEAR, FIRST SEMESTER		UNITS
ARCH 215	Design for the Thermal and Atmospheric Environment	3
ARCH 313	Design of Building Structures	3
WRIT 340	Advanced Writing, or	
General Education		4
Professional electives		6
		16

THIRD YEAR, SECOND SEMESTER		UNITS
ARCH 315	Design for the Luminous and Sonic Environment	3
ARCH 411	Architectural Technology	3
General Education		4
Professional electives		6
		16

FOURTH YEAR, FIRST SEMESTER		UNITS
ARCH 314	History of Architecture: Contemporary Issues	3
ARCH 525	Professional Practice: Pre-Design, Project and Office Administration	3
General Education		4
Professional electives		6
		16

FOURTH YEAR, SECOND SEMESTER		UNITS
ARCH 526	Professional Practice: Legal and Economic Context, Project Documentation	3
ARCH 470	Capstone Seminar	4
General Education or elective		5
Professional electives		3
		15

Total minimum units required: 128

*All students must enroll in WRIT 140 in the fall except those who are required to take MATH 108. These students must take WRIT 130 the following spring.

**PHYS 125L fulfills the General Education requirement in Category III.

Requirements for B.S. in Architectural Studies degree
A total of 25 units of professional electives, including ARCH 470 Capstone Seminar, are required in an area of specialization, which must be selected from the accepted professional elective offerings in the School of Architecture. This is in addition to the core, elective and general education requirements of the Bachelor of Architecture degree, which are identical for the first two years of the Bachelor of Science in Architectural Studies.

In the third and fourth year of the program, the requirements for the Bachelor of Architecture design studios, ARCH 302abL and ARCH 402ab – 24 units – are changed to the professional electives requirement. The full degree requirements are described above.

Core Requirements
Students must complete the following core courses as a prelude to the upper division professional electives and degree requirements: ARCH 102abL, ARCH 105L, ARCH 114, ARCH 202abL, ARCH 211, ARCH 213ab, ARCH 214ab, and ARCH 270, MATH 108 (or equivalent), PHYS 125L (or equivalent), and WRIT 140 or WRIT 130.

General Education Requirements
The university's general education program provides a coherent, integrated introduction to the breadth of knowledge you will need to consider yourself (and to be considered by other people) a generally well-educated person. This program requires six courses, in different categories, plus writing and diversity requirements, which together comprise the USC Core. See pages 60 and 231 for more information. Students who are required to take MATH 108 during the freshman year may take their Social Issues course in the fall and WRIT 130 separately in the spring. Others will take WRIT 140 in the fall and will have one additional free elective (4 units).

Bachelor of Landscape Architecture

The degree in landscape architecture provides the ability to critically examine and creatively respond to a wide array of environmental issues and purposes. New professionals must be equipped to take on the challenge of working in interdisciplinary fields, mediating between the goals and desires of diverse groups while soliciting their participation. Generating creative solutions for forming a supportive and humane urban environment requires certain fundamental skills. This program encourages development of students' skills and abilities so that they can flourish in a professional setting:

• Knowledge of the physical world and the interrelationships between humans and the natural systems of which they are part.

• The ability to define the critical issues of places and sites through inventory, analysis and resolution of physical, social and cultural forces and meanings.

• The ability to use knowledge and experience to creatively respond to the problems that confront them and the dedication to understand great purpose and to take effective action.

• The ability to effectively communicate with peoples of diverse backgrounds through both words and images.

• The ability to interact collaboratively with individuals, community groups, public agencies or large corporations.

• Familiarity with new technologies, their impacts and their potential for the profession of landscape architecture and land planning.

• Awareness of the constant evolution of knowledge and a commitment to continually reexamine assumptions.

The Bachelor of Landscape Architecture is a four-year program of lectures, seminars and studio courses in conjunction with general education courses. Through academic research, personal participation and group endeavor, the program will introduce students to historic and contemporary issues in landscape architecture. Projects will concentrate on the design of spaces in the urban landscape. This emphasis derives from our location in Southern California, at the very heart of an exuberant and dynamic metropolitan area.

Each semester, the design studio will be paired with courses that develop technical skills, expand the students' working knowledge of plant materials and natural systems, and explore the history and theory of design. A component of each studio project will be team-oriented to develop the ability to work collectively.

Curriculum

FIRST YEAR, FIRST SEMESTER		UNITS
ARCH 102aL	Architectural Design I	4
ARCH 105L	Fundamentals of Design Communication	2
ARCH 114	Architecture: Culture and Community	2
General Education*	Social Issues	4
WRIT 140*	Writing and Critical Reasoning	4
		16

*Taken concurrently

FIRST YEAR, SECOND SEMESTER		UNITS
ARCH 102bL	Architectural Design I	4
ARCH 211	Materials and Methods of Building Construction	3
General Education		8
		15

SECOND YEAR, FIRST SEMESTER		UNITS
ARCH 202aL	Architectural Design II	6
ARCH 304x	Intensive Survey: Pre-History to the Present	4
ARCH 361L	Ecological Factors in Design	3
General Education		4
		17

SECOND YEAR, SECOND SEMESTER		UNITS
ARCH 260L	Landscape Architecture Design I	6
ARCH 362	Landscape Architecture Construction	3
ARCH 363	Plant Material Identification: Horticulture	4
ARCH 465	History of Landscape Architecture	4
		17

THIRD YEAR, FIRST SEMESTER		UNITS
ARCH 360aL	Landscape Architecture Design II	6
ARCH 364	Materials and Methods of Landscape Architecture	3
GEOG 345	Conservation of Natural Resources, or	
GEOG 477	Water Resources	4
WRIT 340	Advanced Writing	4
		17

THIRD YEAR, SECOND SEMESTER		UNITS
ARCH 207	Computer Applications in Architecture	2
ARCH 360bL	Landscape Architecture Design II	6
ARCH 463	Plant Material Identification: California Plant Communities	4
General Education		4
		16

FOURTH YEAR, FIRST SEMESTER		UNITS
ARCH 460L	Landscape Planning Studio	6
ARCH 466	Nature Landscapes and Gardens in Non-Western Cultures	4
PPD 100	Los Angeles, The Enduring Pueblo	4
General Education		4
		18

FOURTH YEAR, SECOND SEMESTER		UNITS
ARCH 461L	Landscape Architecture Comprehensive Project	6
ARCH 525	Professional Practice: Pre-Design, Project and Office Administration	3
Electives		5
		14

Total units required: 130

Minors in Architecture

Minor in Architecture

The minor in architecture provides the flexibility of complementing a student's major with an area of specialization. Taking a minor in architecture is a unique opportunity for a student to stimulate his or her imagination and learn creative approaches to problem solving.

Admission Requirements
Students in good academic standing who have completed the freshman year are eligible.

Course Requirements
The requirements for the minor include three required courses (8 units) and a minimum of 12 units of upper division courses.

REQUIRED COURSES		UNITS
ARCH 106x	Workshop in Architecture	2
ARCH 114	Architecture: Culture and Community	2
ARCH 304x	Intensive Survey: Prehistory to the Present	4

Students may elect to take the upper division courses in an area of specialization, such as architectural history and theory, historical preservation, computers and design, visual communication, landscape architecture, public places – urban spaces, housing or practice management. This minor is not available to architecture majors.

Minor in Landscape Architecture

The minor is intended to help students understand the role of landscape architecture as a means for the integration of natural systems and landscapes with cultural values and purposes. Studies about natural resources and their importance in the built environment are joined with studies of the art of the garden. Landscape design, literature, music, painting and sculpture will be presented as it relates to physical settings, patterns of inhabitation and cultural rituals and meanings. This is an excellent emphasis for students in environmental studies, civil engineering, planning and anthropology. This minor is not available to architecture majors.

Admission Requirements
Students in good academic standing who have completed the freshman year are eligible.

Course Requirements
The minor in landscape architecture consists of three required courses (9 units) and a minimum of 14 units of upper division courses.

REQUIRED COURSES		UNITS
ARCH 106x	Workshop in Architecture	2
ARCH 361L	Ecological Factors in Design	3
ARCH 465	History of Landscape Architecture (Western Tradition)	4

UPPER DIVISION COURSES (14 UNITS)		UNITS
ARCH 363	Plant Material Identification: Horticulture	4
ARCH 364	Materials and Methods of Landscape Architecture	3
ARCH 432	People, Places and Culture: Architecture of the Public Realm	4
ARCH 466	Nature, Landscape and Gardens in Non-Western Cultures	4

ARCH 499	Special Topics	2-4
ARCH 532	Elements of the Urban Landscape	2
ARCH 533	Urban Landscape Case Studies	2
ARCH 536	The Landscape Planning Process	4
ARCH 561	Architecture in the Urban Landscape: Projects and Places	2
ARCH 563	Architecture in the Urban Landscape: Comparative Theories	2

Minor in Urban Neighborhood Studies
The focus of this minor is on the quality of urban life at the scale of the neighborhood or district. The minor is supported by the four "urban schools" of USC: Architecture, Education, Social Work, and Policy, Planning, and Development. See Interdisciplinary Programs, page 105, for requirements.

International and Other Programs

Spring Semester in Italy: Milan-Como Anthony A. Marnell II, Italian Architecture Studies Program
The School of Architecture has a study-abroad program in Milan, a city in the fore-front of Italian modern architecture and the center of Italian design. Students are housed and have classroom and studio space in Como, a small and pleasant lakeside town about 30 miles from Milan.

The program is held in the spring semester. A full semester of study includes courses in design; history and theory; technology; and cultural studies. Fourth-year students are eligible for the program.

The Milan-Como Program is one of two U.S. school of architecture programs in this part of Italy. Strong relationships are fostered with the place, its people and culture.

Visits are planned to Rome, Florence, Sienna and Venice, and there are opportunities for travel and study in Austria, Switzerland, France and Germany.

Fall Semester in France
The school also offers a study abroad program in Saintes, France. The goal of the 15-unit semester program in France is to provide a place for 14 fourth- and fifth-year architecture students to extend the boundaries of their architectural studies beyond the USC campus. Students develop an understanding of the relationship between architecture and the culture that influences it, which serves to build a broader, more thoughtful, critical framework for their own work. Students experience first-hand significant architectural built work from Medieval times to the present day in a variety of European locations. They compare the development of architecture in Europe, especially France, with that which has occurred in the United States.

The city of Saintes has provided a 5,800 square foot building in the historical medieval section of the city for the program. The facilities include housing for students and faculty, kitchen and dining area, and studio work space as well as a model shop, library, computer center and garden. The new Sarah Campbell Blaffer Gallery is an important part of the partnership with the local community and is used for displaying student and faculty work and other significant projects.

Summer Programs
The School of Architecture offers a number of summer program options that allow students to complete a full 16-unit semester that would typically be completed during a fall or spring semester. These options do not provide for acceleration of the degree but do allow for make up so that students may get back on schedule. Students who complete a full 16 units of degree requirements during the summer could take a following fall or spring semester off to travel or work and still graduate on schedule for the five-year degree.

Summer Semester in Asia
The School of Architecture offers a summer semester in Asia. Accompanied by USC faculty, students will spend the first two weeks in Japan, including study tours in Tokyo and Kyoto. They will next visit Shanghai for 10 days where housing will be provided by Fudan University. The remainder of the time will be spent in Kuala Lumpur in residence at the University of Malaya. During this time, USC students will work on a project in cooperation with students from the School of Architecture at the University of Malaya.

The purpose of this program is to offer students in the School of Architecture an opportunity to:

• work on a real project in a country where development is a prime goal of the government and where opportunities for

architecture students to complete internships and gain employment after graduation are expanding;

• work with the physical requirements, governmental regulations and economic situations that affect the design of projects that can be realized;

• become familiar with practitioners in Malaysia and Singapore to learn about architectural practice in these areas; and

• expand appreciation of the importance of Asian development in the current world market and show practitioners USC graduates' ability to contribute to development in Asia.

Summer Studio in Los Angeles
Upper division students at USC and students at any level from other accredited schools of architecture may enroll in summer design studies for design credit. Special project opportunities are arranged to encourage full use of Los Angeles as an excellent architectural laboratory.

Graduate Studies Abroad Programs
The School of Architecture offers two programs for summer graduate study abroad. The purpose of the programs is to offer graduate architecture students the opportunity to study the built fabric of another culture first-hand and engage in a focused urban studies problem in that culture. The programs also strive to expand appreciation of the importance of Asian development in the current world market and show practitioners USC graduates' ability to engage in and contribute to development in Asia.

Graduate Studies Abroad Program
This 10- to 13-unit program is for graduate students in all four graduate program areas. Accompanied by USC faculty, students will

spend 12 weeks on Hainan Island in the South China Sea studying new town development and developing either a building studio project or a directed research project. The program includes a week-long field-studies trip to southern Chinese cities including Guangzhou, Zhuhai, Shenzen and Hong Kong and a second week-long, field studies trip to northern Chinese cities including Shanghai, Beijing and Xian.

Graduate Studies Abroad Lab
This 4-unit lab is for graduate students in all four graduate program areas. Accompanied by USC faculty, students will spend four weeks on Hainan Island in the South China Sea studying new town development; the lab includes a week-long field-studies trip to southern Chinese cities including Guangzhou, Zhuhai, Shenzen and Hong Kong.

The Building Science Program in Civil Engineering
The Department of Civil Engineering offers an undergraduate program leading to the degree of Bachelor of Science in Civil Engineering, with an emphasis in building science. The curriculum includes most of the work which is required for the major in structures, plus 30 units in architectural studies offered by the School of Architecture. See the Viterbi School of Engineering section of this catalogue for further information.

Exploration of Architecture Summer Program for High School Students
The School of Architecture offers two- and four-week programs for high school students (ages 15 or older) who have no previous experience but are interested in architecture. The program, which began in 1983, is particularly rewarding for students who are contemplating a career in architecture. However, all students find the exposure to the unique problem-solving methodologies of architecture a benefit regardless of their final career choice. Living on campus in a USC residence hall, high school students experience what it is like to be a university student. They participate in studio classes with professional critics and present their ideas in reviews attended by parents and friends. The program also exposes them, through case studies, sketching exercises and field trips, to some of the most dramatic and impressive historical and modern architecture of Los Angeles. International students have especially appreciated the opportunity to pursue this summer program of study that is not highly dependent on English language skills. Limited financial assistance is available.

Obtain program details by visiting the School of Architecture Web site or by calling (800) 281-8616.

Exhibits of Student Work
From time to time students are given the opportunity to show work in class and in exhibitions. Students provide such work voluntarily and at their own risk. Work that is lost, damaged or stolen is not the responsibility of the school.

Field Trips
Field trips are organized each year in support of various aspects of the academic program. During the past several years, students have made trips to La Jolla to see the Salk Institute and to Catalina Island in connection with a studio project. In addition, students regularly visit sites of significance in the Los Angeles area.

Lectures and Exhibitions
The school provides significant service to the community and profession through public programs and by the participation of faculty members in community and professional activities.

With the support and cooperation of the Architectural Guild, the school generates a vigorous program of lectures, exhibitions and tours.

Some of the world's most distinguished architects have lectured at USC. These include Frank Gehry, Mario Botta, Thom Mayne, Fumihiko Maki, Jean Nouvel, Will Bruder, Enrique Norten, Kazuyo Sejima, Rem Koolhaas, Shigeru Ban and Hans Hollein.

The school also provides the Helen Lindhurst Architecture Gallery for major architectural exhibitions. Recent shows have included important international architects such as Christoph Kapeller, Renzo Piano, Santiago Calatrava, Herman Hertzberger, and Alvaro Siza, as well as USC faculty, students and alumni.

Graduate Programs

The school offers interrelated graduate programs in architecture, landscape architecture, building science and historic preservation as well as two dual degree programs with the School of Policy, Planning, and Development. These programs are designed for students who already hold either pre-professional or professional degrees in the appropriate professional fields.

Admission to Graduate Programs
Credentials for admission must include a complete record of all previous college or university work. The applicant must request the registrar of each college or university attended to forward two official transcripts of record directly to the Office of Admission.

Priority for admission and financial aid is given to applications that are complete by February 1.

Following are the basic requirements for admission to the graduate programs: (1) the appropriate pre-professional or first professional degree from an accredited college or university; (2) satisfactory scores on the verbal, analytical and quantitative portions of the aptitude test of the Graduate Record Examinations; (3) intellectual promise and clear study intentions that indicate an ability to do acceptable graduate work; (4) a portfolio of design work*; (5) strong personal qualifications.

All students must speak and write English. Foreign students must demonstrate such ability by taking the TOEFL test before leaving their home countries, and by further tests upon arrival on campus. Applicants for teaching assistantships will be interviewed by telephone or in person, where possible, prior to a final decision.

International students may be required to enroll in American Language Institute (ALI) English courses, based on scores on the English Placement Tests. The cost of these additional courses is the responsibility of the student. In addition, international students should be aware that they may have to defer enrollment in some major courses because of the ALI courses, extending the number of

semesters required to complete the program and increasing the overall tuition expense. International students are urged to read with care all information sent to them about English requirements and to take as many English language courses as possible prior to coming to the United States.

*Master of Building Science accepts computer programs, papers and other work as portfolio work.

Correspondence with the dean or individual faculty members does not constitute admission to the Graduate School or to the School of Architecture. Only a letter from the Director of Admissions grants official admission.

Graduate Program Policies

Graduate students are expected to complete between 12 and 16 units per semester, spring and fall, depending on the program in which they are enrolled.

A minimum grade of C (2.0) is required in a course to receive graduate credit. A grade point average of at least 3.0 on all units attempted at USC toward a graduate degree is required for graduation. Course work taken on a pass/no pass basis cannot be applied toward a graduate degree. If a student does not meet these minimum grades the faculty member should meet with the student to provide timely advisory reviews.

Failure to complete program course work on schedule will result in the loss of financial awards from the School of Architecture and/or may result in suspension from the program upon recommendation from the program director and approval by the Dean of the School of Architecture and the Associate Vice Provost for Graduate Programs. Additional semesters may be taken to complete the thesis or directed design research when appropriate.

All appeals will be reviewed initially by the director(s) of the appropriate graduate program and then by a committee consisting of all of the graduate program directors (with the exception that design courses will be reviewed by the design review committee). Their recommendation(s) will be forwarded to the dean for consideration and action, and then forwarded to the Associate Vice Provost for Graduate Programs. All communications must be in writing.

Certificate in Building Science

Building science at USC recognizes that exemplary architecture requires a creative response to natural forces, based on informed good judgment in the areas of architectural technology. The Certificate in Building Science is intended as a supplementary credential for students enrolled in graduate course work in architecture, landscape architecture, historic preservation, urban planning or related disciplines, and also for practicing design and planning professionals with undergraduate or graduate degrees and related experience.

Course Requirements
Completion of the certificate requires a minimum of 16 units. Students must take three core courses. Electives in building science may be taken to complete the program requirements.

REQUIRED COURSES		UNITS
Choose three of the following six courses:		
ARCH 511	Building Systems, or	
ARCH 611	Advanced Building Systems Integration	4
ARCH 513L	Seminar: Advanced Structures, or	
ARCH 613L	Seminar: Structures Research	4
ARCH 515L	Seminar: Advanced Environmental Systems, or	
ARCH 615L	Seminar: Environmental Systems Research	4
Elective(s) in Building Science		4

SAMPLE ELECTIVES		UNITS
ARCH 507	Theories of Computer Technology	3
ARCH 519	Sustainability in the Environment: Infrastructures, Urban Landscapes, and Buildings	3
ARCH 590	Directed Research, or	1-12
One from the list of required courses that was not yet selected		4

Certificate in Historic Preservation

This program is directed at practicing professionals who wish to obtain an academic credential for their involvement in historic preservation projects and at graduate students who wish to obtain a complementary credential to a degree in architecture, landscape architecture, planning, public art administration, geography, anthropology or other related disciplines.

Course Requirements
Completion of the certificate requires 16 units, including ARCH 450 Fundamentals of Historic Preservation (4), ARCH 553 History of American Architecture and Urbanism (4), and either ARCH 550 Historic Preservation Management, Planning and Development (4) or ARCH 551 Conservation Methods and Materials (4). Students may choose to complete both ARCH 550 and ARCH 551. The remaining 4 units (if needed) must be selected in consultation with the program director.

SAMPLE ELECTIVES		UNITS
ARCH 511L	Building Systems	4

		UNITS
ARCH 532	Elements of the Urban Landscape	2
ARCH 535ab	Materials and Methods for Landscape Architecture	3-3
ARCH 590	Directed Research (must be in historic preservation)	2-4
ARCH 605aL	Graduate Architecture Design	6
ARCH 611	Advanced Building Systems Integration	4

Certificate in Landscape Architectural Studies

Southern California and Los Angeles provide an exceptionally valuable natural laboratory for open space studies. Such an urban orientation requires education in all the basic subjects inherent to the field of landscape architecture: microclimate in medium to high density environments; plant materials suitable to urban conditions; urban utility and transportation systems in relation to natural drainage and pathways; social and community organization, wildlife and plant communities; as well as inquiries about policy, design and the development process.

Course Requirements
Completion of the certificate program requires a minimum of 16 units. Students must take four core courses and select 5 units of electives from the approved list approved by the director of the graduate landscape architecture program.

CORE COURSES		UNITS
ARCH 531	The Natural Landscape	3
ARCH 533	Urban Landscape Case Studies	2
ARCH 535ab	Materials and Methods for Landscape Architecture	3-3
Other electives, as approved by director		5

SAMPLE ELECTIVES		UNITS
ARCH 532	Elements of the Urban Landscape	2
ARCH 536	Landscape Planning Process	4
ARCH 542ab	Landscape Architecture Design	6-6
ARCH 561	Architecture in the Urban Landscape: Projects and Places	2
ARCH 563	Architecture in the Urban Landscape: Comparative Theories	2

Certificate in Urbanism and the Built Environment

The focus of this program is on the architecture and urban environment in cities throughout the world where conditions of increasing density require design initiatives that support amenity, sustainability and cultural meaning. The certificate is open to graduate students not pursuing a Master of Architecture degree.

Course Requirements

Completion of the certificate program requires a minimum of 16 units. Students must take five core courses and select 4 units of electives from the list approved by the director of the graduate architecture program.

CORE COURSES		UNITS
ARCH 532	Elements of the Urban Landscape	2
ARCH 533	Urban Landscape Case Studies	2
ARCH 553	History of American Architecture and Urbanism	4
ARCH 561	Architecture in the Urban Landscape: Projects and Places	2
ARCH 563	Architecture in the Urban Landscape: Comparative Theories	2
Electives as specified by the director		4

SAMPLE ELECTIVES		UNITS
ARCH 515	Seminar: Advanced Environmental Systems	4
ARCH 536	The Landscape Planning Process	4
ARCH 550	Historic Preservation Management, Planning and Development	4
ARCH 553	History of American Architecture and Urbanism	4
ARCH 611	Advanced Building Systems Integration	4

Sustainable Cities Graduate Certificate

This multidisciplinary certificate program is open to USC students pursuing graduate degrees in disciplines including anthropology, architecture, biology, chemistry, communication, earth sciences, economics, education, engineering, geography, international relations, political science, public policy, sociology, urban planning and others. See USC College, Sustainable Cities Program, page 454, for course requirements.

Master of Architecture

Programs

Two Master of Architecture programs are offered: the "+2" track in American Architecture and Urbanism for students with pre-professional architecture degrees, and a post-professional program for students who already hold a professional Bachelor of Architecture or its equivalent.

Master of Architecture in American Architecture and Urbanism Track: The +2 Program

Admitted students must have a four-year architectural studies degree from a U.S. school with an accredited professional architecture program or from an international programs that is deemed equivalent. All students must matriculate in the fall semester and be in residence for a minimum of two years (four semesters).

Degree Requirements

Students must meet established standards for graduate study at USC, and complete a total of 64 credit units including prerequisite Basic Studies and 48 units of graduate level courses including Advanced Studies and approved electives.

(1) Basic Studies (the following may be met by an equivalent course taken in an undergraduate program or as a Basic Studies requirement at USC): ARCH 211 Materials and Methods of Building Construction, ARCH 213ab Building Structures and Seismic Design, ARCH 214ab History of Architecture, ARCH 215 Design for the Thermal and Atmospheric Environment, ARCH 313 Design of Building Structures, ARCH 314 History of Architecture: Contemporary Issues, ARCH 315 Design for the Luminous and Sonic Environment, ARCH 402abL Architectural Design IV, ARCH 411 Architectural Technology, ARCH 525 Professional Practice: Pre-Design, Project and Office Administration, and ARCH 526 Professional Practice: Legal and Economic Context Project Documentation.

(2) Advanced Studies courses include: ARCH 505abL Graduate Architecture Design, ARCH 532 Elements of the Urban Landscape, ARCH 533 Urban Landscape Case Studies, ARCH 561 Architecture in the Urban Landscape: Projects and Places, ARCH 563 Architecture in the Urban Landscape: Comparative Theories, and ARCH 605abL Graduate Architecture Design.

(3) Electives: courses may be taken at the 400, 500 or 600 level.

Thesis or Directed Design Research Option

M.Arch. +2 students may elect to complete an independent thesis or a directed design research project (DDR). An independent thesis or DDR option will allow students to substitute ARCH 693abL or ARCH 695abL for 12 credit units of electives. This option requires residency of a minimum of five instead of four semesters.

Sample Curriculum

FIRST YEAR, FIRST SEMESTER		UNITS
ARCH 505aL	Graduate Architecture Design	6
ARCH 532	Elements of the Urban Landscape	2
ARCH 561	Architecture in the Urban Landscape: Projects and Places	2
Basic Studies or Electives		6
		16

FIRST YEAR, SECOND SEMESTER		UNITS
ARCH 505bL	Graduate Architecture Design	6
ARCH 533	Urban Landscape Case Studies	2
ARCH 563	Architecture in the Urban Landscape: Comparative Theories	2
Basic Studies or Electives		6
		16

SECOND YEAR, FIRST SEMESTER		UNITS
ARCH 605aL	Graduate Architecture Design	6
Basic Studies or Electives		10
		16

SECOND YEAR, SECOND SEMESTER   **UNITS**

ARCH 605bL	Graduate Architecture Design	6
Basic Studies or Electives*		10
		16

OPTIONAL THIRD YEAR, FIRST SEMESTER   **UNITS**

ARCH 693bL**	M.Arch. Thesis, Option I, or	
ARCH 695bL**	M.Arch Thesis, Option II	8

*Students electing the independent thesis/DDR option should take ARCH 693a or ARCH 695a at this time.

**For students who have elected the independent study option.

Master of Architecture: Post-Professional
Candidates for admission must have a five-year Bachelor of Architecture degree or its equivalent. Completion of the degree requires 48 units, including 20 units of required courses, 12 units of thesis or directed design research, and 16 units of approved electives.

The required courses are ARCH 532 Elements of the Urban Landscape; ARCH 533 Urban Landscape Case Studies; ARCH 561 Architecture in the Urban Landscape: Projects and Places; ARCH 563 Architecture in the Urban Landscape: Comparative Theories; and ARCH 605abL Graduate Architecture Design.

Thesis or Directed Research Option
In addition to the opportunity to initiate an independent thesis, students are provided the option to undertake independent design research related to important urban projects already in progress within the school. Whichever option is taken, students are supported in their work by a three-member faculty advisory team including a principal critic.

48-Unit Sample Curriculum

FIRST YEAR, FIRST SEMESTER   **UNITS**

ARCH 532	Elements of the Urban Landscape	2
ARCH 561	Architecture in the Urban Landscape: Projects and Places	2
ARCH 605aL	Graduate Architecture Design	6
Elective		6
		16

FIRST YEAR, SECOND SEMESTER   **UNITS**

ARCH 533	Urban Landscape Case Studies	2
ARCH 563	Architecture in the Urban Landscape: Comparative Theories	2
ARCH 605bL	Graduate Architecture Design	6
ARCH 693aL	M.Arch. Thesis, Option I, or	
ARCH 695aL	M.Arch. Thesis, Option II	4
Elective		2
		16

SECOND YEAR, FIRST SEMESTER   **UNITS**

ARCH 693bL	M.Arch. Thesis, Option I, or	
ARCH 695bL	M.Arch. Thesis, Option II	8
Electives		8
		16

Advanced Standing
Students may apply for advanced standing based on their general qualifications and any unusual strengths or experience. Applicants who have completed a five-year Bachelor of Architecture degree and at least five years of teaching or practice (or a combination of) may be qualified for advanced standing. Each student will be considered individually. Qualified students will be admitted to a two-semester program at the time of review for admission. Students with advanced standing must complete 32 units.

32-Unit Advanced Standing Sample Curriculum

FIRST YEAR, FIRST SEMESTER   **UNITS**

ARCH 532	Elements of the Urban Landscape	2
ARCH 533	Urban Landscape Case Studies	2
ARCH 605aL	Graduate Architecture Design	6
ARCH 693aL	M.Arch. Thesis, Option I, or	
ARCH 695aL	M.Arch. Thesis, Option II	4
Elective		2
		16

FIRST YEAR, SECOND SEMESTER   **UNITS**

ARCH 561	Architecture in the Urban Landscape: Projects and Places	2
ARCH 563	Architecture in the Urban Landscape: Comparative Theories	2
ARCH 693bL	M.Arch. Thesis, Option I, or	
ARCH 695bL	M.Arch. Thesis, Option II	8
Elective		4
		16

Master of Landscape Architecture

Degree Requirements
Admission to the Master of Landscape Architecture program requires a bachelor's degree in landscape architecture or the equivalent, such as a bachelor of environmental design with a major in landscape architecture. Applicants are encouraged to have completed 6 units in the history of landscape architecture (ARCH 465, ARCH 466 or equivalent) and 6 units in materials and methods for landscape architecture (ARCH 363, ARCH 463 or equivalent) prior to beginning graduate study.

Thesis or Directed Research Option
In addition to the opportunity to initiate an independent thesis, students are provided the option to undertake independent design research related to important urban projects already in progress within the school. Whichever option is taken, students are supported in their work by a three-member faculty advisory team including a principal critic.

Course Requirements
Completion of the degree program requires 48 units, including 20 units of specified courses, 16 units of approved electives and 12 units of thesis option I or option II.

Degree Requirements
48-Unit Program
Required courses include: ARCH 532 (2), ARCH 533 (2), ARCH 542aL (6), ARCH 561 (2), ARCH 563 (2). A total of 22 elective units are required. Students must take at least two elective courses from the following selection: ARCH 407 (4), ARCH 418 (3), ARCH 507 (3), ARCH 599 (4). In addition, two semesters of thesis option or directed research are required, ARCH 697abzL (4-8-0) or ARCH 698abzL (4-8-0).

48-Unit Sample Curriculum

FIRST YEAR, FIRST SEMESTER		UNITS
ARCH 532	Elements of the Urban Landscape	2
ARCH 561	Architecture in the Urban Landscape: Projects and Places	2
ARCH 542aL	Landscape Architecture Design	6
Electives		6
		16

FIRST YEAR, SECOND SEMESTER		UNITS
ARCH 533	Urban Landscape Case Studies	2
ARCH 563	Architecture in the Urban Landscape: Comparative Theories	2
ARCH 697aL	M.L.Arch. Thesis, Option II, or	
ARCH 698aL	M.L.Arch. Thesis, Option I	4
Electives		8
		16

SECOND YEAR, FIRST SEMESTER		UNITS
ARCH 697bL	M.L.Arch. Thesis, Option II, or	
ARCH 698aL	M.L.Arch. Thesis, Option I	8
Electives		8
		16

Advanced Standing

Applicants with exceptional qualifications including a professional degree in landscape architecture or architecture and professional experience may be admitted with advanced standing. Students must request such consideration when applying for admission. Students with advanced standing must complete 32 units.

32-Unit Advanced Standing Sample Curriculum

FIRST YEAR, FIRST SEMESTER		UNITS
ARCH 532	Elements of the Urban Landscape	2
ARCH 533	Urban Landscape Case Studies	2
ARCH 697aL	M.L.Arch. Thesis, Option II, or	
ARCH 698aL	M.L.Arch. Thesis, Option I	4
Electives		8
		16

FIRST YEAR, SECOND SEMESTER		UNITS
ARCH 561	Architecture in the Urban Landscape: Projects and Places	2
ARCH 563	Architecture in the Urban Landscape: Comparative Theories	2
ARCH 697bL	M.L.Arch. Thesis, Option II, or	
ARCH 698bL	M.L.Arch. Thesis, Option I	8
Electives		4
		16

Master of Historic Preservation

Completion of this degree requires 48 units and includes 21 units of specified courses, 8 units of thesis preparation and thesis, and 19 units of elective courses as approved by the program director.

REQUIRED COURSES		UNITS
ARCH 404	Topics in Modern Architecture in Southern California	3
ARCH 450	Fundamentals of Historic Preservation	4
ARCH 550	Historic Preservation Management, Planning and Development	4
ARCH 551	Conservation Methods and Materials	4
ARCH 552	Introduction to Historic Site Documentation	2
ARCH 553	History of American Architecture and Urbanism	4
ARCH 691abz	Historic Preservation Thesis Preparation and Thesis	2-6-0

48-Unit Sample Curriculum

FIRST YEAR, FIRST SEMESTER		UNITS
ARCH 450	Fundamentals of Historic Preservation	4
ARCH 553	History of American Architecture and Urbanism	4
Electives		4
		12

FIRST YEAR, SECOND SEMESTER		UNITS
ARCH 404	Topics in Modern Architecture in Southern California	3
ARCH 551	Conservation Methods and Materials	4
ARCH 691a	Historic Preservation Thesis Preparation and Thesis	2
Electives		3
		12

SECOND YEAR, FIRST SEMESTER		UNITS
ARCH 550	Historic Preservation Management, Planning and Development	4
ARCH 552	Introduction to Historic Site Documentation	2
Electives		6
		12

SECOND YEAR, SECOND SEMESTER		UNITS
ARCH 691b	Historic Preservation Thesis Preparation and Thesis	6
Basic studies or electives		6
		12

Requirements for Advanced Standing

Students must have one of the following: an accredited graduate certificate in historic preservation; professional degree or professional registration in architecture or engineering; graduate degree in a related field, such as architectural history, planning or history; and at least five years of teaching or practice (may be combined). Each student will be considered individually. Qualified students will be admitted to a three-semester program at the time of review of admission. Students with advanced standing must complete 36 units.

REQUIRED COURSES		UNITS
ARCH 404	Topics in Modern Architecture in Southern California	3
ARCH 450	Fundamentals of Historic Preservation	4
ARCH 550	Historic Preservation Management, Planning and Development	4

ARCH 551	Conservation Methods and Materials	4
ARCH 552	Introduction to Historic Site Documentation	2
ARCH 553	History of American Architecture and Urbanism	4
ARCH 691abz	Historic Preservation Thesis Preparation and Thesis	2-6-0

36-Unit Sample Curriculum

FIRST YEAR, FIRST SEMESTER		UNITS
ARCH 450	Fundamentals of Historic Preservation	4
ARCH 553	History of American Architecture and Urbanism	4
Electives		4
		12

FIRST YEAR, SECOND SEMESTER		UNITS
ARCH 404	Topics in Modern Architecture in Southern California	3
ARCH 551	Conservation Methods and Materials	4
ARCH 552	Introduction to Historic Site Documentation	2
ARCH 691a	Historic Preservation Thesis Preparation and Thesis	2
Elective		1
		12

SECOND YEAR, FIRST SEMESTER		UNITS
ARCH 550	Historic Preservation Management, Planning and Development	4
ARCH 691b	Historic Preservation Thesis Preparation and Thesis	6
Electives		2
		12

Master of Building Science

Degree Requirements

Completion of this degree requires 48 units and includes 16 units of specified courses to include three core seminars and one research seminar; 17 units of elective courses; and 15 units of thesis and thesis preparation.

The core seminars are:

ARCH 511L	Building Systems	4
ARCH 513L	Seminar: Advanced Structures	4
ARCH 515L	Seminar: Advanced Environmental Systems	4

Research seminars are:

| ARCH 613L | Seminar: Structures Research, or | 4 |
| ARCH 615L | Seminar: Environmental Systems Research | 4 |

48-Unit Sample Curriculum

FIRST YEAR, FIRST SEMESTER	UNITS
Core seminar(s) and/or research seminar(s)	12
	12

FIRST YEAR, SECOND SEMESTER		UNITS
ARCH 596	Building Science Thesis Preparation	1
Core seminar and/or research seminar		4
Electives		7
		12

SECOND YEAR, FIRST SEMESTER		UNITS
ARCH 692aL	Building Science Thesis	6
Electives		6
		12

SECOND YEAR, SECOND SEMESTER		UNITS
ARCH 692bL	Building Science Thesis	8
Elective		4
		12

Advanced Standing for Students with a Five-Year Professional Degree in Architecture

Applicants who have completed a five-year Bachelor of Architecture degree and at least five years of teaching or practice (may be combined), may be qualified for advanced standing. Each student will be considered individually. In such cases, the degree requirements are 36 units, including 8 units of specified courses, 15 units of thesis and thesis preparation and 13 units of electives. Students with advanced standing will typically be able to complete the degree program in three regular semesters. Admission with advanced standing is determined at the time of review for admission to the program.

36-Unit Advanced Standing Sample Curriculum

FIRST YEAR, FIRST SEMESTER		UNITS
ARCH 511L	Building Systems	4
ARCH 513L	Seminar: Advanced Structures	4
ARCH 515L	Seminar: Advanced Environmental Systems	4
ARCH 596	Building Science Thesis Preparation	1
		13

FIRST YEAR, SECOND SEMESTER		UNITS
ARCH 613L	Seminar: Structures Research, or	
ARCH 615L	Seminar: Environmental Systems Research	4
ARCH 692aL	Building Science Thesis	6
Electives		2
		12

SECOND YEAR, FIRST SEMESTER		UNITS
ARCH 692bL	Building Science Thesis	8
Electives		3
		11

Dual Degrees

Master of Architecture/Master of Planning

The Master of Planning/Master of Architecture dual degree program facilitates highly related cross-disciplinary studies in architecture and in planning at the master's level. This program offers students interested in developing a career in urban design an opportunity to make more substantial commitments in both disciplines and to achieve a more coherent and extensive knowledge in the design of built environments and public policy. This dual degree program normally requires five semesters in residence.

Qualified students who are admitted to the graduate programs in both the School of Architecture and the School of Policy, Planning, and Development may complete both degrees in a highly integrated five-semester program. Such students must already possess a degree in architecture.

Requirements
Requirements for completion of the dual degree program are 72 units, including 36 units in architecture and 36 units in planning, as follows:

ARCHITECTURE		UNITS
ARCH 532	Elements of the Urban Landscape	2
ARCH 533	Urban Landscape Case Studies	2
ARCH 561	Architecture in the Urban Landscape: Projects and Places	2
ARCH 563	Architecture in the Urban Landscape: Comparative Theories	2
ARCH 605abL	Graduate Architecture Design	6-6
ARCH 693abL	M.Arch. Thesis, Option I, or	
ARCH 695abzL	M.Arch. Thesis, Option II	4-8
Elective*		4

*A 4 unit elective course taken within the School of Architecture.

POLICY, PLANNING, AND DEVELOPMENT		UNITS
PPD 500	Cross-Sectoral Governance	4
PPD 524	Planning Theory	2
PPD 525	Statistics and Arguing from Data	2
PPD 526	Comparative International Development	2
PPD 527	The Social Context of Planning	2
PPD 528	The Urban Economy	2
PPD 529	Legal Environment of Planning	2

Note: 2-unit courses may be offered in seven-and-a-half week blocks.

Specialization methodology: 4 units selected from the list shown in the Master of Planning program.

Laboratory/Workshops: PPD 531L (4, 4) and/or PPD 532L (4, 4) to total 8 units.

Elective: A total of 8 units of electives taken within the School of Policy, Planning, and Development.

Dual degree students, like all other M.Pl. students, must take a comprehensive examination and fulfill the internship requirement.

Master of Landscape Architecture/Master of Planning

Qualified students who are admitted to the graduate program in both the School of Architecture and the School of Policy, Planning, and Development may complete both degrees in a highly integrated five-semester program.

Completion of the dual degree requires 66 units, including 20 units of specified courses in landscape architecture, 24 units of courses in urban planning, 10 units of elective courses and 12 units of thesis option I or directed design research option II.

The specified courses are those required for the Master of Landscape Architecture degree.

LANDSCAPE ARCHITECTURE		UNITS
ARCH 532	Elements of the Urban Landscape	2
ARCH 533	Urban Landscape Case Studies	2
ARCH 561	Architecture in the Urban Landscape: Projects and Places	2
ARCH 563	Architecture in the Urban Landscape: Comparative Theories	2
ARCH 697abzL	M.L.Arch. Thesis, Option II, or	
ARCH 698abzL	M.L.Arch. Thesis, Option I	4-8-0
Electives		10

STUDIOS		UNITS
ARCH 542abL	Landscape Architecture Design	6-6

POLICY, PLANNING, AND DEVELOPMENT		UNITS
PPD 500	Cross-Sectoral Governance	4
PPD 524	Planning Theory	2
PPD 525	Statistics and Arguing from Data	2
PPD 526	Comparative International Development	2
PPD 527	The Social Context of Planning	2
PPD 528	The Urban Economy	2
RED 573	Design History and Criticism	2
Electives		8

Note: 2-unit courses may be offered in seven-and-a-half week blocks.

Electives: 8 units of elective courses taken within the School of Policy, Planning and Development.

Dual degree students, like all other M.Pl. students, must take a comprehensive examination and fulfill the internship requirement.

Courses of Instruction

ARCHITECTURE (ARCH)

All courses must be taken in *sequential* order, *a* before *b*.

The terms indicated are *expected* but are not *guaranteed*. For courses offered during any given term, consult the *Schedule of Classes*.

102abL Architectural Design I (4-4, FaSpSm) Introduction to principles and processes; sequence of exercises emphasizing development of basic skills, ideas, and techniques used in the design of simplified architectural projects.

105L Fundamentals of Design Communication (2, FaSp) Visual communication techniques applicable to the design of the built environment; drawing, photography, modeling.

106x Workshop in Architecture (2, FaSp) Introduction to the ways architecture is created and understood, for minors and non-majors. Hands-on discussion and laboratory session with some drawing and model building. Not available for credit to architecture majors.

114 Architecture: Culture and Community (2, FaSp) Introduction to the ways architecture represents aspirations of culture, satisfies practical and spiritual needs, shapes the social and urban environment, and helps preserve the planet.

202abL Architectural Design II (6-6, FaSpSm) Continuing development of principles and processes; sequence of projects selected to broaden awareness of design issues at various scales in the urban context. *Prerequisite:* ARCH 102*bL.*

205abL Building Science I (4-4, FaSp) The process and communication of building design: physical building shell, systems for structure, enclosure, and space ordering. *Prerequisite:* CE 107.

206 Shelter (4, Fa) Introduction to issues, processes, and roles of the individual in relation to present and future shelter needs and aspirations.

207 Computer Applications in Architecture (2, FaSpSm) Introduction for the non-programmer to the uses of the computer in architecture, including the application of existing programs and their implications for design. Overview and use of software types. Lecture and laboratory. (Duplicates credit in former ARCH 207*a*).

209 Modern Housing (3, Sp) Review of 20th century, international housing by country and building type; the evolution of building forms; American housing problems.

211 Materials and Methods of Building Construction (3, Sp) Basic considerations and design implications of the problem of determination of the materials and construction details and processes for buildings.

213ab Building Structures and Seismic Design (3-3, FaSp) *a:* Investigation and design of elements and systems for building structures; applied mechanics, strength of materials, structural investigation as a design tool. *b:* Investigation and design of structure systems: their resistance to seismic and wind forces and integration with architectural design for synergy of form and structure. *Recommended preparation:* PHYS 125 and MATH 108.

214ab History of Architecture (4-4, FaSp) History of building and cities, social, political, technical, formal, aesthetic dimensions in western and non-western traditions: *a:* antiquity through the Middle Ages; *b:* Renaissance to present.

215 Design for the Thermal and Atmospheric Environment (3, Fa) Ideas, problems, and computations related to the design of buildings in response to the thermal and atmospheric environment; passive solar systems, mechanical control systems.

220x The Architect's Sketchbook (2, FaSp) The architect's sketchbook as a portable laboratory for perceiving and documenting space introduces the study of the built environment. On-site sessions develop drawing, observation, and visualization skills. Not for professional elective credit for architecture majors.

260L Landscape Architecture Design I (6, Sp) Development of principles and processes for the design of gardens and parks and the definition of open space in the built environment. *Prerequisite:* ARCH 202*a.*

270 Introduction to Architectural Studies (2, FaSp) Gateway course requirement for the B.S. in architectural studies program introduces related fields using mentoring, readings, case studies and field trips.

302abL Architectural Design III (6-6, FaSp) Special integrative year including design issues relating to housing. *Prerequisite:* ARCH 202*bL.*

304x Intensive Survey: Prehistory to the Present (4, FaSp) An intensive historical overview of architecture from prehistory to the present, emphasizing interrelationships of various global cultures and how social considerations were translated into form. Not available for credit to architecture majors.

305abL Building Science II (4-4, FaSp) The design of a building as a complex of interacting systems; relations of subsystems; influences of production and marketing on design. *Prerequisite:* ARCH 205*abL.*

307 Digital Tools for Architecture (2, FaSpSm) Introduction for the non-programmer to the uses of the computer in architecture, including the application of existing programs and their implications for design. Management of computer systems. Lecture and laboratory. (Duplicates credit in former ARCH 207*b*). *Recommended preparation:* ARCH 207 or equivalent computer experience.

312 Urban Form and Architecture in Italy (2, Fa) Historical overview and theoretical discussion of selected cities, urban spaces and buildings from ancient Rome to the present in Italy. Prerequisite for Milan/Como program.

313 Design of Building Structures (3, Fa) Problems and processes of design of building structures; structural investigation for design; codes and standards; design of elements and systems of wood, steel, masonry, and concrete for gravity and lateral loads. *Prerequisite:* ARCH 213*a.*

314 History of Architecture: Contemporary Issues (3, FaSm) Examination of the buildings, issues and images, the polemics and personalities that are animating current architectural discourse and practice. *Prerequisite:* ARCH 214*b.*

315 Design for the Luminous and Sonic Environment (3, Sp) Ideas, problems, and computations related to the design of buildings in response to the luminous and sonic environment.

316 Place and Culture (3, FaSpSm) (Study abroad programs only) Study of the relationships between places and culture through readings, lectures, discussion and weekly field trips.

326 The Modern Movement in Architecture (4, Sp) Major theories of modern architecture are presented by studying the work of masters such as: Gropius, Mies van der Rohe, Corbusier, and Kahn.

341 History of Italian Architecture 1400-1990 (4, Sp) Introduction to the important buildings, architects and architectural movements in Italy from the Renaissance to the present.

360abL Landscape Architecture Design II (6-6, FaSp) *a:* Principles, policies and practice of planned community design focusing on site planning. *Prerequisite:* ARCH 260. *b:* Principles and design of conservation and enhancement of cultural and natural resources. Studio investigates historic landscape landmarks, conservation programs and urban landscape renewal. *Prerequisite:* ARCH 360*a.*

361L Ecological Factors in Design (3, Fa) Lectures, laboratory exercises and field trips introduce basic knowledge of incorporating ecological factors in urban design and interaction of landscape science with the human environment.

362 Landscape Architecture Construction (3, Sp) An investigation of construction processes, horizontal and vertical control of space, site detailing control of space, site detailing and materials and construction drawings. *Prerequisite:* ARCH 211 and ARCH 213*a.*

363 Plant Material Identification: Horticulture (4, Fa) Introduction to 300 species of plantings. Learn visual characteristics, nomenclature, cultural considerations, and design applications through visits to existing gardens.

364 Materials and Methods of Landscape Architecture (3, Fa) Aesthetic and ecological concepts for planting design. Methods of selecting appropriate plants for site development and an understanding of irrigation techniques for a given site. *Prerequisite:* ARCH 363.

375 The Urban Neighborhood (4, Fa) Enroll in URBN 375.

390 Special Problems (1-4, FaSp) Supervised, individual studies. No more than one registration permitted. Enrollment by petition only.

402abcL Architectural Design IV (6-6-6, FaSpSm) Selected areas of specialization; three projects chosen with advisement from a variety of studio offerings that concentrate on different areas of vital concern. *Prerequisite:* ARCH 302*bL.*

404 Topics in Modern Architecture in Southern California (3, FaSp) Investigation of modern architecture in southern California within its cultural and historic contexts.

405abL Building Science III (4-4, FaSp) Design of building systems as an experimental process. *Prerequisite:* ARCH 305*abL.*

407 Advanced Computer Applications (4, FaSp) Investigation of computer graphic applications, emphasizing the role of computers in helping designers create and communicate using color (rendering), form (modeling), and time (animation) and the implications of future technological advancements. *Prerequisite:* ARCH 207 and ARCH 307, CADD studio or departmental approval.

410 Computer Transformations (2, FaSp) To explore the potential of computer-integrated design software; to develop techniques for critical analysis of architectural precedents; to expand the ability to visualize options; to expand perception; and to learn the basics of computer-integrated design. *Prerequisite:* ARCH 202*b.*

411 Architectural Technology (3, Sp) Architectural design considered as a technological problem; influence of technology on design; buildings as integrated sets of subsystems. *Prerequisite:* ARCH 313.

415 Asian Architecture and Urbanism (2, Sp) Overview of Asian architecture emphasizing that the built environment is as diverse as the histories and cultures that make up the region.

416 Architecture and Urbanism in France (2, Sp) Provides an understanding of the cities and buildings of France. Includes case studies as specific places, historical background for development of personal design theory. Open to architecture students (majors and minors) at third year and above.

417 Computer Programming in Architecture (3, Fa) Principles underlying computer programming, emphasizing algorithms, procedures, and program structures applicable to architecture.

418 Designing with Natural Forces (3, Fa) Investigation of natural force effects and their relationships to architecture; laboratory work includes drawing, photography, model building and tests on models.

419 Architectural Sustainability Tools and Methods (3, FaSp) Lectures, comparative studies and exercises on international architectural sustainability rating and certification systems.

420 Visual Communication and Graphic Expression (3, Fa) An exploratory study of fundamental and innovative visual communication principles and graphic expression techniques to facilitate the design enquiry process for architects. *Prerequisite:* ARCH 302*L.*

422 Architectural Photography (2, FaSp) Perceiving and documenting the built environment through the perspective and frame of the camera. Abilities with 35mm and large format cameras, lighting, and black and white lab techniques will be developed. *Recommended preparation:* knowledge of 35mm camera.

423 Light, Color and the Character of Material (2, FaSp) Color theory, constructed drawings, constructed shadows, descriptive geometry, constructed perspective drawing, and layered wash techniques lead to experimentation with methods representing materiality and construction in design projects. *Prerequisite:* ARCH 105*L.*

424L Field Studies in Architecture (2, FaSpSm) (Study abroad programs only.) Field studies using direct observation, site recordings/documentation, analysis and evaluation supplemented by discussions and readings in architecture. Department approval. *Recommended preparation:* core curriculum.

425L Field Studies in Urbanism (2, FaSpSm) (Study abroad programs only.) Field studies using direct observation, site recordings/documentation, analysis and evaluation supplemented by discussions and readings in urbanism. Departmental approval. *Recommended preparation:* core curriculum.

426L Field Studies in Tectonics (2, FaSpSm) (Study abroad programs only.) Field studies using direct observation, site recordings/documentation, analysis and evaluation supplemented by discussions and readings in tectonics. Departmental approval. *Recommended preparation:* core curriculum.

430 Design Teaching Methods (2, FaSp) The teaching of architectural design is introduced through readings, seminar discussions, and the observation of teaching in action. In addition to a one hour per week seminar, each student will participate in a design practicum. *Prerequisite:* ARCH 302*L.*

432 People, Places and Culture: Architecture of the Public Realm (4, Sp) Critical observation of the architecture of public buildings and places and the importance of design in promoting a better contemporary public life.

434 City Cine: Visuality, Media and Urban Experience (3, Fa) This seminar explores the relationship between urban experience and visual media (from the photographic, to the filmic, to the digital) from circa 1880 to the present.

440m Literature and the Urban Experience (4, Fa) Post-industrial revolution urban environments and dynamic relationships in cities such as Manchester, Paris, St. Petersburg, New York, and Los Angeles, as revealed in novels, architecture, and urban forms.

441 A History of Architectural Theory: 1400-1914 (2, FaSp) A seminar on architectural theory from Alberti to Scott, reviewing primary texts and subsequent criticisms.

442m Women's Spaces in History: "Hussies," "Harems" and "Housewives" (4, Sp) Methods for studying patterns of spatial differentiation of women throughout history from home to city embodied in gender specific language and gendered spaces.

444 Great Houses of Los Angeles (4, FaSp) An introduction to the architectural philosophies of seven influential California architects through readings and site visits to significant case studies. (Duplicates credit in former ARCH 322.)

450 Fundamentals of Historic Preservation (4, Fa) Concepts and strategies for preservation of significant elements of the built environment: buildings, sites and communities as revealed by reading, site visits and case studies.

454 Contemporary Asian Architecture (4) Exploration of various "Asian" architectures, comparisons of areas, identifying current trends and impact of Asia on Southern California and Los Angeles.

460L Landscape Planning Studio (6, Fa) Studio examining basic concepts and stimulating ecological landscape project planning. Preparation for landscape project and land management project. *Prerequisite:* ARCH 360*b.*

461L Landscape Architecture Comprehensive Project (6, Sp) Preparation of an individual comprehensive design project under a faculty advisor to demonstrate knowledge of landscape architecture principles and professional skills. *Prerequisite:* ARCH 460L.

463 Plant Material Identification: California Plant Communities (4, FaSp) Expand plant material vocabulary to include native plants of Southern California. Emphasis on bioengineering techniques for site design. *Prerequisite:* ARCH 363.

465 History of Landscape Architecture (4, FaSp) Provides understanding of design of landscape in the Western world. Includes case studies on general and specific projects. Students develop personal theory of landscape design. (Duplicates credit in former ARCH 365.)

466 Nature, Landscape and Gardens in Non-Western Cultures (4, Sp) Critical analysis and appreciation of landscape as cultural interpretation of nature and the representation of landscape as garden and public space in Asian, Islamic, and Pre-Columbian American civilizations. (Duplicates credit in former ARCH 366.)

470 Concentration Capstone Seminar (4, FaSp) Collaborative research project and research paper in an area of concentration. Senior standing.

475 Urban Practicum (4, Sp) Enroll in URBN 475.

481 Furniture Design (2, FaSp) An investigation into 20th century furniture design and its relationships to architecture, art and design.

490x Directed Research (2-8, max 8, FaSpSm) Individual research and readings. Not available for graduate credit.

499 Special Topics (2-4, max 8, FaSpSm) Selected topics in various specialty areas of architecture.

501 Comprehensive Studio Support and Enrichment (2, SpSm) Addresses curricular elements of the Comprehensive Studio concurrent with academic research, documentation and production of a written and illustrated paper on an architectural subject. *Prerequisite:* ARCH 402*cL; concurrent enrollment:* ARCH 502*aL.*

502abL Architectural Design V (6-0, SpSm) The final comprehensive architectural project under the guidance of a faculty advisor to demonstrate architectural knowledge, skills, and professional interests and goals. Graded IP/L. *a: Prerequisite:* ARCH 402*aL; corequisite:* ARCH 501; *b: Prerequisite:* ARCH 502*a.*

505abL Graduate Architecture Design (6-6, FaSp) Emphasis on comprehensive architectural design; attention to theories and skills appropriate for practice in contemporary urban conditions. Open to graduate architecture majors only. *Prerequisite:* a Bachelor of Science degree in Architecture or its equivalent; *recommended preparation:* six semesters of architecture design.

507 Theories of Computer Technology (3, FaSp) Fundamental theories and meanings of computation as a technique in architectural design. Lecture/discussion.

510 Research and Documentation Techniques for Architects (2, Fa) Assistance for fifth year architecture students in preparing for their final academic requirements in ARCH 501/502abL and covers pre-design, research topics and writing skills. Graded CR/NC. *Corequisite:* ARCH 402*cL.*

511L Building Systems (4, Fa) Studies of construction system development within the architectural design context; processes and issues of selection, evaluation, optimization, integration, design control, and innovation.

513L Seminar: Advanced Structures (4, Fa) Issues and problems in the development of structural systems for buildings; design criteria, system choice, design development, optimization, subsystem integration.

515L Seminar: Advanced Environmental Systems (4, Sp) A compressed course in design criteria and calculation methods for mechanical and passive solar systems (loads, plant system, duct, and storage sizing) and lighting and acoustics (CIE and IES methods, dBA and NC systems).

519 Sustainability in the Environment: Infrastructures, Urban Landscapes, and Buildings (3, FaSp) Methodologies and exercises on contextual design and environmentally sound technologies (EST's) applications for the sustainability of urban infrastructures, operative landscapes, and building integration in the urban system.

524 Professional Practicum (1, max 2, FaSpSm) Comparative studies of professional practice between U.S. firms and firms in other countries. Open to international upper-division and graduate architecture students only. Graded CR/NC. *Prerequisite:* ARCH 302*bL.*

525 Professional Practice: Pre-Design, Project and Office Administration (3, Fa) Design methodology, typology programming, site analysis, budget formulation and proforma procedures. Office management, emphasizing professional service and professional ethics as well as project management focusing on the architect's responsibilities during construction. (Duplicates credit in former ARCH 520 and ARCH 522.) *Prerequisite:* ARCH 302*bL.*

526 Professional Practice: Legal and Economic Context, Project Documentation (3, Sp) The laws and regulations that affect the practice of architecture and building economics and the development of comprehensive project documentation, detailing, specifications, drawing formats and organizations. (Duplicates credit in former ARCH 521 and ARCH 523.) *Prerequisite:* ARCH 302*bL.*

531 The Natural Landscape (3, Fa) Lectures, laboratory exercises and field trips introducing basic knowledge of the continually transforming landscape as a base for human settlement.

532 Elements of the Urban Landscape (2, Fa) Study of the basic spatial and infrastructure elements of the city, and how urban places are formed. Typological analysis of buildings, open space, and urban patterns.

533 Urban Landscape Case Studies (2, Sp) Lectures, discussion, and individual research on the physical, formal, and spatial characteristics of historical urban centers.

535ab Materials and Methods for Landscape Architecture (3-3, FaSp) Introduction to materials of landscape construction, including plant species and planting design, site grading and drainage, surface and building materials and assemblies.

536 The Landscape Planning Process (4) Investigation through graphic, verbal, and written methods of the potential of sites for future development. Sites vary in size. Establish criteria based upon ecological principles and alternative development.

542abL Landscape Architecture Design (6-6, FaSp) Projects in complex urban settings; collaboration with students in related fields; emphasis on development of integrative schematic proposals as well as detailed open space design.

550 Historic Preservation Management, Planning and Development (4, FaSp) Preservation practice within an economic, political and cultural context. The regulatory environment, public advocacy and policy, development, heritage tourism, environmental sustainability, cultural diversity and interpretation.

551 Conservation Methods and Materials (4, Sp) Concepts and techniques for building conservation including identification of treatments, recordation and research, material properties and behavior, building forensics, and implementation of preservation projects.

552 Introduction to Historic Site Documentation (2, Sp) Survey of basic guidelines and standards for documentation in historic preservation, including cultural resource surveys, historic structures reports and Historic American Building Survey and Historic American Engineering Record recordation.

553 History of American Architecture and Urbanism (4, Sp) History of American architecture and urbanism from prehistory to World War II examined in relation to European influences and indigenous developments. (Duplicates credit in former ARCH 409.)

561 Architecture in the Urban Landscape: Projects and Places (2, Fa) Study of the basic spatial and infrastructure elements of the city, and how urban places are formed: Focus on incremental development, public-private collaboration, community incentives and controls, project implementation strategies. (Duplicates credit in former ARCH 532*b.*)

563 Architecture in the Urban Landscape: Comparative Theories (2, Sp) A comparative study of design theories of the physical, formal and spatial characteristics of historic city types from ancient to modern. (Duplicates credit in former ARCH 533*b.*)

590 Directed Research (1-12, FaSpSm) Research leading to the master's degree. Maximum units which may be applied to the degree to be determined by the department. Graded CR/NC.

596 Building Science Thesis Preparation (1, Sp) Exploration of topics leading to the development of a thesis prospectus. Topics may be in the areas of building structures, seismic design, environmental control, passive and active energy, or other relevant topics.

599 Special Topics (2-4, max 8, FaSpSm) Selected topics in various specialty areas of architecture.

605abL Graduate Architecture Design (6-6, FaSp) Development of advanced skills and theoretical knowledge about urban architectural issues: *a:* a series of projects emphasizing the interaction between general principles and local sites; *b:* a major urban project in Los Angeles.

611 Advanced Building Systems Integration (4, Fa) Design criteria development, material and construction process methods, occupancy based load profiles, performance/material life-cycle-mandates, durability for advanced building systems including integrity in sustainable urban systems.

613L Seminar: Structures Research (4, Fa) An overview of research topics in building structures; detailed investigation of selected major issues.

615L Seminar: Environmental Systems Research (4, Sp) A detailed examination of current issues in the thermal, acoustical, and radiant environment; recent developments in criteria, systems, controls, design tools and simulations; an understanding of the relationships between environmental factors, economics, and architectural goals.

630 Landscape Architecture Practice (3, Sp) Introduction to the activities, principles, and ethics of professional practice.

690abL Directed Research (a: 2-8; b: 2-8, FaSpSm) Graded CR/NC.

691abz Historic Preservation Thesis Preparation and Thesis (2-6-0, FaSp) Introduction to, and exploration of, topics leading to the development of a thesis prospectus and directed research towards the completion of the master's thesis in historic preservation. Credit on acceptance of thesis. Registration restricted to Master of Historic Preservation students who have satisfactorily completed 12 hours of graduate course work and have permission of the Program Director. Graded IP/CR/NC. *Prerequisite:* ARCH 553, ARCH 450.

692abzL Building Science Thesis (6-8-0, FaSpSm) Research and thesis for the Master of Building Science degree. Credit on completion of thesis. Graded IP/CR/NC. *Prerequisite:* ARCH 596.

693abzL M.Arch. Thesis, Option I (4-8-0, FaSpSm) Directed research option for M.Arch. degree. Credit on acceptance of research project. Graded IP/CR/NC.

695abzL M.Arch. Thesis, Option II (4-8-0, FaSpSm) Design thesis for the Master of Architecture degree. Credit on acceptance of thesis. Graded IP/CR/NC.

696abczL Building Science Thesis (1-6-8-0) Research and thesis for the Master of Building Science degree. Credit on acceptance of thesis. Graded IP/CR/NC.

697abzL M.L.Arch. Thesis, Option II (4-8-0, FaSpSm) Field studies and thesis for the M.L.Arch. degree. Credit on completion of thesis. Graded IP/CR/NC.

698abzL M.L.Arch. Thesis, Option I (4-8-0, FaSpSm) Directed research option for the M.L.Arch. degree. Credit on acceptance of research project. Graded IP/CR/NC.