USC School of Architecture



The design studio serves as the learning laboratory where students develop the skills and knowledge necessary to create exemplary architectural designs.

he 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 twentieth century growth and change. In such an environment the possibilities for teaching and learning are extraordinary.

Relatively small in size, 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 School of Fine Arts and the Fisher Gallery.

USC School of Architecture Watt Hall 204 (213) 740-2723 FAX: (213) 740-8884 arch.usc.edu

Administration

Gerald C. Davison, Ph.D. *Interim Dean*

Charles A. Lagreco, M.F.A. (Arch.) *Associate Dean*

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

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

James Tyler, B.F.A., B.Arch.

Director, Master of Building Science Program

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

Mark Rios, M.L.Arch.

Director, Landscape Architecture Program

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

Faculty

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

Nancy M. and Edward D. Fox Urban Design Critic: Maria Romanach, M.Arch.

Jon Adams Jerde, FAIA, Visiting Design Professorship in Architecture: Alice Kimm, M.Arch. and John Friedman, M.Arch.

A.C. Martin Visiting Professorship in Architectural Design: Randall Stout

Professors: Frank Dimster, M.Arch. (U.D.); Diane Ghirardo, Ph.D.; Robert S. Harris, M.F.A. (Arch.); 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: Kim Coleman, M.Arch.; Charles Lagreco, M.F.A. (Arch.); Graeme M. Morland, Dipl.Arch.; Douglas E. Noble, Ph.D.; Mark Rios, M.Arch., M.L.Arch.

Assistant Professors: Brian D. Andrews, M.Arch.; Kara Bartelt, M.Arch.; Amy Murphy, M.F.A.; Maria Romanach, M.Arch.; Thomas Spiegelhalter, Dipl. Arch. Adjunct Professors: Ed Niles, B.Arch.; Scott Johnson, M.Arch.; Stefanos Polyzoides, M.Arch., M.U.P.

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

Assistant Professors of Practice: Janek Tabencki Dombrowa; David Fletcher, M.L.Arch.; Yo-ichiro Hakomori, Ph.D.; Christoph Kapeller, M.Arch.; Gerald Knowles, M.Arch.; Sara Loe, M.Arch.; Lee Olvera, M.Arch.; Susanna Seierup, M.Arch.; Selwyn Ting, M.Arch.

Part-time Adjunct Professors: Arthur Golding, M.Arch.; T. Jeff Guh, Ph.D.; Paul Reling Tang, M.Arch.; 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.; Christopher Artemus Aykanian, M.Arch.; Aaron Bentley, MSAAD; Mark Bittoni, M.Arch.; Pamela Burton, M.Arch., ASLA; Benjamin Caffey, M.Arch.; Mina Mei-Szu Chow, M.Arch.; Michael Chung, M.Arch.; Richard Corsini, M.Arch.; John R. Dale, S.M.Arch.Sci.; Katherine Diamond, B.Arch.; Steven Ehrlich, B.Arch.; Liz Falletta, M.Arch.; Glenn Fearon, M.Arch.; Miller Fong, B.A.Arch.; Peyton Hall, M.E.D.; Michael Hricak, M.Arch.; Andrea Keller, M.Arch.; Steffen Leisner, M.Arch.; Andrew Liang, M.Arch; Rebecca Lowry, M.Arch.; David C. Martin, M.Arch.; Christy Johnson McAvoy, M.A.; Melanie Moossaian, M.L.Arch.; Deborah Murphy, M.Arch.; Kevin O'Brien, M.Arch.; Zoltan Pali, M.Arch.; Claire Robinson, M.B.A.; Jade Satterthwaite, M.L.Arch.; William Shepphird, M.Arch.; Janice Shimizu, M.Arch.; Niloofar Shokoohy, B.Arch.; Randall Stout, M.Arch.; Joe Sturges, B.F.A.; Doris Sung, M.Arch.; Warren Techentin, M.Arch., M.A.U.D.; Sam Watters; Li Wen, M.Arch.; Eui-Sung Yi, M.Arch.; Nabih Youssef, M.S.

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 or Bachelor of Science in Engineering degree from an accredited school of architecture or engineering. Students with five-year professional degrees in architecture 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.

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 preprofessional degree is not, by itself, recognized as an accredited degree.

The USC School of Architecture Bachelor of Architecture and Master of Architecture "+2" program 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 form and return 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 junior college, community college or other university may be eligible for advanced placement at the second-year level or above if previous work includes a minimum of 32 semester units of acceptable academic credit in a prearchitecture 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 programs to be evaluated for advanced placement in the fall semester. Applicants must submit a portfolio by February 1. 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 information about qualifying for this program, 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 of each student

while in attendance. Appointments for interviews 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 requirement, 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 addition 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 SE	MESTER	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
		10
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	n, or	
WRIT 130*	Analytical Writing	4
		16
		10
SECOND YEAR, FIRST	SEMESTER	UNITS
ARCH 202aL	Architectural Design II	6
ARCH 202aL ARCH 213a	Architectural Design II Building Structures	6
	_	6
	Building Structures	
ARCH 213a	Building Structures and Seismic Design History of Architecture	3
ARCH 213a ARCH 214b	Building Structures and Seismic Design History of Architecture	3 4
ARCH 213a ARCH 214b General Education	Building Structures and Seismic Design History of Architecture	3 4 4 17
ARCH 213a ARCH 214b	Building Structures and Seismic Design History of Architecture	3 4 4
ARCH 213a ARCH 214b General Education SECOND YEAR, SECOND ARCH 202bL	Building Structures and Seismic Design History of Architecture ND SEMESTER Architectural Design II	3 4 4 17
ARCH 213a ARCH 214b General Education SECOND YEAR, SECOND	Building Structures and Seismic Design History of Architecture ND SEMESTER Architectural Design II Materials and Methods	3 4 4 17 UNITS
ARCH 213a ARCH 214b General Education SECOND YEAR, SECOND ARCH 202bL ARCH 211	Building Structures and Seismic Design History of Architecture ND SEMESTER Architectural Design II Materials and Methods of Building Construction	3 4 4 17 UNITS
ARCH 213a ARCH 214b General Education SECOND YEAR, SECOND ARCH 202bL	Building Structures and Seismic Design History of Architecture ND SEMESTER Architectural Design II Materials and Methods of Building Construction Building Structures	3 4 4 17 UNITS
ARCH 213a ARCH 214b General Education SECOND YEAR, SECOND ARCH 202bL ARCH 2111 ARCH 213b	Building Structures and Seismic Design History of Architecture ND SEMESTER Architectural Design II Materials and Methods of Building Construction Building Structures and Seismic Design	3 4 4 4 17 17 UNITS 6 3 3
ARCH 213a ARCH 214b General Education SECOND YEAR, SECOND ARCH 202bL ARCH 211	Building Structures and Seismic Design History of Architecture ND SEMESTER Architectural Design II Materials and Methods of Building Construction Building Structures and Seismic Design	3 4 4 7 17 UNITS 6 3 3

THIRD YEAR, FIRST SE	MESTER	UNIT
ARCH 215	Design for the Thermal	
	and Atmospheric Environment	,
ARCH 302aL	Architectural Design III	3
ARCH 302aL ARCH 313	Design of Building	
General Education	Structures	3
General Education	.1	16
THIRD YEAR, SECOND	SEMESTER	UNIT
ARCH 315	Design for the	
	Luminous and	
	Sonic Environment	3
ARCH 302bL	Architectural Design III	6
ARCH 411	Architectural	,
General Education	Technology	3
General Education	1	
		16
FOURTH YEAR, FIRST		UNIT
ARCH 314	History of Architecture:	
ADCII 402-I	Contemporary Issues	3
ARCH 402aL ARCH 525	Architectural Design IV Professional Practice:	(
ARGII 323	Pre-Design, Project and	
	Office Administration	3
Electives		
		16
FOURTH YEAR, SECO	ND SEMESTER	UNIT
ARCH 402bL	Architectural Design IV	6
ARCH 526	Professional Practice:	
	Legal and Economic	
	Context, Project	,
WRIT 340	Documentation Advanced Writing	3
Electives	Advanced writing	3
Electives		16
FIFTH YEAR, FIRST SE	MESTER	UNIT
ARCH 402cL	Architectural Design IV	(
Electives	0	Ç
		15
FIFTH YEAR, SECOND	SEMESTER	UNIT
ARCH 501	Comprehensive Studio	
	Support and Enrichmen	t 2
ARCH 502aL	Architectural Design V	(
Electives		8
		16
	nroll in WRIT 140 in the fall	
	e required to take MATH 108	
These students must spring.	take WRIT 130 the following	g

Core Requirements

In order to take advantage of elective opportunities 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 professional courses, humanities, social sciences and communication and natural sciences. Natural sciences include astronomy, biological 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 new program requires six courses in different categories, plus writing and diversity requirements, which together comprise the USC Core. See pages 60 and 229 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.

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

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 form and return 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 junior college, community college or other university may be eligible for advanced placement at the second-year level or above if previous work includes a minimum of 32 semester units of acceptable academic credit in a prearchitecture 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 programs to be evaluated for advanced placement in the fall semester. Applicants must submit a portfolio by February 1. 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 information about qualifying for 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 of each student while in attendance. Appointments for interviews 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 requirement, 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 S	EMESTER	UNITS
ARCH 102aL	Architectural Design I	4
ARCH 105L	Fundamentals of Desig	n
	Communication	2
ARCH 114	Architecture: Culture an	nd
	Community	2
MATH 108*	Precalculus, or	
WRIT 140*	Writing and Critical	
	Reasoning	4
General Education	on, Social Issues	4
		16
FIRST YEAR, SECON	D SEMESTER	UNITS
ARCH 102bI	Architectural Design I	4

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	n	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	n	4
		17

SECOND YEAR, SEC	OND SEMESTER	UNITS
ARCH 202bL	Architectural Design II	6
ARCH 211	Materials and Methods of	of
	Building Construction	3
ARCH 213b	Building Structures and	
	Seismic Design	3
ARCH 270	Introduction to	
	Architectural Studies	2
Elective		2
	•	16
		10

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	on	4
Professional elec	tives	6
		16

THIRD YEAR, SECOND	SEMESTER	UNITS
ARCH 315	Design for the Luminou and Sonic Environment	s 3
ARCH 411	Architectural Technolog	y 3
Professional electiv	ves	6
General Education	ı	4

FOURTH YEAR, FIRST	SEMESTER	UNITS
ARCH 314	History of Architecture:	
	Contemporary Issues	3
ARCH 525	Professional Practice:	
	Pre-Design, Project	
	and Office Administration	on 3
Professional electi	ves	6
General Education	n	4
		16
FOURTH YEAR, SECO	ND SEMESTER	UNITS
ARCH 526	Professional Practice:	
	Legal and Economic	
	Context, Project	
	Documentation	3
ARCH 470	Capstone Seminar	4
Professional electi	ves	3
General Education	n or elective	5
		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 229 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

By pursuing a degree in landscape architecture, students develop their ability to critically examine and creatively respond to a wide array of environmental problems. The development of young professionals who can take on the challenge of working in interdisciplinary fields, mediating between the goals and desires of diverse groups while soliciting their participation and pressing for creative solutions, requires certain fundamental skills. The program will encourage and develop the following skills and abilities in students so that they can flourish in a professional setting:

- Knowledge of the physical world and the interrelationships between humans and the biological systems of which they are part.
- The ability to delineate the critical issues affecting a site through an inventory and analysis of physical, social and cultural factors; and recognition of the hidden trade-offs inherent in such an evaluation.
- The ability to use their knowledge and experience to creatively respond to the problems that confront them and to have the determination to make their ideas a reality.

- The ability to effectively communicate with peoples of diverse backgrounds through both words and images.
- The ability to deal with individuals, community groups, public agencies or large corporations, and to work in concert and manage conflict through development.
- 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. 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 performed collaboratively to develop the students' 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	1
	Community	2
General		
Education*	Social Issues	4
WRIT 140*	Writing and Critical	
	Reasoning	4
	-	17
		16

*Taken concurrently

FIRST YEAR, SECON	ID SEMESTER	UNITS
ARCH 102bL	Architectural Design I	4
ARCH 211	Materials and Methods	of
	Building Construction	3
General Educat	ion	8
		15
SECOND YEAR, FIR	ST 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 Educat	ion	4
		17
SECOND YEAR, SEC	COND 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

	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, SECON	ID SEMESTER	UNITS
ARCH 207	Computer Applications	UNITS
		UNITS 2
	Computer Applications	
ARCH 207	Computer Applications in Architecture	
ARCH 207	Computer Applications in Architecture Landscape Architecture	2
ARCH 207 ARCH 360bL	Computer Applications in Architecture Landscape Architecture Design II	2
ARCH 207 ARCH 360bL	Computer Applications in Architecture Landscape Architecture Design II Plant Material	2
ARCH 207 ARCH 360bL	Computer Applications in Architecture Landscape Architecture Design II Plant Material Identification:	2
ARCH 207 ARCH 360bL	Computer Applications in Architecture Landscape Architecture Design II Plant Material Identification: California Plant Communities	2

FOURTH YEAR, FIRST S	EMESTER	UNITS
	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 VEAR SECON	D CEMPCTED	
FOURTH YEAR, SECON	D SEMESTER	UNITS
·	D SEMESTER Landscape Architecture	UNITS
ARCH 461L		
ARCH 461L	Landscape Architecture	
ARCH 461L ARCH 525	Landscape Architecture Comprehensive Project	
ARCH 461L ARCH 525	Landscape Architecture Comprehensive Project Professional Practice:	6
ARCH 461L ARCH 525	Landscape Architecture Comprehensive Project Professional Practice: Pre-Design, Project and	6
ARCH 461L ARCH 525	Landscape Architecture Comprehensive Project Professional Practice: Pre-Design, Project and	3 5 14

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.

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

REQUIRED COURSES	UN	IITS
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 in landscape architecture provides students with the ability to integrate the natural and cultural profession of landscape architecture into their course of study. Students will be instructed about natural resources and their importance in the built environment. The art of the garden in literature, music, painting and sculpture will be presented as it relates to human endeavor and the resulting cultures. 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. There is no preset GPA requirement. No standardized test or foreign language skills are required for admission.

Course Requirements

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

	UNITS
Workshop in Architectu	re 2
Ecological Factors in	
Design	3
History of Landscape	
Architecture (Western	
Tradition)	4
RSES (14 UNITS)	UNITS
Plant Material	
Identification:	
Horticulture	4
Materials and Methods	
of Landscape	
Architecture	3
People, Places and	
Culture: Architecture	
of the Public Realm	4
	Ecological Factors in Design History of Landscape Architecture (Western Tradition) RSES (14 UNITS) Plant Material Identification: Horticulture Materials and Methods of Landscape Architecture People, Places and Culture: Architecture

ARCH 466	Nature, Landscape and Gardens in		ARCH 561	Architecture in the Urban Landscape:
	Non-Western Cultures	4		Projects and Places
ARCH 499	Special Topics	2-4	ARCH 563	Architecture in the
ARCH 532	Elements of the			Urban Landscape:
	Urban Landscape	2		Comparative Theories
ARCH 533	Urban Landscape			
	Case Studies	2		
ARCH 536	The Landscape			
	Planning Process	4		

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 104 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 studyabroad program in Milan, a city in the forefront 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 12 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.

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-, threeand 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 Graduate Programs 115

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.

During the past several years a large number of the world's most distinguished architects have lectured at USC. These include Frank Gehry, Mario Botta, Thom Mayne, Fumihiko Maki, Jean Nouvel, Henry Cobb, Richard Meier, Will Bruder, Enrique Norten, Mark Mack and Steven Ehrlich.

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

All graduate students are expected to complete a minimum of 12 units per semester, spring and fall, in any of the school's programs.

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.

The thesis or directed design research may be completed in additional semesters when appropriate. Failure to complete such courses on schedule results 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.

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 judgement 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. Other electives, as approved by the program director, may be used to complete program requirements.

REQUIRED COURSES		UNITS
ARCH 513L	Seminar: Advanced	
	Structures	4
ARCH 515L	Seminar: Advanced	
	Environmental Systems	4
ARCH 611	Advanced Building Syste	ems
	Integration	4
Electives (as spec	ified by the director)	4

SAMPLE ELECTIVES		UNITS
ARCH 507	Theories of Computer	
	Technology	3
ARCH 613L	Seminar: Structures	
	Research	4
ARCH 615L	Seminar: Environmenta	1
	Systems Research	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
ARCH 532	Elements of the	
	Urban Landscape	2
ARCH 535ab	Materials and Methods f	or
	Landscape Architecture	3-3
ARCH 590	Directed Research	2-4
	(must be in historic	
	preservation)	
ARCH 605aL	Graduate Architecture	
	Design	6
ARCH 611	Advanced Building Syste	ems
	Integration	4

Master of Architecture

Programs

Two master's programs are offered: a track in American Architecture and Urbanism, the "+2" program for students with preprofessional architecture degrees, and a post-professional Master of Architecture programs for students who hold a professional degree such as the Bachelor of Architecture or its equivalent.

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

Admitted students must already hold fouryear architectural studies degrees from U.S. schools with accredited professional architecture programs or from international programs that are deemed equivalent. All students will matriculate in the fall semester and will 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 64 credit units including prerequisite Basic Studies and 48 units of graduate level courses including Advanced Studies and approved electives.

(1) To complete Basic Studies (equivalent to the following courses 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 402ab 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) To complete Advanced Studies courses including: 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.

Thesis or Directed Design Research Option
An independent study 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
Basic Studies or l	Electives	10
		16

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FIRST YEAR, SECON	D SEMESTER	UNITS
ARCH 505bL	Graduate Architecture	
	Design	6
Basic Studies or	Electives	10
		16
SECOND YEAR, FIRS	T SEMESTER	UNITS
ARCH 532	Elements of the Urban	
	Landscape	2
ARCH 561	Architecture in the Urba	n
	Landscape: Projects and	
	Places	2
ARCH 605aL	Graduate Architecture	
	Design	6
Basic Studies or	Electives	6
		16

SECOND YEAR, SECO	OND SEMESTER	UNITS
ARCH 533	Urban Landscape	
	Case Studies	2
ARCH 563	Architecture in the Urba	n
	Landscape: Comparative	•
	Theories	2
ARCH 605bL	Graduate Architecture	
	Design	6
Basic Studies or I	Electives*	6
		16

OPTIONAL	THIRD	YEAR,	FIRST	SEMESTER	UNITS

 $\begin{array}{ll} ARCH\ 693bL^{**} & M.Arch.\ Thesis,\ Option\ I,\ or \\ ARCH\ 695bL^{**} & M.Arch\ Thesis,\ Option\ II \end{array}$

Master of Architecture: Post-Professional

Candidates for admission must have a fiveyear Bachelor of Architecture degree or its equivalent. Completion of the degree requires 48 units, including 20 units of specified courses, 12 units of thesis or directed design research, and 16 units of approved electives. The specified 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

SEMESTER	UNITS
Elements of the	
Urban Landscape	2
Architecture in the Urban	n
Landscape: Projects and	
Places	2
Graduate Architecture	
Design	6
	6
-	16
	Elements of the Urban Landscape Architecture in the Urban Landscape: Projects and Places Graduate Architecture

ARCH 533	Urban Landscape	
	Case Studies	2
ARCH 563	Architecture in the Urban	1
	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

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

UNITS

FIRST YEAR, SECOND SEMESTER

^{*}Students electing the independent study option may substitute ARCH 693a or ARCH 695a.

^{**}For students who have elected the independent study option.

Master of Landscape Architecture

Degree Requirements

Admission to the Master of Landscape Architecture program requires a Bachelor of Architecture or Bachelor of Environmental Design with a major in landscape architecture. Applicants are also expected to have completed 6 units in the history of landscape architecture (ARCH 534ab or equivalent) and 6 units in materials and methods for landscape architecture (ARCH 535ab 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).

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

FIRST YEAR, SECON	ID SEMESTER	UNITS
ARCH 533	Urban Landscape	
	Case Studies	2
ARCH 563	Architecture in the Un	rban
	Landscape: Comparat	ive
	Theories	2
ARCH 697aL	M.L.Arch. Thesis,	
	Option II, or	
ARCH 698aL	M.L.Arch. Thesis,	
	Option I	4
Electives	1	8
		16
SECOND YEAR, FIR	ST SEMESTER	UNITS
ARCH 697bL	M.L.Arch. Thesis,	
	Option II, or	
ARCH 698aL	M.L.Arch. Thesis,	
	Option I	8
Electives	~ P	8
Electives	S.F. Wall	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 S	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, SECON	D SEMESTER	16 UNITS
FIRST YEAR, SECON	D SEMESTER Architecture in the Urba	UNITS
		UNITS
	Architecture in the Urba	UNITS n
	Architecture in the Urba Landscape: Projects and	UNITS n
ARCH 561	Architecture in the Urba Landscape: Projects and Places	units n
ARCH 561	Architecture in the Urba Landscape: Projects and Places Architecture in the Urba	units n
ARCH 561	Architecture in the Urba Landscape: Projects and Places Architecture in the Urba Landscape: Comparative	units n
ARCH 561 ARCH 563	Architecture in the Urba Landscape: Projects and Places Architecture in the Urba Landscape: Comparative Theories	units n 2

Option I

Topics in Modern

16

UNITS

3

3 12

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	ι	JNITS
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 Histori	c
	Site Documentation	2
ARCH 553	History of American	
	Architecture and Urba	nism 4
ARCH 691abz	Historic Preservation	
	Thesis Preparation and	1
	Thesis	2-6-0
48-Unit Sample	Curriculum	
FIRST YEAR, FIRST S	SEMESTER	UNITS
ARCH 450	Fundamentals of Histo	oric
	Preservation	4

ARCH 553

Electives

Architecture and Urban Historic Preservation Thesis Preparation and Thesis		ARCH 551	Architecture in Southern California Conservation Methods and Materials Historic Preservation
Curriculum		1111011 0714	Thesis Preparation and Thesis
MESTER	UNITS	Electives	1 Hesis
Fundamentals of Histo		Electives	- 1110313
-		Electives	-

12

Electives

ARCH 404

FIRST YEAR, SECOND SEMESTER

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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, SECO	ND 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	UNIT	s
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

FIRST TEAR, FIRS	SEIVIESTER	UNITS
ARCH 450	Fundamentals of Histori	c
	Preservation	4
ARCH 553	History of American	
	Architecture and Urbanis	sm 4
Electives		4
		12

ARCH 404	Topics in Modern	
	Architecture in Southern	1
	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, FIF	RST SEMESTER	UNITS
	Historic Preservation	UNITS
ARCH 550		UNIT
	Historic Preservation	
ARCH 550	Historic Preservation Management, Planning	
	Historic Preservation Management, Planning and Development Historic Preservation	
ARCH 550	Historic Preservation Management, Planning and Development	
ARCH 550 ARCH 691b	Historic Preservation Management, Planning and Development Historic Preservation Thesis Preparation and	2
ARCH 550	Historic Preservation Management, Planning and Development Historic Preservation Thesis Preparation and	UNITS

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
D 1 '		
Research semin	nars are:	

ARCH 613L	Seminar: Structures
	Research, or
ARCH 615L	Seminar: Environ-
	mental Systems
	Research

48-Unit Sample Curriculum FIRST YEAR, FIRST SEMESTER

Core seminar(s) ARCH 596	and/or research seminar(s) Building Science	12
	Thesis Preparation	1
		13
FIRST YEAR, SECON	D SEMESTER	UNITS
Core seminar an	d/or research seminar	4
Electives		7
		11
SECOND YEAR, FIRS	ST SEMESTER	UNITS
ARCH 692aL	Building Science	
	Thesis	6
Electives		6

UNITS

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

carricarani		
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, SECON	D SEMESTER	UNITS
ARCH 613L	Seminar: Structures	
	Research, or	
ARCH 615L	Seminar: Environmenta	1
	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	U	NITS
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, PLANNIN	IG, AND DEVELOPMENT UNI	TS
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: four 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	n
	Landscape: Projects and	
	Places	2
ARCH 563	Architecture in the Urban	n
	Landscape: Comparative	
	Theories	2
ARCH 697abzL	M.L.Arch. Thesis, Optio	n
	II, or	
ARCH 698abzL	M.L.Arch. Thesis, Optio	n
	I	4-8-0
Electives		10

Courses of Instruction 121

STUDIOS		UNITS
ARCH 542abL	Landscape Architecture Design	6-6
POLICY, PLANNING, AND DEVELOPMENT UNITS		
PPD 500	Cross-Sectoral Governa	nce 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* or departmental approval.

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 207b). *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, Fa) Investigation of computer graphic applications, emphasizing the role of computers in helping designers create and communicate using color (rendering), form (modeling), and

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:* 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.

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.

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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.

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. *Prerequisite:* departmental approval.

441 A History of Architectural Theory: 1400-1914 (2, Sp) 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 360b.

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.

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

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

501 Comprehensive Studio Support and Enrichment (2, Sp) 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 402aL; corequisite: ARCH 501; b: Prerequisite: ARCH 502a.

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, Sp) 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 402cL.

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. *Prerequisite:* departmental approval.

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). *Prerequisite:* departmental approval.

524 Professional Practicum (1, max 2, Sm)

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)

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

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.

ARCH 523.) Prerequisite: ARCH 302bL.

532 Elements of the Urban Landscape (2, **5p**) 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, Sp) 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 integra-

fields; emphasis on development of integrative schematic proposals as well as detailed open space design.

550 Historic Preservation Management, Planning and Development (4, Sp) 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, Fa)** 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, Fa) 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, Fa) 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, Fa) 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. *Prerequisite:* ARCH 513*L*.

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. *Prerequisite:* ARCH 515*L.*

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) $Graded\ CR/NC$.

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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.