

# Architecture

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## The School of Architecture

### Dean

Lars Lerup

### Associate Dean

John J. Casbarian

### Professors

William T. Cannady

Albert H. Pope

Gordon G. Wittenberg, Jr.

### Associate Professors

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Farès el-Dahdah

Carlos Jimenez

Sanford Kwinter

Spencer W. Parsons

### Assistant Professors

David Brown

Dawn Finley

Christopher Hight

Keith Krumwiede

Nana Last

### Lecturers

Louis DeLaura

Alan Fleishacker

James Furr

Nonya Grenader

Tom Lord

Mark Oberholzer

Frank S. White

### Adjunct Lecturer

Stephen Fox

### Visiting Critics

David Guthrie

Doug Oliver

William Williams

### Visiting Professor

Danny M. Samuels

Mark Wamble

### Wortham Fellow in Architecture

Sean Lally

*Degrees Offered:* B.A., B.Arch., M.Arch., M.Arch. in Urban Design, D.Arch.

The principal goal of the School of Architecture is to contribute to a more humane environment. The school focuses on teaching and research, the development of a broad liberal education for undergraduates in the allied sciences and arts of architecture, and professional graduate and postgraduate education in architecture and urban design. Intimate student-faculty interaction, academic freedom, and unrestricted institutional cooperation within and outside the university are distinctive qualities of the architecture degree programs at Rice.

*"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 two types of degree: the Bachelor of Architecture and the Master of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards.*

*Masters degree programs may consist of a pre-professional undergraduate degree and a professional degree, which, when earned sequentially, comprise an accredited professional education. However, the professional degree is not, by itself, recognized as an accredited degree."* —National Architectural Accrediting Board

The undergraduate programs maintain a balance between academic studies and professional practice. Lectures and other public programs, visiting faculty, scholarly presentations, and the Preceptorship Program, which provides a one-year internship in outstanding architectural offices throughout the U.S., Europe, and Japan, all complement the school's core of distinguished teachers and practitioners.

The graduate programs have three areas of emphasis: architectural design, with particular attention paid to history, theory, and practice; urban design, where the concern is the emerging form of the American city; and research in computer visualization, which uses the resources of the state-of-the-art Rice Advanced Visualization Lab.

### **Degree Requirements for B.A. in Architecture or Architectural Studies**

For general university requirements, see Graduation Requirements (pages 20–23). The conditions specified here for each major also satisfy the university distribution requirements.

**B.A. in Architecture.** The curriculum for architecture majors is divided into a foundation sequence taken in the freshman and sophomore years and a preprofessional sequence taken in the junior and senior years. The foundation sequence consists of four semesters of design studios and other related courses in architecture. The first-semester studio develops basic design skills through directed explorations and problem-solving exercises in form, texture, color, material, and structures. In the subsequent 3 studios, through a carefully sequenced series of exercises, students are introduced to a broad range of architectural design issues, processes, and methods. Students are required to take 4 courses in the history and theory of art and architecture during the freshman and sophomore years in addition to two semesters of architectural technology. They must also complete university distribution requirements. It is recommended that students take an introductory drawing course during their first two years of study to develop visual skills.

Students who satisfactorily complete the foundation sequence may, upon approval of their major, enter the junior and senior year preprofessional sequence. The fall studios for the third and fourth years are organized around the workshop model and emphasize complex building/computer applications and urban design issues, respectively. The spring studios are vertically integrated, allowing students to select offerings emphasizing specialized design topics such as technology, landscape, historical precedent, and urban design. During the third and fourth years, students are required to take 2 additional technology courses and to fulfill all remaining school or university distribution requirements. Students wishing to pursue the professional degree in architecture may apply for admission to the Bachelor of Architecture (B.Arch.) degree program during the second semester of the fourth year.

**B.A. in Architectural Studies.** Students who have been admitted as architecture majors and who have successfully completed the two-year foundation program may choose the architectural studies curriculum. The first four semesters of the curriculum are identical to the foundation sequence of the architecture major except for the omission of 1 technology course. Subsequent requirements are the completion of 1 additional studio and 4 elective courses in architecture. The program provides basic preparation for later professional study while allowing students to pursue other academic interests in depth.

## Typical Curriculum for B.A. in Architecture

### *First Semester*

ARCH 101 *Principles of Architecture I*  
 HART 101 *Introduction to History of Art*  
 PHYS 101 *Mechanics (with lab)*  
 LPAP 101 *Lifetime Physical Activities*  
 Approved architecture-restricted distribution course in humanities

### *Second Semester*

ARCH 102 *Principles of Architecture I*  
 ARCH 132 *Freshman Seminar*  
 HART 102 *Introduction to History of Art*  
 LPAP 102 *Lifetime Physical Activities*  
 MATH 101 *Single Variable Calculus*  
 Approved architecture-restricted distribution course in humanities

### *Third Semester*

ARCH 201 *Principles of Architecture II*  
 ARCH 207 *Introduction to the Design of Structures*  
 ARCH 345 *Architecture and the City I*  
 Studio Art Elective\*  
 Elective\*

### *Fourth Semester*

ARCH 202 *Principles of Architecture II*  
 ARCH 214 *Design of Structures II*  
 ARCH 346 *Architecture and the City II*  
 Approved architecture-restricted distribution course in social sciences  
 Elective\*

### *Fifth Semester*

ARCH 301 *Principles of Architecture III*  
 ARCH 315 *Building Climatology*  
 Architectural Theory Elective  
 Elective\*  
 Elective\*

### *Sixth Semester*

ARCH 302 *Principles of Architecture III*  
 ARCH 316 *Design of Structures III*  
 Elective\*  
 Elective\*  
 Elective\*

### *Seventh Semester*

ARCH 401 *Principles of Architecture IV*  
 Elective\*  
 Elective\*  
 Elective\*

### *8th Semester*

ARCH 402 *Principles of Architecture IV*  
 Elective\*  
 Elective\*  
 Elective\*

\*All courses must be selected to satisfy both architecture major requirements and university distribution requirements.

## Degree Requirements for a Bachelor of Architecture (B.Arch.)

The Bachelor of Architecture program is only open to students who have completed the undergraduate preprofessional architecture program at Rice. Upon admission, students are assigned a preceptorship, which takes place immediately after receipt of the Bachelor of Arts in Architecture degree. The preceptorship program balances academic learning with professional experience. Qualified students who have been admitted to the B.Arch. degree program are assigned to work for a year in the United States or abroad with leading architectural offices designated by the school as preceptors. The B.Arch. degree requires the successful completion of the B.A. in architecture, completion of the two-semester preceptorship, and completion of 2 graduate studios and 5 approved lecture or seminar courses.

## Preceptors

Allied Works Portland	Office dA, Inc Boston
Backen Arrigoni & Ross, Inc. San Francisco	Ong & Ong Architects Singapore
Cambridge Seven Associates Cambridge	Pei, Cobb, Freed & Partners New York
Gensler Houston, London, Los Angeles, San Francisco	Cesar Pelli & Associates New Haven
Michael Graves Architects Princeton	Renzo Piano Building Workshop Genoa, Paris
Kohn Pedersen Fox, Architects London, New York	Robert A. M. Stern Architects New York
Lake/Flato Architects San Antonio	Rogers Marvel Architecture New York
Machado–Silvetti Associates Cambridge	SOM San Francisco
Richard Meier and Partners Los Angeles	Venturi Scott–Brown & Associates Philadelphia
Mitchell Giurgola New York	Weiss/Manfredi Architects New York
NBBJ Seattle	Zimmer Gunsul & Frasca Los Angeles

## Master of Architecture

The Master of Architecture (M.Arch.) program prepares graduates for a full range of professional activities in the field of architecture. It is offered to individuals who possess a bachelor's degree. Students follow a course of study in all four areas of the curriculum: design; history, theory, and criticism; structures, practice, and environments; and computing, logic, and representation. These areas of study are sustained by groups of courses from which students may choose offerings according to the requirements of their particular program. Strong emphasis is given to developing design skills, logic, and imagination through an intensive series of design studio courses. Students are also required to prepare an independent thesis before graduating. A potential exists for dual degrees.

The Master of Architecture program is accredited by the National Architectural Accrediting Board (NAAB). It leads to the degree of Master of Architecture, which qualifies graduates to take the state professional licensing examination after completing the required internship in an architectural office.

**Programs of Study.** Three program options are available at the Master of Architecture level. Options 1, 2, and 3 differ according to the bachelor's degree received before entering the graduate program.

**Option 1: Seven-Semester Program.** Option 1 is offered to individuals who hold a four-year undergraduate degree with a major in a field other than architecture. Preference for admission is given to those who have completed a balanced education in

the arts, sciences, and humanities. A minimum of two semesters of college-level courses in the history of art and/or architecture are recommended; so is a minimum of one semester of college-level courses in mathematics and physics. Previous preparation in the visual arts is also desirable and so are courses in philosophy, literature, and economics.

To graduate, students must complete a four-semester core curriculum (76 credit hours), which is followed by a three-semester advanced curriculum (57 credit hours). Course work in both core and advanced curricula consists of 7 studios (including thesis) and 20 distribution courses (133 credit hours).

## **Core Curriculum**

### ***First Semester***

ARCH 501 *Core Design Studio I*  
 ARCH 507 *Introduction to Design of Structures II*  
 ARCH 633 *Introduction to Computer Applications in Architecture*  
 ARCH 685 *Architecture and Society I*

### ***Third Semester***

ARCH 503 *Core Design Studio III*  
 ARCH 515 *Design of Structures III*  
 ARCH 683 *20th-Century History of Ideas in Architecture*  
 Dist. Elective (Comp., Log., and Repr.)

## **Advanced Curriculum**

### ***Fifth Semester***

ARCH 601 *Architectural Problems*  
 Dist. Elective (Hist., Theory, and Crit.)  
 Dist. Elective (Comp., Log., and Repr.)  
 Elective

### ***Seventh Semester***

ARCH 703 *Thesis Studio* or equivalent  
 Elective  
 Elective

### ***Second Semester***

ARCH 502 *Core Design Studio II*  
 ARCH 514 *Design of Structures II*  
 ARCH 636 *Computer Aided Design in Architecture*  
 ARCH 686 *Architecture and Society II*

### ***Fourth Semester***

ARCH 504 *Architectural Problems*  
 ARCH 516 *Building Climatology*  
 ARCH 623 *Professionalism and Manag. in Architecture*  
 Dist. Elective (Hist., Theory, and Crit.)

### ***Sixth Semester***

ARCH 602 *Architectural Problems*  
 ARCH 702 *Pre-Thesis Preparation*  
 Dist. Elective (Struct., Pract., and Env. )  
 Elective

**Option 2: Five-Semester Program.** Option 2 is offered to individuals who hold a four-year undergraduate degree with a major in architecture. Preference for admission is given to those who have successfully completed between four and six semesters of undergraduate design studio as well as undergraduate courses that are analogous to those given in the first year of Option 1. A minimum of two semesters of college-level courses in the history of art and/or architecture are recommended; so is a minimum of one semester of college-level courses in mathematics and physics.

Students in this program enter into the second year of the core curriculum (two semesters, 38 credit hours), followed by the advanced curriculum (three semesters, 57 credit hours). Course work in both core and advanced curricula consists of 5 studios (including thesis) and 14 distribution courses (95 credit hours).

**First Semester**

ARCH 503 *Core Design Studio III*  
 ARCH 515 *Design of Structures III*  
 ARCH 683 *20th-Century History of Ideas  
 in Architecture*  
 Dist. Elective (Comp., Log., and Repr.)

**Second Semester**

ARCH 504 *Architectural Problems*  
 ARCH 516 *Building Climatology*  
 ARCH 623 *Professionalism and Manag.  
 in Architecture*  
 Dist. Elective (Hist., Theory, and Crit.)

**Advanced Curriculum**

**Third Semester**

ARCH 601 *Architectural Problems*  
 Dist. Elective (Hist., Theory, and Crit.)  
 Dist. Elective (Comp., Log., and Repr.)  
 Elective

**Fourth Semester**

ARCH 602 *Architectural Problems*  
 ARCH 702 *Pre-Thesis Preparation*  
 Dist. Elective (Struct., Pract., and Env.)  
 Elective

**Fifth Semester**

ARCH 703 *Thesis Studio\**  
 Elective  
 Elective  
 \*or an approved alternative

**Option 3: Three-Semester Program.** Option 3 is offered to individuals who hold a professional degree in architecture (B.Arch.), or its equivalent from a foreign university. Preference for admission is given to those who have significant practical experience in architecture and who have demonstrated high achievement in design.

To graduate, students must complete a three-semester advanced curriculum of elective courses. Course work consists of 3 studios (including thesis) and 8 distribution courses (57 credit hours).

**First Semester**

ARCH 601 *Architectural Problems*  
 Dist. Elective (Hist., Theory, and Crit.)  
 Dist. Elective (Comp., Log., and Repr.)  
 Elective

**Second Semester**

ARCH 602 *Architectural Problems*  
 ARCH 702 *Pre-Thesis Preparation*  
 Dist. Elective (Struct., Pract., and Env.)  
 Elective

**Third Semester**

ARCH 703 *Thesis Studio\**  
 Elective  
 Elective  
 \*or an approved alternative

**Thesis Requirement.** All M.Arch. candidates are required to develop a thesis in partial fulfillment of graduate degree requirements. Students are asked to demonstrate their ability to independently undertake research and analysis as well as develop a hypothesis and a thorough demonstration of the thesis. This must take the form of either a research thesis (written thesis) or a thesis with a design demonstration (design thesis). Both thesis formats must address architectural consequences that may be derived from within or outside conventional boundaries of the architectural discipline.

Thesis preparation begins in the next-to-last semester with a 3-hour independent study course leading to the submission of a thesis proposal and the selection of a thesis director plus two faculty members as readers. While the thesis is independent work carried out by the student under the direction of a chosen adviser, it is organized as a studio in the fall term of the academic year. The thesis studio provides a support setting

for both formal and informal review processes throughout the thesis semester. In early January, thesis projects are reviewed by a panel of guest critics and publicly presented in the Farish Gallery.

### **Master of Architecture in Urban Design**

The Master of Architecture in Urban Design (MAUD) program prepares graduates for a full range of professional activities in the field of urban design. It is offered to individuals who already hold a professional degree qualifying them for registration as architects or landscape architects. The MAUD program makes extensive use of Houston as a setting for case studies and design problems. During the first year, strong emphasis is given to developing design skills, logic, and imagination through an intensive series of urban design studio courses. Three additional courses in urban history, planning, and design are required each semester. Students are also required to prepare an independent thesis during their third semester.

### **Doctor of Architecture**

Admission to the Doctor of Architecture program requires either a bachelor's or master's degree in architecture and a detailed statement of research concerns and anticipated array of investigation. A student entering with a master's degree normally takes three semesters of course work before the qualifying examination. A student with a bachelor's degree normally requires two to five semesters of course work before the qualifying examination. Preparation for doctoral candidacy may include a foreign language or computer skills. Specific course requirements are established individually when a student is admitted to the program.

After successful completion of all required course work, students may apply to take the qualifying examination after submitting a prospectus outlining their research programs for the doctoral dissertation. The dissertation must represent an original contribution to knowledge in the field of architecture. Completion and successful defense of the dissertation will take a minimum of one year. University requirements for thesis (dissertation) preparation and defense must be carefully followed. The time limit for successful defense of the dissertation is established by university policy. Students should not expect to complete the Doctor of Architecture program in less than four years of full-time study.

**See ARCH in the Courses of Instruction section.**