

# ARCHITECTURAL STUDIES: STRUCTURES, MS

*for the degree of Master of Science in Architectural Studies, Structures Concentration*

The School of Architecture offers a Structures Concentration (available online or in-person) under its MS in AS degree program. The online and in-person programs feature identical program contents and admission criteria. Completion of this in-depth plan of study will result in recording of Structures as a Concentration on the student's transcript under the MS in AS degree.

## Admission

The admission grade point average for full standing in the Graduate College and the school must be at least 3.0 (A = 4.0). For applicants who meet the other requirements but have an admission GPA under 3.0, admission with limited standing may be permitted if evidence of exceptional qualification is presented.

Applicants are selected for admission on the basis of undergraduate academic performance and profession-related experience. Application material is evaluated by faculty members. The faculty's recommendations are based upon an appraisal of the admission grade point average determined from official transcripts, a portfolio or brochure of applicant's past work in architecture, a statement of objectives, three letters of recommendation, and relevant professional work experience.

Application forms for graduate admission and financial aid may be obtained from the website (<https://arch.illinois.edu/programs-applying/admissions/>). Application may be made on-line. Graduate Record Examination (GRE) scores are not required for School of Architecture Masters Degree applicants; the GRE is required for all Doctor of Philosophy applicants.

All international degree-seeking applicants are required to submit the results of an accepted test as evidence of English proficiency unless they qualify for an exemption. Official scores are required to be submitted directly from the testing agency. All scores must be dated within two years of the beginning of the proposed admission term. English proficiency requirements for graduate admission (<https://grad.illinois.edu/admissions/instructions/04c/>) are detailed on the Graduate College website.

## Financial Aid

Financial aid for graduate students in architecture is available in the form of fellowships and assistantships (teaching, research, and graduate or resource). Qualified candidates are considered for financial support upon application and in subsequent years of study.

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Students interested in participating in the Structures Concentration must be admitted to the School of Architecture's MS in AS degree program, register their intent to enter the Structures Concentration with the

School's Graduate Office prior to completing their first semester in their degree program, and complete a total of 32 hours with 27 graduate credit hours of architectural structures courses from the required courses list below. Prerequisite subjects for the Structures Concentration include the following:

- Undergraduate engineering requirements such as physics, calculus series, statics, and mechanics of materials
- Structural analysis
- One semester each in structural steel design and reinforced concrete design

Equivalents to these courses may be accepted if approved by the faculty member in charge of the subject matter. Documentations such as syllabus, course notes, textbook, and other information may be required for such approvals.

Courses taken on design of structural steel and reinforced concrete need to be according to the standards developed by the American Institute of Steel Construction (AISC) and American Concrete Institute (ACI). Students not having learned these standards may be required to take courses in those subjects before taking certain core courses.

Applicants lacking any of the subject requirements will be asked to complete prerequisites before taking courses required for this degree. Such situations may extend the duration of completion of the degree. Prerequisite undergraduate courses will not count toward a graduate degree, but graduate courses may be considered as electives with the consent of the student's advisor.

### Master of Science in Architectural Studies with the concentration in Structures, non-thesis program.

Code	Title	Hours
ARCH 550	Design of Steel and Reinforced Concrete Structures II	4
ARCH 551	Structural Analysis	4
ARCH 552	Soil Mech and Foundations	3
ARCH 553	Advanced Reinforced Concrete Design	3
ARCH 554	Adv Steel Design	3
ARCH 556	Advanced Structural Planning	4
ARCH 557	Seismic Analysis and Design	3
ARCH 560	Advanced Structural Analysis	3
<b>Total Concentration Hours:</b>		<b>27</b>
<b>Additional Electives:</b>		<b>5</b>
<b>Total Hours:</b>		<b>32</b>

### Other Requirements

Requirement	Description
Other requirements may overlap	
Candidates must spend at least two semesters and earn at least half of the required graduate hours in residence.	
Minimum 500-level Hours Required	12
Overall:	
Minimum GPA:	2.75

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When students complete the MS degree program, they will be able to:

1. Apply Specialized Knowledge
  - a. Engage in the practice of architecture in its many forms.
  - b. Employ design processes to understand, conceive, and create the many facets of built environments.
  - c. Utilize the interplay of form and space to create compelling experiences in the built environment.
  - d. Address environmental, social, political, cultural, and economic challenges through the application of design inquiry.
  - e. Apply advanced documentation, research, analysis, and design techniques to create innovative design solutions to pressing global challenges.
2. Apply Broad and Integrative Knowledge
  - a. Solve complex problems through the use of advanced design techniques.
  - b. Communicate complex ideas and concepts through a mastery of graphic, verbal, physical, and digital means.
  - c. Integrate community voices, cultural perspectives, and participatory practices into design solutions.
  - d. Employ an understanding of the complex intersections between design and environmental, social, economic, political, and cultural phenomena in historical and contemporary contexts.
  - e. Use scholarly inquiry to answer questions in support of design solutions.
3. Utilize Differentiated Modes of Thinking
  - a. Understand, differentiate, and apply analytical, critical, and conceptual thinking to the design challenges of the twenty-first century.
  - b. Evaluate and apply theories of the built environment to understand their impacts on global ecology, human experience, and wellbeing.
  - c. Research and critically analyze historic and contemporary humanistic conditions related to the built environment in local, regional, and global geographies.
4. Collaborate Successfully
  - a. Foster teamwork and consensus decision-making.
  - b. Lead and steer complex processes to completion.
  - c. Value and integrate interdisciplinarity as well as diverse disciplinary approaches in the realm of design,
5. Contributing to Community, Civic, and Global Equity
  - a. Demonstrate the ability to make empathic and ethical decisions throughout the design process.
  - b. Work toward a more inclusive profession that welcomes practitioners of all genders, abilities, races, ethnicities, and ages.
  - c. Foreground social, environmental, and economic justice in the design of the environment to contribute to greater equity, diversity, and inclusion.

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## School of Architecture

School Director: Francisco Javier Rodríguez-Suárez  
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## College of Fine and Applied Arts

FAA website (<http://faa.illinois.edu>)

## Admissions

Graduate College Admissions & Requirements (<https://grad.illinois.edu/admissions/apply/>)