

Annual Key Assessment Findings and Curricular Improvements
School of Architecture and Planning
B.S. Program in Architecture

Key Assessment Findings

Specialized Accreditation Data

Architectural Accreditation: The National Architectural Accreditation Board (NAAB) reviews the school every six years. The most recent site visit, in February 2009, resulted in renewal of full accreditation. Of the 34 academic criteria used by NAAB, the visiting team found that thirteen were “well met” (exceeded expectations) and only three were “not met”, one of which was dropped as a criterion in the revised criteria approved in July 2009. This is an unusually favorable outcome.

Professional Licensure: A multi-day examination (the ARE) is required for professional licensure in architecture. Since most graduates do not take this examination for at least three years after graduation, and often longer, passage rates for alumni are not cited here.

Certification: A small number of students opt to take certification exams to become LEED® APs (LEED® Accredited Professionals) or CDTs (Certified Documents Technologists). The former is a program of the United States Green Building Council (USGBC) while the latter is conducted by the Construction Specifications Institute (CSI). Passage rates are quite high for those who take the exams.

Comprehensive Exams

The Comprehensive Building Design Studio (CBDS) and Supplement

The school conducts no comprehensive exams *per se*, but completion of CBDS is required.

In CBDS, students are tested on their mastery of subjects learned in their professional studies through performance designing a real project for a real client. The courses are organized in a way intended to simulate the work environment of architectural practitioners, and therefore comes with professional performance expectations. It functions as a capstone for the accredited program – the four-year B.S.Arch program and the first two years of the M.Arch3 program.

The studio focuses on a rigorous semester-long team project that requires development of urban design, architectural design, construction systems, environmental systems, structural systems, and building envelope for a project with a moderately complex program.

The studio component stresses collaboration among members of each student design team and with outside professional consultants. Client interaction is also stressed. Those role-playing the clients come in to discuss the project at the beginning of the semester and come to the major reviews to give student teams feedback.

The supplement course reviews a broad range of undergraduate material from prerequisite courses. For the first half of the course, a mix of faculty and local practitioners lecture on the various topics. In the second half, the practitioners serve as consultants to the individual student teams. At the end, they return to evaluate individual students through oral exams.

Team Project: The Building Design (Studio: Arch 402/503)

The project is completed in teams much like an architecture project would be completed in a professional environment. In spring 2011, nineteen teams, totaling ninety-nine students participated (although one withdrew from the course). Three teams fell below expectations in formal design and research, one in technical design, and two in communication.

Individual Project: The Detail Design (Studio: Arch 402/503)

In spring 2011, ninety-eight students completed the design of a set of construction details (as one student that began the course withdrew). Although the building as a whole is designed in teams, each student is required to design, in detail, one part of the building from foundation to roof, from one column to the next, and from the exterior wall to about ten feet inside the building. This way, students can demonstrate their understanding of construction, structural, and infrastructural systems, of the coordination of those systems, and of building envelope. While most students met the requirements, more than 10% did not.

Individual Examinations (Supplement: Arch 407/518)

In spring 2011, ninety-eight completed the Comprehensive Oral exams. At the end of the studio, before the final presentation, professional consultants return to administer the oral defenses, one on one with individual students. They assess how much each student understands the various disciplines involved in the project design, as well as the comprehensive whole. We did not conduct Mechanical, Electrical, and Plumbing Systems oral defenses this year. Close to 10% of the students did not do well in detailing.

Comprehensive Building Design Studio								
	Exceeded Expectations (3 pts)		Fully Met Expectations (2 pts)		Partly Met Expectations (1 pt)		<i>Mean¹</i>	<i>SD²</i>
Team Project: Building³								
Formal Design	5	26%	11	58%	3	16%	3.27	0.49
Research	6	32%	10	53%	3	16%	3.14	0.59
Technical Design	4	21%	14	74%	1	5%	3.11	0.56
Communication	5	26%	12	63%	2	11%	3.12	0.55
Individual Project: Details								
1/4" Bay and Envelope Model; 3-D Assembly Drawing; Wall and Building Bay Section	32	33%	55	56%	11	11%	3.18	0.61

Individual Exam³								
Conceptual and Formal Design	37	38%	55	56%	6	6%	3.28	0.48
Environmental Sustainability	29	30%	63	64%	6	6%	3.24	0.52
Structural Syst: Orals	54	55%	40	41%	4	4%	3.44	0.48
Detailing	25	26%	64	65%	9	9%	3.15	0.58

- Notes:
- 1) The mean is the average of all scores across the levels within the trait.
 - 2) The standard deviation (SD) is a measure of the variability of the data set, indicating how "spread out" these data are from the mean value.
 - 3) The total number of projects assessed was 19; the total number of individuals assessed was 98 as one of the original 99 withdrew.

Curricular Improvements

Recent improvements to the CBDS program

Size and complexity of projects: This past year, the project was larger, but again students complained that it was too large and longed for the smaller project. We continue to strive for the ideal project size.

Future planned improvements

Curricular changes: We have undergone curriculum changes, however students do not seem as well prepared for the scope of the capstone studio as in past years. Perhaps the scope needs to be redefined to reflect the change in the curriculum. This year also students did not seem adequately prepared for computer programs as they had been in the past.

Revision of the technical design curriculum: Given that students are still falling short on detailing of building assemblies, it seems students are not gaining the knowledge they need before the capstone studio. More study in the curriculum committee should be done on this issue.