



**Division of Art, Design and Architecture  
Department of Architecture**

Architecture 451: Architecture Design V  
Five Credit Hours

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**Syllabus**

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***College Catalogue Course Description***

An institutional design problem, typically a church and a school, in an urban setting. Technical issues such as construction techniques and building systems are addressed.

***Course Introduction***

A design problem that extends and develops issues of the physical and cultural context, site and building type analysis and programming in the design of the institutional building types such as a church or school. Understanding and application of construction (medium-scale construction methods, materials, systems, and documentation, cost estimating, building codes, and zoning ordinances), ecological issues, building systems, history and theory, are integrated through sketch and developed design solutions.

This course will prepare the student to prepare a comprehensive design, while familiarizing the student to the institutional building types of schools and churches. Upon successful completion of this course, the student should be able to present a clear and understandable part; a rigorously developed design; and thorough representation between plan, section and elevation. The student will be increasingly competent in CAD and Sketchup by the completion of this course.

In addition to the forma requirements of this course, we are participating in a carbon-neutral studio experiment along with 35+ other programs around the country and abroad. The purpose of this experiment is to begin defining and formalizing the means by which studio projects can address the issues of carbon-neutrality. The studio projects will utilize Green Globes as well as Ecocalculator as means by which carbon testing can occur, in conjunction with the various LEED systems as appropriate (NC and ND in particular).

This course is delivered by a professional educator/architect with particular research/practice expertise. These bear upon the specific delivery of this course. Students in this course will conduct research in *sustainable communities* and *sustainable technologies*. The course will rely heavily on both analogue and digital *representational* media including drawing, graphics, and model making. The course will also include the use of *simulation* software for testing airflow and day lighting strategies.

In addition, this course satisfies the NAAB student performance criteria. The following section identifies the specific criteria covered in this course.

***NAAB Student Performance Criteria***

12.2 Critical Thinking Skills  
12.3 Graphics Skills  
12.5 Formal Ordering Systems  
12.6 Fundamental Design Skills

12.7 Collaborative Skills  
12.9 Non-Western Traditions  
12.11 Use of Precedents  
12.12 Human Behavior

12.13 Human Diversity  
12.15 Sustainable Design

### Course Outcomes

This studio will produce three artifacts. First, the studio will design an installation art/coffee kiosk for the main level of the HWAC facility. The second piece of work will include a neighborhood development in conjunction with the Northeast Neighborhood Association of Elgin, IL. The third and final piece will include a hypothetical Magnet High School in Ecology for the neighborhood.

### Assessment

The final grade for this course is based on two main factors: **Project Development** and **Project Execution**. **Project Development** simply means that in each studio session, significant progress must be shown in order to receive sufficient marks for that studio session. Studio progress includes advancing the body of work in a timely manner and evidence of significant work outside of the regular class meeting time must be demonstrated (similar to any other academic course). 20 hours per week of focused, intentional work is expected for studio homework in addition to studio time. The second evaluation factor is **Project Execution**. This portion of the project grade includes the depth of ideas pursued, consistency of communication of all media representations, and the degree of clarity and successful argument in terms of verbal and visual communication. All assessment will be judged against the handout on Design Studio, accompanying this syllabus.

The projects in this course are weighted as follows: a cyber café design build project (10%), a neighborhood redevelopment plan (20%), and a school (60%). Refer to the schedule to see the relationship of time to the percentage of the weight of each part of the whole project. The remaining evaluation criteria involve participation in class discussion and critique, and classroom citizenship, civility, and community (10%). **Citizenship** is defined as the inhabitants of a city; **Civility** is defined as liberty restricted only by those laws established for the good of the community; and **Community** is defined as a body of people living in one place or district or country and considered as a whole. The grading distribution follows the University standards found in the Catalogue.

Attendance is required each and every session. The class begins sharply at the scheduled time unless otherwise noted, and will continue each session to the scheduled time. Unexcused absences are not allowed. Any absence from class must be excused prior to class. Excused absences include emergencies and extreme situations beyond your control. All doctors' appointments and similarly important appointments should not be scheduled during this class time. Unexcused absences will negatively affect the final grade. The attendance policy is final.

### Course Bibliography

During the course of the semester, numerous texts and sources will be referred to in lecture. Part of design learning involves reading and studying materials that will affect and influence the students design philosophy. Selected readings will be provided from the following sources:

*Building for Life*, Stephen Kellert, Island Press, 2005, ISBN 1-55963-721-8  
*Sustainable Architecture and Urbanism*, GauzinMuller, Birkhauser, 2002, ISBN 3-7643-6659-1  
*Green Studio Handbook*, Alison Kwok and Walter Grondzik, Elsevier, 2007, ISBN 0-7506-8022-9  
*Community by Design*, Hall and Porterfield, McGraw Hill Publishing, ISBN 0-07-134523-X  
*Design Thinking*, Peter Rowe, MIT Press, ISBN 0-262-68067-0  
*Site Planning*, Kevin Lynch and Gary Hack, MIT Press, ISBN 0-262-12106-9  
*The Nature of Design: Ecology, Culture, and Human Intention*, David Orr, Oxford University Press, 2002, ISBN 0-19-514855-X

#### Web Resources:

Green Globes: [www.greenglobes.com](http://www.greenglobes.com)  
EcoCalculator: [www.athenasmc.ca/tools/ecoCalculator/downloadEcoCalculator.html](http://www.athenasmc.ca/tools/ecoCalculator/downloadEcoCalculator.html)  
US Green Building Council: [www.usgbc.org](http://www.usgbc.org)  
LEED for Neighborhood Development: <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148>  
LEED for New Construction: <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=220>

#### Assorted Journal Articles

**JUDSON UNIVERSITY**  
*Art, Design and Architecture*  
 Department of Architecture

ARC451 Fall 2007  
 "Architectural Design V"

Five Credits  
 1:00-4:50 PM, MWF  
 Professor Keelan P. Kaiser, AIA, NCARB

**SCHEDULE**

WEEK	DATES	TOPIC	ASSIGNMENTS	CLASS FORMAT
1	Week of Aug 27	Cyber Café Design/Build	Materials, Kit of Parts Sketchup Modeling	Studio Lecture/Research Studio Lecture/Preliminary Sketch Reviews
2	Week of Sept 3	Cyber Café Design/Build	Sketchup Visualizations	<b>Final Sketch Presentations, Fri, Sept 7</b>
3	Week of Sept 10	Urban Analysis / Programming Neighborhood Design	Urban Design Community Meeting	Studio Lecture/Research Public Meeting, Studio Lecture/Research Open Studio** September 14 (Fri)
4	Week of Sept 17	Neighborhood Design	Urban Design Design Iteration	Lecture/Research/Studio Studio
5	Week of Sept 24	Neighborhood Design (Homecoming Weekend)	Design Iteration Presentation	Studio Studio
6	Week of Oct 1	Neighborhood Design	Presentation	<b>Final Neighborhood Pres., Mon, Oct 1</b>
7	Week of Oct 8	School Case Study Research Site Analysis Site Design	Research Case Studies Site Design Site Design	Open Studio** October 5 (Fri) Studio Lecture/Research Studio Lecture/Research
8	Week of Oct 15	Schematic Design	Schematic Design Schematic Design	Studio Open Studio** October 19 (Fri)
9	Week of Oct 22	Schematic Design (Fall Break Oct 22 & 23) (Founders Day Oct 26)	Design Iteration Design Iteration Design Iteration	Studio Lecture/Research Studio Studio
10	Week of Oct 29	Schematic Design	Design Iteration Design Iteration	Studio Lecture Open Studio** November 2 (Fri)
11	Week of Nov 5	Schematic Design	Design Iteration Design Iteration	Studio Lecture Open Studio** November 5 (Mon)
12	Week of Nov 12	Schematic Design	Design Iteration Design Iteration	Studio Lecture Studio
13	Week of Nov 19	Schematic Design (Thanksgiving Break Nov 21-23)	Design Iteration Design Iteration	Studio Lecture Studio
14	Week of Nov 26	Documentation/Presentation	Design Iteration	
15	Week of Dec 3	Documentation/Presentation	Presentation	Studio Studio
16	Week of Dec 10	Documentation/Presentation	Presentation	<b>Final Presentations, Mon, Dec 10</b>

\* The schedule is tentative and subject to change.

\*\* Open Studios indicate times that courses will meet without instruction.