Graduate Architectural Design/Thesis I Project

On-line ARC552-941
6-8-2014 rev

School of Architecture | College of Applied Sciences and Arts | Southern Illinois University Carbondale

Online Summer 2014 | 6 Credit Hours | SIU Online URL: http://ctesiu.adobeconnect.com/arc552/

Catalogue Description

ARC552-6 Graduate Architectural Design/Thesis I Online Version

Initial development of individual design thesis project in a studio setting. This fast-track 8-week "cohort-based" studio will consist of a design project or an individual student thesis project as developed in the online ARC 500-3 [Research Methods course]. Approval of thesis project by graduate faculty is required. Prerequisite: ARC 500-3 & 551-6

Studio/Faculty Contact hours

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<tr>
<th>Day</th>
<th>Time</th>
<th>Central Time</th>
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<tbody>
<tr>
<td>Tuesday</td>
<td>6:30 – 9:30pm</td>
<td>6:30 – 9:30pm central time</td>
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<tr>
<td>Thursday</td>
<td>6:30 – 9:30pm</td>
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<tr>
<td>Saturday</td>
<td>1:30 – 3:30pm by appointment</td>
<td>1:30 – 3:30pm central time</td>
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Instructor/Thesis Chair

Robert Swenson, Architect & Heritage Preservation Consultant (Associate Professor Emeritus)
Rswenson@siu.edu or robert.swenson41@gmail.com

This material borrows heavily from a syllabus and course description prepared by Professor Michael Brazley Summer 2014, Professor Jon Davey Summer 2014, Professor Craig Anz in 2009, Walter Wendler in 2012, 2013, and official documents of the School of Architecture and Southern Illinois University

Please make sure to read this whole document and ask questions if anything lacks clarity.

statement of purpose

As an extension of the research components, the purpose of this studio is to develop an architecture that effectively and critically engages ongoing research and its role in architectural and design endeavors. Students will extend foundations for research, basis issues and concepts, methods, and programming to the design of the thesis project. The culmination of previous work on the thesis project will indicate, through an architectural program and subsequent design, the pragmatic understanding of architecture that is generally expected of professional degree graduates and entry-level professionals.

The goal is to have a total architectural project the consciously denotes formal inquiry and critical thinking, connecting one’s creative endeavors within a greater body of knowledge, but also connects the essential reasoning for architectural artifacts. The thesis product will be presented to the online class cohort and committee members at scheduled review times (or at a St Louis, MO location if all members of this section would prefer to present together to each other) where recommendations will be made toward fulfillment of final requirements. The student will prepare for these reviews a defined set of criteria and significant questions to present on-line to their reviewers and cohort members for input.

These series of reviews are intended to foster interaction and co-tutoring, thus building collective and critical knowledge bases, but also to guide effectively through the processes. Class activities will also include on-line lectures and round-table discussions focused around pertinent topics and recommended readings from both the instructor and students. If appropriate, special care will be taken to foster planned and integrative pedagogical interaction with corresponding core seminars. While developing a comprehensive graduate thesis project, you are encouraged to extend your horizons and see the diversity of viewpoints through outside, formal peer-review and possible professional and/or organizational presentations.

course objectives

Upon completion of this course, the student will:

1. Create a strategy for the (Further the) logical development and preparation of their thesis research, programming, project proposals, and subsequent design implementation.
2. Develop a schedule of work that will allow for timely completion of the graphic and written documentation that comprises your thesis project.

3. Critically understand and apply basic standards for research quality, responsibility, judgment, and ethical practice as well as the basic premise of to “do-no-harm,” albeit extended into responsible design practice.

4. Prepare reasoned and responsible informed design initiatives through formal research of allied design disciplines and convey their strategy through effective verbal, graphic, and written skills.

5. Produce an architectural thesis-design project informed by a comprehensive program, from schematic design through the detail development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to Graduate program design criteria.

6. Develop a project and corresponding documentation into thesis format to meet university requirements and NAAB criteria for a professional degree. As such, the work must be comparable (meet or exceed) the architectural master’s thesis work at other peer institutions.

**Methodology**

Desire2Learn will be used throughout the semester in several ways. All assignment and other handouts will be available on the site for your use. You will post your research assignments online, assembling a database for you and your classmates to access. You should be able to engage with anyone in your section at anytime. You will also be expected to upload any and all relevant information you find related to the overall goals of the design thesis project for you classmates to use as well. See Semester Work Requirements and Calendar below.

**Coordination**

This thesis studio will NOT be co-taught, meaning that each studio will operate as a single entity (or section) facilitated by your assigned faculty Thesis Project Chair who is responsible for supervising, educating, and grading. All students in each section will have access to our D2L site. Throughout the course of the semester you will have individual crits and reviews with your faculty Chair individually and/or together with other members of your particular section only. What we expect (or want) you to do is take the advice and suggestions of your outside critics and classmates to formulate your own design decisions. Analyze and understand how they have the potential to affect your project, and make decisions based on what pushed your project most purposefully in the direction of your concept or thesis. Every choice you make has many, many options. It is ultimately up to you to choose the option that you believe is right for your design. We are here to help you explore and understand the potential those options have for your project. . . .

**Studio Space Supplies, Equipment**

This will be a virtual studio with each student in their own respective satellite location, each completing a different and unique thesis design project. Each student is responsible to provide all pertinent materials required to work in studio toward meeting deadlines, reviews, and/or the completion of their respective final projects.

**Attendance/Production Policy**

This section will work independently with their respective faculty and committee members. In order for the studio/course and your own experience to be fully developed, each individual needs to be abreast of the assigned workload. One appointment per week for a progress check will be required of each student.

**Student Conduct**

Please review Chapter 7 Student Conduct Code in the SIU UNDERGRADUATE/GRADUATE CATALOG regarding University policy regarding Acts of Academic Dishonesty. In particular to this course, students are to do their own work. Do not trace, lift, sample, or copy, including electronic copies, of any other’s work unless specifically cleared with your instructor and properly cited/sourced. If there is any question, do not hesitate to ask. Additional NOTE: This class will be conducted in a professional manner and as such will also be considered a ‘zero tolerance’ atmosphere. Any discrimination towards another person or otherwise will be acted upon accordingly.

**Special Concerns**

If there is any problem or concern that you have which might impact your performance in this class, please inform the instructor the first week of class. To be registered for this class, you must satisfy the prerequisites for the class. If this is not the case or you are uncertain, you must contact your instructor, advisor, or Chair immediately. NOTE: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you
have a disability requiring an accommodation, please contact the appropriate campus department involved with services for students with disabilities.

**studio culture policy**  
The Studio Culture Policy in force for this class is posted on the web at:  [http://emarch.architecture.siuc.edu/studio-](http://emarch.architecture.siuc.edu/studio-)

**grading policy**  
Projects are due on the hour and date specified for submittal or presentation. Late projects will be considered for evaluation only with prior approval by the instructor and thesis committee.
- Each student will be working individually and shall be completely responsible for his or her own work.
- Each project will have associated with it a set objectives or expected behavioral outcomes. The purpose of attaching these outcomes to the projects is to insure that a range of awareness and understanding are developed, expanded and tested.
- Areas of interest will form the basis for grading on each project. These criteria are adopted for the NAAB accrediting requirements for professional programs in architecture (listed below)
- All grades for thesis work are Pass/Fail. Students will be assigned a passing grade if they successfully complete the assigned requirements.

**Semester Work Requirements**  
All students in this studio should have developed during the Fall 2013 or Spring 2014 semester(s) the framework for your thesis project. You will be getting advice from your chair (and committee members). Robert Swenson is the instructor of record for Section 941 of this class and is your Chair. The other section instructors (Professors Brazley & Davey) will serve as the other two additional members of your thesis committee. HOWEVER, you are strongly encouraged to develop a relationship with an architect, other design professional, or expert in your project type and focus in YOUR particular city or locale to serve as a fourth member of your thesis committee. You are to make use of this person’s expertise to help guide you into the research and real-life situations needed to develop accuracy and depth to your thesis project.

It is our belief that you have already begun this process and should have already addressed:

1. Thesis Statement
2. Challenges and issues from the building type or project that you’ve identified, including but not limited to physical, social, economic, aesthetic, and cultural implications. (Sustainable Design ???)
3. Precedent Studies
4. A preliminary design program
5. Initiated preliminary site identification and selection criteria
6. Compiled a bibliography representing an understanding of the project type and its parameters.
7. Other NAAB requirements mentioned in ARC551

**First Review Requirements & Presentation Format:** Deliver to your Chair ON or BEFORE the first scheduled “Due Date” presentation of your work.

1. A detailed preliminary architectural program that includes all space requirements, five significant problem statements related to the work completed in the Fall 2013 semester in ARC500, in digital format.
2. A written and graphic site analysis . . . that demonstrates a clear rationale for the selection of the site you have chosen and is accompanied by graphic analysis that identifies key issues that must be addressed in the building design. This material will be presented in digital format.
3. Preliminary building and site plans that are responsive to the preliminary architectural program. These plans should be presented in digital format.
4. Preliminary assessment of appropriate materials, structural systems, HVAC systems, and other material aspects you are contemplating for the project. These should be presented in digital format.

5. Preliminary massing studies: At least five that are responsive to the form giving and order generating requirements and analyses identified above. These massing studies should be presented in digital format at scales appropriate to your project.

6. The name and short resume' of the “Fourth Committee Member’ mentioned above. Submit a short written scenario as to why you selected this person and how and how often you intend to interact with them and include them in your reviews for additional feedback.

Second Review Requirements & Presentation Format: Deliver to your Chair ON or BEFORE the first scheduled “Due Date” presentation of your work.

The requirements for the second presentation will be discussed during the first month of class. The second review will essentially be a preliminary presentation of your entire project, in the format in which you intend to eventually present it.

Third/Final Review Requirements & Presentation Format: Deliver to your Chair ON or BEFORE the first scheduled “Due Date” presentation of your work.

A dry run of the completed work in the final format and with substantial completion of drawings and all supporting documentation to allow for finished development to be complete by the end of the summer session.

Additional Comments: I, and the other section Chairs, have been engaged in such work for a long time, and that gives us the experience to be able to help you schedule your work so that it meets timing and quality requirements that are consistent with your aspirations and our expectations.

The due dates and project requirements are generally consistent with what your committee would expect. Your Chair (or committee members) may require more, less, or different standards for presentation that are acceptable. If you receive prior approval, the requirements can be adjusted to fit the needs of your project. This should be determined before the first week in July.

Calendar

School of Architecture – Summer 2014: The Thesis Studio calendar is intended to provide for the coordination of due dates for design project presentations & reviews, written documents, lectures, and other activities central to the life of the students in our Master of Architecture program. Our collective adherence to it will provide the highest and best educational opportunities for our students by allowing focus and unnecessary conflict in schedules. NOTE: Please refer to the calendar that is set up in D2L as the "official" calendar

Special Notes: Summer classes begin Monday, June 9, 2014
Independence Day Holiday, Friday, July 4
Final Presentation, Friday, Aug 1
Commencement to be held in May and December

All Breaks begin officially at 10:00 p.m. the night before and end at 7:30 a.m. the morning after the respective beginning and ending dates listed, unless otherwise noted.
NAAB STUDENT PERFORMANCE --EDUCATIONAL REALMS & STUDENT PERFORMANCE CRITERIA  (applicable to ARC552)

Understanding—The capacity to classify, compare, summarize, explain and/or interpret information.

Ability—Proficiency in using specific information to accomplish a task, correctly selecting the appropriate information, and accurately applying it to the solution of a specific problem, while also distinguishing the effects of its implementation.

Realm A: Critical Thinking and Representation:

Architects must have the ability to build abstract relationships and understand the impact of ideas based on research and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. This ability includes facility with the wider range of media used to think about architecture including writing, investigative skills, speaking, drawing and model making. Students’ learning aspirations include:

- Being broadly educated.
- Valuing lifelong inquisitiveness.
- Communicating graphically in a range of media.
- Recognizing the assessment of evidence.
- Comprehending people, place, and context.
- Recognizing the disparate needs of client, community and society.

NAAB A.1.  Communication Skills:  "Ability to read, write, speak, and listen effectively"

NAAB A.2.  Design Thinking Skills:  "Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

NAAB A.5.  Investigative Skills:  "Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes."

NAAB A.7.  Use of Precedents:  "Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects."


Realm B: Integrated Building Practices, Technical Skills and Knowledge:

Architects are called upon to comprehend the technical aspects of design, systems and materials, and be able to apply that comprehension to their services. Additionally they must appreciate their role in the implementation of design decisions, and the impact of such decisions on the environment. Students learning aspirations should include:

- Creating building designs with well-integrated systems.
- Comprehending constructability.
- Incorporating life safety systems.
- Integrating accessibility.
- Applying principals of sustainable design.

NAAB B.1.  Pre-Design:  "Ability to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria."

NAAB B.2.  Accessibility:  "Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities."
NAAB B.3. **Sustainability:** "Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthy environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency."

NAAB B.4. **Site Design:** "Ability to respond to site characteristics such as soil, topography, vegetation, and watershed I the development of a project design."

NAAB B.5. **Life-Safety:** "Ability to apply the basic principles of life-safety systems with an emphasis on egress."

NAAB B.6. **Comprehensive Design:** "Ability to produce a comprehensive architectural project that demonstrates each student’s capacity to make design decisions across scales while integrating all SPCs: (See NAAB Website &/or previous course syllabi for full list and content)

NAAB 8B **Environmental Systems**
"Understanding the principles of environmental systems’ design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools."

NAAB 9B **Structural Systems**
"Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems"

NAAB 10B **Building Envelope Systems**
"Understanding of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture, transfer, durability, and energy and material resources."

NAAB 12B **Building Materials and Assemblies**
"Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse."

**Realm C: Leadership and Practice:**

Architects need to manage, advocate, and act legally, ethically and critically for the good of the client, society and the public. This includes collaboration, business, and leadership skills. Students learning aspirations include:

- Knowing societal and professional responsibilities.
- Comprehending the business of building.
- Collaborating and negotiating with clients and consultants in the design process.
- Discerning the diverse roles of architects and those in the related disciplines.
- Integrating community service into the practice of architecture.

**NAAB Items:** There are none specifically listed for ARC552, but thesis level students expected to comprehend, understand, and have the ability to respond to all listed.