

Graduate Architectural Design/Thesis II Project

School of Architecture | College of Applied Sciences and Arts | Southern Illinois University Carbondale
Online Summer 2016 | 6 Credit Hours

Catalogue Description **ARC554-6 Graduate Architectural Design/Thesis I *Online Version***

Continuation of the ARC552 online studio setting began Summer 2016 resulting in the conclusion, presentation, and final approval of the individual design/thesis project in an online studio setting.

Prerequisite Successful completion of ARC 552 or approval of the Head of the Graduate Program

Studio/Faculty Contact hours

Once a week

Other | by appointment

Instructor/ Professor Jon Daniel Davey PhD, AIA
Thesis Chair 618-559-8931 or 618-453-3734 (SIU SoA)
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This material borrows heavily from my ARC552 syllabus and course description revised for the online program from syllabi prepared by Professor Robert Swenson, Professor Michael Brazley, Summer 2014, Professor Jon Davey, Summer 2014, Professor Craig Anz in 2009, Walter Wendler & Steve Turnipseed in 2012, 2013, 2014, and official documents of the School of Architecture and Southern Illinois University

**statement of
purpose**

As an extension of the research components, the purpose of this studio is to complete the development of an architecture that effectively and critically engages ongoing research and its role in architectural and design endeavors. Students will continue to 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 that 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 section cohort and committee members at scheduled review times, where recommendations will be made toward fulfillment of final requirements and formally at the SIU School of Architecture at the end of the semester for "Final Review and Approval" prior to graduation. The student will prepare for these reviews a defined set of criteria and significant questions to present to their cohorts and reviewers and section cohort members for input prior to formal (or informal) presentations.

These reviews are intended to foster interaction and co-tutoring, thus building collective and critical knowledge bases, but also to guide us effectively through the processes. While completing the development of 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 have completed the requirements for graduation, including:

1. Develop an architectural project that is the culmination of the online design studio experience.
2. Apply design principles developed in previous graduate online studios and seminars.
3. Develop the use of innovative and emerging design technology.
4. Apply sustainable design principles in the urban and regional planning process.

5. Develop individual personal architectural goals and interests.
6. Continue to 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.
7. Continue to 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.
8. Produce a final version of your architectural thesis-design project at a "Design Development" level informed by a comprehensive program - from schematic design through the detailed 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.
9. Complete the corresponding written documentation into thesis format to meet university requirements and NAAB criteria for a professional degree.
10. Present for final review and approval by your Thesis Committee.

Methodology

Desire2Learn and AdobeConnect will be used throughout the semester in several ways. Assignments and other handouts will be available on the D2L site for your use. You will post your individual in-progress work online periodically, 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 again NOT be co-taught, meaning that each studio section will operate as a single entity 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 a second comprehensive ARC554 D2L site. Throughout the course of the semester you will have individual crits and reviews on a weekly basis with your faculty Chair individually and/or together with other members of your particular section only. We expect (or want) that you will take the advice and suggestions of your outside critics and classmates to help formulate your own design decisions. Analyze and understand how they have the potential to affect your project, and make your 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 project. We are here to help you explore and understand the potential those options have for your project.

Studio Space Supplies, Equipment

This will continue to 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. Each student is required to present on-campus at the end of the semester for Final Review and Approval by the thesis committee.

student conduct

Please review Chapter 7 Student Conduct Code in the SIU UNDERGRADUATE/GRADUATE CATALOG regarding University policy regarding Acts of Academic Dishonesty - **See the "SIU Carbondale Syllabus Attachment – Fall 2014" provided on our D2L course site and by email attachment.** 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. See the "SIU Carbondale Syllabus Attachment – Fall 2014" provided on our D2L course site and by email attachment.

studio culture policy

The Studio Culture Policy in force for this class is posted on the web at: <http://emarch.architecture.siu.edu/studio->

grading policy

Projects are due on the hour and date specified for submittal or presentation. You are to submit in PDF format to the D2L Dropbox for this course to meet the required deadline AND then to my email account robert.swenson41@gmail.com. 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 (Satisfactory/Unsatisfactory). Students will be assigned a passing/satisfactory grade if they successfully present for Final Review and Approval at the end of the semester..

semester work requirements

All students in this studio section should have developed during the Summer 2014 your thesis project completed to a "Schematic Design" level, including a 30-50% level of completion of the written design/thesis booklet. It is my belief that most of you have successfully addressed:

1. Your individual 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, cultural implications, and issues related to Sustainable Design.
3. Precedent Studies
4. Completed your comprehensive Facility Program (to be an integral part of your written thesis document)
5. Identified, selected, and completed site research.
6. Compiled a bibliography representing an understanding of the project type and its parameters.
7. Submitted Posters and a preliminary written document representing the above work
8. Other NAAB requirements mentioned at the end of this Syllabus

You will continue to 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 still 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 critic/advisor to your project. 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.

We have 16 weeks, including breaks, before you submit your work in its final form digitally on **Monday, Dec 8, 2014**. We will plot and print your final submissions and you will formally present your design thesis project

publically at the School of Architecture on **Thursday, Dec 11** and/or **Friday, Dec 12** prior to a formal commencement ceremony on **Saturday, Dec. 13, 2014**.

Progress Submissions: We will continue to meet individually and together weekly (with one week exception per separate Calendar provided) to monitor progress and update completion status. Student to provide list of items required for completion and graduation with an estimated % complete on each item weekly.

Prior to the final presentation, I will require only ONE progress submission at the beginning of the 14th week (**Monday, Nov 17**) at which time you should be **95% complete** with all your written and graphic work. This will allow me to make any final suggestions and recommendations as you finish your work. I recommend that you submit your work periodically at your own timeframe and schedule when it is approximately 60% complete and 80% complete for my review, comments, and suggestions. You are welcome to present to others in this or another section for their feedback and comments at those times as well.

Final Submission: Your final submission will include a complete "written thesis document" and "8 - 36" high by 48" long posters" with titles that together fully describe and illustrate your design thesis project. You will personally present your design thesis project to a public audience at the SIU School of Architecture for final review and approval prior to graduation.

calendar/schedule

School of Architecture – Fall 2014: The Fall Semester Thesis Studio Calendar is a separate document on D2L and as an email attachment. It 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: Fall classes begin Monday, August 22, 2016
Labor Day Holiday - Monday, Sept 5, 2016
Fall Break – Sat, Oct 8 thru Tues, Oct 11
Veterans' Day Holiday – Friday, Nov 11, 2016
Thanksgiving Break – Wed, Nov 23 thru Sunday Nov 27, 2016
**Final Presentation at SoA Carbondale, Thurs,
Dec 15 & Fri, Dec 16, 2016**
**Commencement to be held December 17, 2016 at
SIU Carbondale campus**

All Breaks begin officially at 10:00 p.m. the night before and end at 7:30 a.m. the morning after the respective noted beginning and ending dates listed, unless otherwise.

NAAB Student Performance Criteria

NAAB 2009 Student Performance: Educational Realms & Student Performance Criteria

The NAAB requires that an "accredited degree program must ensure that each graduate possesses the knowledge and skills defined by the criteria set out below. The knowledge and skills are the minimum for meeting the demands of an internship leading to registration for practice."

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.

The National Architecture Accreditation Board (NAAB) 2009 Student Performance Criteria are based on three "Realms" of accomplishment:

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.

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.

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.

Student Performance Criteria specific to ARC554 Online Graduate Architecture Thesis Studio II

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| NAAB A.2. | Design Thinking Skills: <i>"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."</i> |
| NAAB A.4. | Technical Documentation: <i>"Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process."</i> |
| NAAB A.5. | Investigative Skills: <i>"Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes."</i> |
| NAAB A.8. | Ordering Systems: <i>"Understanding of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design."</i> |
| NAAB A.9. | Historical Traditions & Global Cultures: <i>"Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors."</i> |
| NAAB B.2. | Accessibility: <i>"Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities."</i> |

- NAAB B.3. Sustainability:** *"Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful 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.9. 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"*

Additional Student Performance Criteria expected at this point in your academic career:

- NAAB A.1. Communication Skills:** *"Ability to read, write, speak, and listen effectively"*
- 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."*
- NAAB A.11. Applied Research:** *"Understanding the role of applied research in determining function, form, and systems, and their impact on human conditions and behavior."*
- 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.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 B.8. 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 B.10. 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 B.11. Building Service Systems:** *"Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems."*
- NAAB B.12. 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."*
- NAAB C.1. Collaboration:** *"Ability to work in collaboration with others and in multi-disciplinary teams to successfully complete design projects."*
- NAAB C.2. Human Behavior:** *"Understanding of the relationship between human behavior and the natural environment, and the design of the built environment."*
- NAAB C.3. Client Role in Architecture:** *"Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains."*

- NAAB C.4. Project Management:** *"Understanding of the methods of competing for commissions, selecting consultants, and assembling teams, and recommending project delivery methods."*
- NAAB C.5. Practice Management:** *"Understanding of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice."*
- NAAB C.6. Leadership:** *"Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities."*
- NAAB C.7. Legal Responsibilities:** *"Understanding of the architect's responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws."*
- NAAB C.8. Ethics and Professional Judgment:** *"Understanding of the ethical issues involved in the formation of professional judgment regarding social, political, and cultural issues in architectural design and practice."*
- NAAB C.9. Community and Social Responsibility:** *"Understanding of the architect's responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors."*