ARC554 Graduate Architectural Design Studio/Thesis II

School of Architecture | College of Applied Sciences and Arts | Southern Illinois University Carbondale
Summer 2014 | 6 Credit Hours
MTWR | 8:00 – 12:50

faculty
Dr. Walter Wendler
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h: By Appointment Only
p: 453.2513
e: wendler@siu.edu

Dr. Walter Wendler
Steven Turnipseed
o: 401 quigley
h: TWR 2:00 – 4:00
Other by appointment
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catalog description
A continuation of ARC 552 resulting in the conclusion, presentation and final approval of the individual design/thesis project in a studio setting.

prequisite
Successful completion of ARC552 or approval of the Head of the Graduate Program.

course objectives
Upon completion of this course, the student will have completed the requirements for graduation, including:

1. Develop an architectural project which is the culmination of the design studio experience
2. Apply design principles developed in previous graduate studios and seminars
3. Develop the use of innovative and emerging design technology
4. Apply sustainable design principles in the urban and regional planning design process
5. Develop individual personal architectural goals and interests
6. Present for final review and approval by your Thesis Committee

NAAB 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.”

Note: The information presented below is from NAAB document available at:

• Understanding — means the assimilation and comprehension of information without necessarily being able to see its full implication.

• Ability — means the skill in using specific information to accomplish a task, in correctly selecting the appropriate information, and in applying it to the solution of a specific problem.

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 include:

• Creating building designs with well-integrated systems
• Comprehending constructability
• Incorporating life safety systems
• Integrating accessibility
• Applying principles 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. Student 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 related disciplines
• Integrating community service

**Student Performance Criteria specific to ARC554 Graduate Architecture Thesis Studio II:**

**A.4. Technical Documentation**

*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.

**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 the following SPCs:

**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.

**A.4. Technical Documentation** *Ability* to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.

**A.5. Investigative Skills** *Ability* to gather, assess, record, apply, and comparatively valuate relevant information within architectural coursework and design processes.
A.8. Ordering Systems  **Understanding** of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

A.9. Historical Traditions & Global Cultures  **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

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.

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.

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

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

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:

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.

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.

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.

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.

C. 1. Collaboration:  **Ability** to work in collaboration with others and in multi-disciplinary teams to successfully complete design projects.

C. 2. Human Behavior:  **Understanding** of the relationship between human behavior, the natural environment and the design of the built environment.

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.

C. 4. Project Management:  **Understanding** of the methods for competing for commissions,
selecting consultants and assembling teams, and recommending project delivery methods.

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.

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.

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.

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.

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

topical outline Not Applicable

grading criteria Not Applicable

studio policy Students shall work in-studio at all times class is scheduled OR work out a regular weekly meeting schedule with the faculty. All students shall be in-studio together at least once/week for at least one hour on a regular basis (to be determined at first class meeting) for announcements and important discussions.

Student to meet with faculty on regular basis (minimum of once / week) to update completion status. Student to provide list of items required for completion and graduation with an estimated % complete on each item.

please see our SIUC studio culture policy:
http://architecturalstudies.architecture.siuc.edu/studio-culture-policy/

Quigley Hall Emergency Response Procedures

Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings in Quigley Hall and elsewhere on campus, available on the BERT’s website at www.bert.siu.edu, Department of Public Safety’s website www.dps.siu.edu (disaster drop down) and in the Emergency Response Guidelines pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.

If an evacuation of Quigley Hall is required during an emergency, ALL School of Architecture students, faculty, and staff (from all three programs) are to gather ASAP after exiting in the grassed area east of the Quigley Courtyard and covered walkway area to determine if there are people unaccounted for at that particular time. There are four SoA faculty members that are part of the SIUC Quigley Hall BERT Team (Brazley, Frisch, Studek, and Swenson) who will be facilitating the necessary emergency procedures. There are BERT Posters located in numerous public areas throughout Quigley with Quigley Team emergency phone numbers.
Do not hesitate to call 911 if you have any sense of emergency and there isn’t a faculty or staff person available to immediately assist – There are highly qualified and prepared professionals to make a response decision and to give you advice over the phone.

QUIGLEY HALL EMERGENCY RESPONSE MEETING AREAS

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>AREA</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>Food and Nutrition</td>
<td>1</td>
<td>Woody Hall grassed area West of Quigley Main Entry</td>
</tr>
<tr>
<td>Child Development Laboratory</td>
<td>2</td>
<td>North Side Quigley beyond Fenced Area</td>
</tr>
<tr>
<td>Social Work</td>
<td>3</td>
<td>Grassed Area NE of Loading Dock and Auditorium</td>
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<tr>
<td>School of Architecture</td>
<td>4</td>
<td>Grassed Area East of Quigley Patio and the Covered Walkway</td>
</tr>
<tr>
<td>College of Education - Pre-School</td>
<td>5</td>
<td>Grassed Walkways Area beyond South Entry</td>
</tr>
<tr>
<td>General Classrooms &amp; Auditorium</td>
<td>1, 3, &amp; 4</td>
<td>Please instruct those outside faculty, students, and visitors during an emergency</td>
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</tbody>
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