

Clemson University School of Architecture
College of Architecture, Art and Humanities

ARCH 896: ARCHITECTURE+ HEALTH GRADUATE ARCHITECTURE STUDIO

ARCH 896 (6 credits [6.0])
Monday, Wednesday, Friday: 1:30pm – 5:30 pm

Professor Stephen Verderber

Course Goals and Objectives

The intention of the THE A+H 896 Design Studio is to be a critical step in the design student's development of design awareness, understanding, and ability. This studio will prepare the student for an expansion of these principles to prepare for penultimate design studio experiences.

While the major portion of the studio time will be spent in the patient search for solutions to architectural design problems, an important component of the work will involve looking into the nature of Architecture, to seek a deeper meaning by way of investigation and criticism. The balance between theoretical and practical aspects of our task will encourage the student to become more thoughtful in their day-to-day work. The student will explore theoretical design issues as well as comprehensive problem solving exercises, addressing a wide range of architectural issues from broadest contextual elements to more detailed technological components.

The role of the faculty is to assist the student in constructing a conceptual framework for design within which to develop their design decisions. The question becomes, what do you value in architecture, and why? The objectives of this course, then, are to explore, evaluate, interpret and communicate the design process, to develop critical thinking, concept generation, transformation and development as a basis for architecture, and to explore the inter-relationship between premise, process, and product.

Course Content

The ARCH 896 design studio projects will be structured to enable the student to comprehend the integral relationship between history and theory; program and site; design methods and communication; and building technology and environmental sustainability. Individual instructors will emphasize different knowledge areas among these based on their own experiences, the specifics of the design problem at hand, and the interests and abilities of individual students.

The ARCH 896 design studio is set up as a workshop where a variety of workshops are undertaken in graphic development, digital display, and 3-D modeling. The student's "design process" is assumed to be at the intermediate stage where analysis, synthesis, alternative design selection, and scheme development are thoroughly researched and communicated. In presenting projects of scope and complexity appropriate to this level of education, this course continues to develop these skills and knowledge areas, with a new emphasis on urban design principles; building technology, structure, and systems; conceptual sophistication; and graphic and communicative power.

Arch 896 A+H Graduate Design Studio addresses the following NAAB criteria:

Speaking and Writing Skills: Ability to read, write, listen, and speak effectively.

Critical 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 those conclusions against relevant criteria and standards. Student oral presentations of projects will be made to the faculty.

Graphic Skills: Understanding the use of appropriate representational media, including freehand drawing and computer technology, to convey essential formal elements at each stage of the programming and design process. Graphic skills area emphasized in each project and in each presentation.

Research Skills: Ability to gather, assess, record, and apply relevant information impacting architectural coursework. Each project will begin with a research phase.

Formal Ordering Systems: Understanding of the fundamentals of visual perception and the principles and systems of order that inform two and three-dimensional design, architectural composition, and urban design.

Fundamental Design Skills: Understanding the use of basic architectural principles in site development, building design and interior spaces.

Use of Precedents: Understanding the use of relevant precedents in architecture and urban design projects. Precedents for each project are investigated carefully before any design work is begun.

Life Safety: Understanding of the life-safety systems with an emphasis on ingress and egress.

Studio Culture

Design problems are sometimes called “wicked problems” because they involved the interaction of multiple and sometimes conflicting variables, and never have easy, definitive, or clear-cut solutions. Some solutions, however, are better than others, and the better solutions are inevitably the product of many hours of thought, experimentation, trial and error, leveraging of experience, and design development.

With this in mind, it is expected that the studio meeting times—Monday, Wednesday, Friday, 1:30 – 5:30 pm—are primarily intended to be a time to present to and discuss with studio faculty work that was already developed outside of meeting hours. It is in the nature of design problems that architectural students, like professional architects, spend days, nights, and weekends—and, for particularly complex projects and ideas, sometimes years—developing design concepts, skills, techniques, and responses. Studio time should therefore only be used for work on, and discussion or presentation of studio projects; it is not a time for purchasing supplies, or unrelated personal or academic work.

As a policy, attendance during studio hours is mandatory for the duration; attendance is observed at both the beginning and at the end of the studio period. Unexcused absences are not acceptable; students should therefore inform their studio instructor prior to being temporarily away or absent. Per College policy, two or more unexcused absences will result in a lower final course grade or failure of the course. See Attendance policy below.

Architecture students are fortunate among university students to have a personal workspace. Studio faculty recognize that the studios are cramped, but hope that students will make the space a useful, comfortable, and productive workplace for themselves. Consider bringing your own chair or under-desk storage (lock them to your desk), etc. You rent this space with your tuition dollars—use it and get the most out of it. (That being said, in the interest of limited space and due to fire codes, large sofas, beds, and other obstructions are not allowed. Altering or attaching structures to the building is also not permitted.)

Other studio space issues naturally involve being respectful of others at all times. To preserve your studio space as a productive work environment for all, keep unnecessary noise to a minimum; do not broadcast music or video—use headphones; and keep mobile phone conversations short and quiet, or take them

outside. In the interest of cleanliness, clean up scraps and recycle what you can. Alert faculty if building maintenance staff are adequately emptying waste and recycling containers. In the interest of healthy air quality, keep fan coil units free and clear at all times. Also, no spray painting or painting with other substances that produce fumes, burning, blow torching, etc. is permitted in studio. Use designated spray booths or work outside. For your health and the environment's, use low or no VOC (volatile organic compounds) paints.

Desk crits, pin ups, and reviews are the essence of studio education. All students should be prepared for a desk crit at the start of the studio session, with new work prepared before studio. Generally speaking, digitally developed work for review in desk crits should be on paper; only work being prepared for final electronic display should be presented on the computer monitor. This does not include essential two-dimensional architectural drawings—plans, sections, and elevations—which are meant to be presented in two-dimensions, on paper, and to scale. Although we would all like to minimize the waste of paper, architecture is a visual enterprise that demands a certain amount of paper. That being said, the architectural student must accept the fact and expense of printing architectural drawings—and printing them at a scale that is appropriate and visible in the various review formats (i.e., a desk crit drawing, viewed at the drawing board, does not need to be as large as the presentation drawing viewed in a review from 8' away).

Studio is an essential and unique part of the history and tradition of architectural education. Indeed, the best professional offices seek to maintain the energy and stimulation of the best academic studios. The best architectural practices recognize that positive studio culture—in university and in practice—fosters superlative project efforts. With this in mind, be mature and efficient in your consideration and use of the twelve (12) hours allocated for studio per week, and make good use of your time and talents.

Desk Crits

Critiques at the desk are the essential format for architectural education and project development. They are the means by which faculty and student discuss and develop a project together. This is a two-way communication, and is only made possible through the student's responsibility to be prepared with drawings, models, ideas, and questions for discussion each day of studio. Without this commitment on the part of the student, dialogue with faculty is nearly impossible and will not occur. In return for your preparedness, the faculty will give encouragement and thoughtful criticism, ask questions and attempt to understand and clarify your ideas, and make recommendations as to relevant references for your further exploration. If no effort has been made to produce any work or research any relevant ideas by the student between critiques, project development will not occur, and poor or failure work will likely result.

Pin Ups and Reviews

As discussed above, pin ups, interim reviews, and final reviews are essential to studio education. These events are comparable to quizzes, midterms, and final exams in other courses. They are also comparable to work in professional practice: pin ups are similar to discussions among colleagues and employees in the architectural office; interim reviews are similar to informal meetings with project partners and clients; and final reviews are similar to make-or-break presentations with clients, which determine whether you get the job or not.

In preparation for this important part of professional practice, students should treat all presentations with the utmost seriousness. This includes having completed the required work; being prepared to present on time (anticipating problems with printing documents); dressing professionally; presenting a professional demeanor; presenting documents appropriate in scale and content for the type of presentation; and being prepared to coherently describe and discuss the presented work. In addition to having excellent design work, all of these conditions must be met to merit an A grade for a review.

As a sign of respect to their fellow students, faculty, and chosen profession, students are also expected to remain in attendance at all reviews for their duration. Presentations are an important learning opportunity.

Reviews are a unique to the architectural experience and education; they are an important time to learn the unwritten and unspoken expectations of architecture thinking and culture.

Electronic Communication

Email, Blackboard, and other forms of electronic communication are essential means of communication of assignments, feedback, and other communication essential to coursework. The student should not assume that paper or hard copies of assignments will be handed out. It is the responsibility of the student to regularly check email, Blackboard, etc. for assignments, feedback, and other communication from faculty. In the event of individual technical problems with personal computers, email accounts, software, etc., the student is expected to inquire about assignments from their classmates or contact the studio instructor by other means. The Professor in ARCH 896 is available by email for questions and concerns. However, please treat email communication like professional, business communication. Although email is an easy and informal means of communication today, standards of professional communication still apply with faculty, employers, business colleagues, etc.

Journals, Portfolios, and Documentation of Design Work

It is essential for architectural students, like architectural professionals, to thoroughly document and reproduce their work. It is the nature of architectural design work that reproduced images of work are critical to presentation and publicity. Reproduction creates back ups of drawings and physical models that may eventually be lost or damaged. Moreover, because the designer can control the presentation and view of the object, good photographs of models are often better than the real thing.

The documentation of design work is also an important record of the work of a studio and the work of a school of architecture at large. Students are therefore required to document all studio work in a manner and format specified by the instructor and school. Proper documentation does not include only images. It also includes concise written descriptions of the design problem; a basic description of the design proposal or solution; project goals and design intentions; and techniques, methods, or approaches.

Work documented in this manner will make the creation and maintenance of a portfolio a much easier task. A portfolio, whether electronic or physical, is a collection of professionally presented design work. It is the essential artifact that communicates the designer's abilities and experiences. It is almost always requested as part of the application process by graduate schools and prospective employers. As compared to the portfolio meant for public review, the journal or sketchbook is a way that architects since ancient times have recorded their sketches, diagrams, design ideas, and other observations. The journal is an excellent place to keep sketches, which is also an excellent way to develop drawing skills, and to develop design ideas. Because they capture the essence of the design idea, sketches are often the most powerful design drawing, and it is often useful to present them in presentations and portfolios.

Digital Technology and Media

The ARCH 896 student is expected to be fully familiar with and skilled in the digital hardware and software (programs, applications). The student may also be expected to learn new hardware and software in this and subsequent semesters. Knowledge of and skill with digital technology is highly valued today in academia and professional practice—students will make themselves more valuable to future employees and create additional future opportunities for themselves by becoming skilled in industry-standard and emerging digital tools.

At the same time, digital technology is of course prone to technical problems. The student is expected to be aware of the possibility of technical problems and to plan accordingly. If dependent on electronic printing, for example, the architectural student must be aware of possible technical problems, wait or lead times, and alternate printing options.

University Attendance Policy

Graduate level college work proceeds at such a pace that regular attendance is necessary for each student to obtain maximum benefits for instruction. Regular and punctual attendance at all class and studio sessions is a student obligation, and each student is responsible for all the work, including tests and written work, in all class and studio sessions. No right or privilege exists that permits a student to be absent from any given number of class or studio sessions except as stated in the syllabus for this course. At the same time, it is obvious that at times students have valid reasons for missing classes. The faculty will be reasonable in the demands they place on students.

If you plan to be away from the studio and are working on project related matters, first notify your studio critic to discuss the nature of the absence. Three unexcused absences will result in being dropped from the class. An unexcused absence is defined at any time you fail to first notify your studio critic as to the nature of your absence prior to missing the class, or immediately after if the circumstances dictate that prior notification is impossible. After that time, your final semester grade will be lowered by one-half letter grade (5 points) for each additional absence in studio.

Academic Integrity

As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a "high seminary of learning." Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

Although the issue of plagiarism is more commonly associated with written assignments, issues of plagiarism also apply in design work. Plagiarism "includes the intentional or unintentional copying of language, structure, or ideas of another and attributing the work to one's own efforts." In written work, plagiarism is considered the failure to acknowledge references and sources. Similarly, in studio work, two examples of plagiarism are the unacknowledged use or abuse of precedents, and the reproduction and use of images without acknowledging their sources. In professional practice, architectural designs and images are protected by copyright laws. In "the real world," copyright violation is a crime. By the same token, in university plagiarism and may result in a failing grade and possible disciplinary action. For more information about what constitutes plagiarism, see <http://www.clemson.edu/ugs/integrityplagiarism.htm> and <http://www.grad.clemson.edu/plagiarism.php>.

System of Evaluation: Premise, Process, Participation, Product, Presentation, and Portfolio

The previous sections outline many of the expectations of student performance for excellent work. Overall, the criteria for evaluation will take into account the student's total efforts and participation in the studio and the student's work. In design work and in studio at large, premise, process, participation, product, presentation, and portfolio (documentation) will be assessed for high quality of work and effort. The insight, originality and innovation of an idea, your diligence in questioning and exploring, your effective communication skills, and the care and craftsmanship of your continual efforts all count in the ultimate evaluation of your work.

The ARCH 896 studio exercises will require the student to communicate their proposals in four interrelated formats:

(1) written descriptive narrative; (2) graphic imagining; (3) modeling; and (4) verbalizing. Studio exercises may focus on one or more of the communication techniques. Studio products will include sketches, diagrams, sketch models, traditional architectural drawings, perspective drawings, digital models and drawings, final

models, presentation boards, portfolios, etc. Design drawing and study modeling will be regularly used as generative tools in the design process rather than for purposes of presentation only. Combined use of traditional parallel bar drafting and digital design development is recommended; over-reliance on digital drawing results in a reduced set of skills.

As discussed above, pin ups, interim reviews, and final reviews are comparable to quizzes and exams. Attendance at all reviews is required and students are expected to be pinned up and ready to present their work for evaluation at the appointed review time. Late or incomplete projects are not acceptable. Missing a review or failure to present will result in an immediate failing grade. If a student's work is grossly incomplete or of such poor quality the faculty may also deny the student a review, and an appropriate grade will be issued at that time.

Criteria for the review of design work include:

1. UNDERSTANDING (Premise, Idea). The student understands the issues at hand as described in the project statement and the proposed solution.
2. DEVELOPMENT (Process, Work). The student pursues diligent and continual exploration and refinement of design ideas and concepts evolving from the abstract cognitive phase into a more complex and concrete phase. Precedents in architecture are a critical component of this phase. Responsiveness to criticism and suggestions from faculty and outside reviewers is also essential to progress and project development.
3. CRAFTSMANSHIP (Skill, Product, Result). The student is expected to show care, interest, commitment, and skill in developing and presenting work. (Clients do not trust sloppy architects!)

Evaluation of design work is subject to qualitative and quantitative standards. The following guidelines will apply in the determination of the success of individual and overall student performance:

Excellent (A+99, A95, A-90). This is outstanding work. Innovation and imagination have been demonstrated in the creation of the work and a significant depth of understanding is evident in the student's interpretation of the project requirements and focus. The full potential of the project has been explored, developed, and communicated with great care and consideration.

Above Average (B+89, B85, B-80). This is good work. The student has exceeded all requirements of the project, and has shown more than adequate understanding of its intent and focus. The work demonstrates a thorough-going exploration, development, and execution, including good craftsmanship.

Average. (C+79, C75, C-70). This is mediocre work. All the minimum requirements of the project have been met. The work lacks depth of understanding and development. The overall product exhibits little imagination or innovation, and does not provoke comment.

Below Average (D+69, D65, D-60). This is poor work. The work has not even met minimum requirements. It is extremely weak and lacks depth, understanding, and imagination. The care and craftsmanship of the work is inadequate and demonstrates a low level of skill.

Failure (59 and below). This is unacceptable work. The work shows no interest or any attempt to confront the issues presented. The work is incomplete, undeveloped, unimaginative, uninspired, poorly crafted, and demonstrates little or no understanding.

Incomplete (I). This is incomplete work. An I can only be given to a student for work that is incomplete due to dire and uncontrollable circumstance(s) that have strictly prohibited the work from being completed. Any situation responsible for consideration of granting an I must be fully documented by the student and approved by the instructor. Only then will the grade of I be given. Make up of the incomplete work must be done in accordance with University regulations.

Each section faculty member reserves the right to alter the evaluation criteria along with their attendant values. Any changes to the evaluation system will be communicated to students verbally or in writing prior to any review or grading situation.

Feedback on Course Assignments and Progress

Students will receive feedback on assignments that indicates the general level of their work as compared to their peers. In order to improve their course work, students are encouraged to make an appointment with the instructor to discuss the evaluation of their work in detail (while noting that simply discussing improvement alone will not improve the quality of course work). Students may also request an update on their standing cumulative grade and progress in the course at any time and will receive a timely reply.

Resources

Architectural designers need content and purpose for their designs. Like a writer, filmmaker, or other artist, they need to purposefully communicate something meaningful. This separates architects from most engineers. With this in mind, architectural students must bring something to the table as designers. To be successful, they must be interested citizens of the world. They must be story-tellers who understand the difference between autobiography and narratives of universal significance. And they must be active participants in their own education. Along with your studio critics, consider the entire College faculty as well as the University at large as a resource base. Take advantage of it whenever possible. Keep informed of and attend lectures and events of particular relevance throughout the year; there you may encounter models for work and practice that you may choose to follow or not follow. Other resources of note include the CAF Lecture Series, the School of Architecture Library (particularly faculty reserve shelves), and various travel opportunities. The faculty encourage the students to subscribe to *Architectural Record*, www.architecturalrecord.com, the primary publication of the U.S. architectural profession (it has a student rate), and to be aware of the best international publications, which provide a window into architectural practice and developments around the world.

Disability Access

It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities. Students are encouraged to contact Student Disability Services to discuss their individual needs for accommodation.

Other University Policies

All other University policies apply in this course. Please refer to your student handbook.

Amendments

Any necessary amendments to the information provided in this syllabus or in any course documents will be announced, emailed, and/or posted in a timely manner. All amendments will be in force effective the date they are announced in class and/or distributed by email. It is the responsibility of the student to attend class and to read course-related email where important course-related information may be communicated.

Emergency Procedures

University emergency procedures have recently been updated. Please take the time to familiarize yourself with them.