

ARCH 5204 / 6050 / 6306 - Techniques in Design Thinking: An Unpacking of Design Algorithms

Spring 2020 Course Description

University of North Carolina at Charlotte, School of Architecture

Instructor: Nicholas Ault

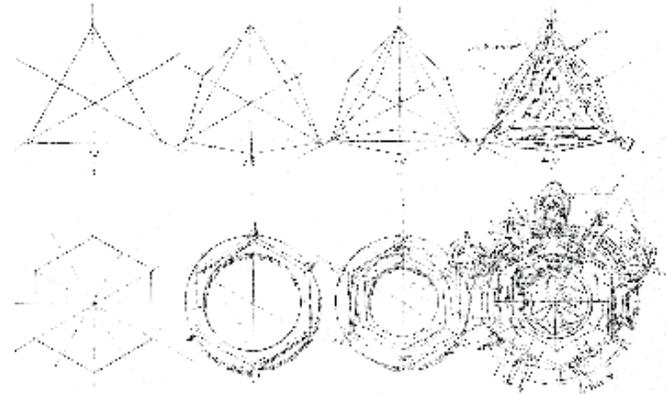
3 Credit Hours: T 6:00 – 9:00 pm

Office Hours: By Appointment Only

*'A proper building grows naturally, logically, and poetically
out of all its conditions'*

Louis Sullivan

PREMISE This course seeks to investigate the tools and methodologies of the architects + designers that have come before. Prior to the rise of digital tools - and the modularization of construction - design was a discipline that was based on a continually evolving process. A process predominantly focused on proportion, geometric relationships, structural statics, logic and rigorous processes. In this course we will seek to explore some of these methodologies and to reinterpret them with contemporary tools in an effort to develop an adapted methodology to underpin contemporary design techniques.



OBJECTIVE The goal of this course is to explore the processes and procedures that have laid the foundation for the aesthetic declarations, trends and methodologies for creating architecture over the past century. These studies will unpack a variety of 'historical' design algorithms in order to develop a functional understanding of each and update these algorithms to align with contemporary tools and techniques that will enable us the more fully understand how past modalities can provide opportunity as design procedures today.

METHOD This course will feature both written and design based components. Students will select one or several architect(s), architectural works or process as a focus for research and will venture to understand and find applications for these outmoded design techniques utilizing contemporary technology in order to modernize a design thought or process that may have been lost to time. These investigation will be manifest in a variety of manners including video, drawing(s), physical model, complex fabrications etc. A research document that catalogues the process of generation, technique of study and potential applications will be developed alongside the research. (Quality projects may be selected to be submitted to a regional or national academic conference.)

RESEARCH Research is a critical element of the semester and the utilization of a diverse range of information will be critical to your success - this information does not come exclusively from the internet (surprise!). You will be required to scour books, periodicals, firm websites etc. for real, tangible information. For assistance with research, students are encouraged to contact the Arts and Architecture Liaison Librarian, Jenna Rinalducci to ask questions via email (jrinaldu) or to make an appointment to talk with her.

ATTENDANCE In order to fully benefit from and participate in this course, attendance is required. More than two (2) unexcused absences will lead to an automatic lowering of a student's grade by a full letter grade (10%) and may constitute grounds for failure of this course. Each subsequent absence will also result in the reduction of the final grade by a full letter grade (10%). Full attendance for each class day is required arriving late or leaving early will be counted as an absence unless you have received confirmation from me prior to being tardy. Documentation of excused absences must be submitted to the Professor in writing within seven (7) days of the absence and show evidence of the medical or family emergency, as outlined by university policy. When possible, notify your instructor as early as possible in advance of a potential absence. You will be notified of any / all documented absences by me via email to formalize the absence.

Failure to attend a review will result in the immediate reduction of a full letter grade (10%) and the student

will be responsible for orchestrating a review outside of studio time. Should the student not arrange a review for a missed review within seven calendar days of the original review a zero will be assessed for this portion of the semester. Failure to attend / present at the Final Review will result in immediate failure of the course unless severe illness or extreme hardship is presented to the instructor before hand.

Late work will not be accepted, and will not receive credit. If a student's work is grossly incomplete or of such poor quality the faculty may deny the student a review, and an appropriate grade will be issued at that time.

Similarly, whenever it is necessary for your instructor to communicate with you outside of class-time, whether collectively or individually, it will be via email. These notices might be regarding schedule changes, additional readings, information pertinent to your assignments, etc. As per University policy, the instructor will use your UNCC email address, and students are responsible for checking their UNCC email, as well as web-based sites for the course, on a DAILY basis.

EVALUATION

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 nearly any architecture course, premise, process, participation, product, presentation, and documentation will be assessed for 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.

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:

A – Exemplary (90.000+)

- The 'A' project sustains the quality of the best possible, publishable example in all aspects.
- 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.

B - Above Average (80.000+)

- General excellence and sustained improvement with occasional superior achievement.
- The 'B' project will exhibit some superior aspects while meeting all other requirements at a high level as well.
- 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-ongoing exploration, development, and execution, including good craftsmanship.

C - Average (70.000)

- All work completed competently and on time, all classes attended, and a general improvement in performance.
- The 'C' project is complete and meets all requirements competently and on time.
- 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.

D - Below Average (60.000+)

- Lack of reasonable craft, or inattention to the work, or unresponsiveness to advice, or a lack of development.
- The 'D' project meets only some requirements competently and on time.
- 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.

F - Failure (59.999 and below)

- Consistent inattention to deadlines or the development of the project, late or incomplete work, poor attitude, or insufficient improvement.
- Tardy, poorly attended or underdeveloped projects risk failure at the discretion of the instructor.
- 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.
- Specific guidelines and evaluation criteria for each grade component will be provided in advance of due dates.

PROJECTS Final grades for all sections will be calculated as follows (subject to change notification):

Project 1: Reading Annotations	15%
Project 2: Dissecting a Design	10%
Project 3 - Part 1: Sullivan: Unpacking + Reconstituting	20%
Project 3 - Part 2: Creating Sullivan	20%
Discussion Lead	25%
Class Participation	10%

Students will receive a numerically calculated grade sheet at the end of each project of the semester, with the exception of those that will be cumulative over the course of the semester

POLICIES All courses in the CoA+A are governed by the rules and regulations of UNC Charlotte as stated in the University Undergraduate and Graduate Catalogs. For more information about these policies, please refer to the appropriate catalog, which can be found online at: <http://catalog.uncc.edu/>.

Academic Integrity: All written and graphic submittals, in-class presentations, and other academic tasks should be your individual and original work unless specifically noted as group projects. No cheating. No plagiarism. It is assumed that you are aware of and will comply with the spirit and specifics of the UNC Charlotte Code of Student Academic Integrity, which is available online at: <http://www.legal.uncc.edu/policies/ps-105.html>.

Disability: If you have a diagnosed disability which influences your ability to learn or have your work assessed in the classroom, all efforts will be made to accommodate your needs. Please provide a copy of your Letter of Accommodation from the UNC Charlotte Office of Disability Services by the end of the second week of classes. Their office is located in 230 Fretwell and more information is available online at: <http://www.ds.uncc.edu/>. All information about your disability and accommodations will remain confidential.

Please see the instructor if you are interested in being an official scribe (note taker) for this course. Your notes will be made available to others in the class with special needs (including students for whom English is a second language and/or students with learning disabilities).

Electronics & Equipment: Being fully present in studio also means that cell phones are switched off and computer usage is limited to studio work during studio hours. All portable devices, including but not limited to laptops, tablets, telephones, mp3 players, et cetera, are forbidden in group discussions and reviews, except when allowed by an instructor for note-taking or other pedagogical purposes. Students who bring devices that disturb the class will be asked to leave and will be assessed an unexcused absence. Zero tolerance.

All students are required to abide by the UNC Charlotte policy on Responsible Use of University Computing and Electronic Communication Resources, which can be found online at: <http://www.legal.uncc.edu/policies/ps-66.html>. Remember that harassment, as defined in the UNC Charlotte Sexual Harassment Policy, is prohibited, even when carried out through computers or other electronic communications systems, including course-based chat rooms or message boards.

Because of the collaborative environment of enquiry that is architectural education, you may well learn as much from your peers as you do from your professors. The culture is enriched and sustained by your positive contribution. And because student and instructor alike share responsibility for the collective culture of the studio, all participants are expected to enhance its intellectual life by attending to the following:

Presence: The studio is intended as the primary site for production of work: students who work in studio benefit from the collective presence of their peers, and will out-perform students who attempt to complete work elsewhere. It is not recommended that students use studio time for gathering materials, data, equipment, etc., unless approved by the studio instructor. Presence in studio also means much more than mere physical proximity to your desk during scheduled class time. You are expected to be fully present intellectually and emotionally for the duration of studio as well, and you are urged to make the most of this time each session. The studio is a community: respect one another's need to work at all hours. Idle conversation and horseplay are distractions, and should not take place within the studio.

Pro-active participation: All students should be actively involved in all discussions, pin-ups, and reviews, as well as meet deadlines, schedules and targeted project completion. You need to take risks and be responsible for your project. The work is yours. Visible progress is expected of students between and during each class session, and forms the basis for availability of individual critique. No work = no feedback. Time management skills are of the utmost importance. Regularly ask yourselves how to best make use of your time in any given instance.

Respectful Interaction: All perspectives and opinions are welcomed and will be respected in this classroom or studio, as long as they are presented in manner that is respectful. Intolerance will not be tolerated. Be mindful of your conduct when engaged in experiences and discourses with those who differ from you in appearance, race, ethnicity, beliefs, gender, sexuality, style, politics or intellectual position. If you feel personally uncomfortable or alienated, or that diversity in general is any way stifled in this class, please let the instructor know so that the situation can be remedied.

Also be aware that your studio is a public place so be sensitive to images and other materials around your desk, including on your computer, which might be offensive to others. In addition, all students are required to abide by the spirit and the specifics of the UNC Charlotte Sexual Harassment Policy, which can be found online at: <http://www.legal.uncc.edu/policies/ps-61.html>.

**SCHEDULE
+ COURSE
OUTLINE**

All information for this course including syllabus, schedule, project assignments, readings etc will be maintained on my personal website - www.sodium-design.com. This website will serve as the home for this course and in addition to information directly associated with this course also features software tutorials, a list of links to significant architectural firms, artists etc for your reference. You should feel as if you can contribute to the development of this page. This will be discussed further in class.