Course Number: ARC 6355

Course Title: Advanced Graduate Architectural Design Two

Academic Term: Spring 2025

Credits: 6

Class Periods: TBD with Studio Instructors

Meeting Locations: Gainesville Main Campus, Jacksonville CityLab, Orlando CityLab

Instructors: Elizabeth Cronin

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SYLLABUS

01. Course.Description

This course focuses on integrated building design. It builds on and incorporates prior coursework, requiring students to integrate speculative design thinking, regulatory considerations, and building systems.

02. Course Pre-Requisites / Co-Requisites

Successful completion of ARC 6241 "Advanced Graduate Architectural Design One" with a passing grade is a pre-requisite for enrollment in this course. Enrollment in Integrated Building Technologies 4, either concurrently or in a subsequent semester, is required to meet the NAAB criteria for this course.

03. Purpose of Course and Role within the Sequence

Advanced Graduate Architectural Design 2 reinforces previous design and building technology coursework, completing a studio project as a Design Synthesis and Building Integration based on NAAB Student Criteria and Learning Objectives (SC 5&6). Students are expected to develop a philosophical position and operate with a research-based design process in the design of an integrated project over the course of the semester. Emphasis concentrates on cultivating self-directed speculation, analytical thinking, and synthetic design exploration within the framework of organized studio programs. The framed programs anticipate incorporating multiple trajectories offered by companion courses both within and beyond the School of Architecture and students are encouraged to draw from this knowledge. Students are expected to develop their ideas conceptually and architecturally to provide a strong foundation in critical thinking and architectural design. Students are encouraged to use this comprehensive course to germinate scholarship and personal perspectives that will be expanded in future studios and the Thesis/PiLOT.

Studio projects will investigate spatial and material relationships between insides and outsides, negotiating the complexities of a rich program and site at the building scale. We will seek opportunities to engage history, socio-cultural relationships, phenomenology, ecology, and environment in our work. You will be charged with developing philosophical approaches that can be transformed into and through architecture. Intermediate deadlines will be assigned but it is important for students to be self-motivated and develop personal goals and targets to bring their ideas to resolution to meet project deadlines.

As a component of this course and the companion Integrated Building Technology course, students will be required to demonstrate that they are able to integrate both conceptual ideas and technical considerations. Student work must exhibit strong integrated design thinking and an ability to develop design proposals that acknowledge and attend to a wide range of concerns required for the practice of architecture.

Project briefs will be provided outlining in more detail project objectives and schedules.

04. Course Objectives

By the end of this course, students will be able to:

<u>Construct motivating stories</u> to direct design. Ground these in research, reflection, and iterative design studies.

- Shape program and built form to embody, communicate, and/or express the design intent. Respond to the motivating ideas and issues of the project program and its context.
- Investigate the effects of a particular climate (light, heat, humidity, etc.) on the experience of architecture, and how tectonics can engage these climatic characteristics.
- <u>Translate ideas into integrated buildings</u> that have sophisticated architectural definition, including code & zoning compliance, clear structural ideas, passive and active environmental systems, circulation strategies, exterior envelopes, life safety systems, fire safety systems, accessible/universal access, and specific material qualities. Deploy architectural components both pragmatically and poetically.
- Make appropriate public places that are responsive to specific programmatic objectives as well as context.
- Demonstrate visual and verbal communications skills necessary to communicate design intent.
- 05. NAAB Student Criteria (SC) + Student Learning Objectives and Outcomes Addressed in this Course 1

Through project work and assignments completed for this course, students will be required to demonstrate that they have an ABILITY to do the following:

- SC.5 **Design Synthesis** Ability to make design decisions within architectural projects while demonstrating synthesis of user requirements, regulatory requirements, site conditions, and accessible design, and consideration of the measurable environmental impacts of their design decisions.
- SC.6 **Building Integration** Ability to make design decisions within architectural projects while demonstrating integration of building envelope systems and assemblies, structural systems, environmental control systems, life safety systems, and the measurable outcomes of building performance.

Through work completed for this course, students will also be required to demonstrate that they have an UNDERSTANDING of the following issues:

- SC.1 **Health, Safety, and Welfare in the Built Environment** How the program ensures that students understand the impact of the built environment on human health, safety, and welfare at multiple scales, from buildings to cities.
- SC.2 **Professional Practice** How the program ensures that students understand professional ethics, the regulatory requirements, the fundamental business processes relevant to architecture practice in the United States, and the forces influencing change in these subjects.
- SC.3 Regulatory Context— How the program ensures that students understand the fundamental principles of life safety, land use, and current laws and regulations that apply to buildings and sites in the United States, and the evaluative process architects use to comply with those laws and regulations as part of a project.
- SC.4 **Technical Knowledge** How the program ensures that students understand the established and emerging systems, technologies, and assemblies of building construction, and the methods and criteria architects use to assess those technologies against the design, economics, and performance objectives of projects.
- 06. Course Schedule: TBD by Each Studio Faculty to include topics covered in the class and the amount of time devoted to each course subtopic.
- 07. Required Textbooks, Software, and Tools

<u>Books</u>: This class does not have any required textbooks. From time to time, books, magazines, articles, and material samples will be provided by the faculty for in-studio use. In addition, you are encouraged (required, in fact) to bring relevant reference materials to the studio for your own use and for the use of your colleagues.

<u>Software</u>: There are no required software programs, although you will need model- and vector-based digital drawing platforms to complete your design work. Although there is not a single required software tool, you may consider using a BIM modelling and documentation tool. A digital model will be needed as we will be using energy modeling software for performance analysis during the design process.

You will likely need other digital design, modelling, and rendering software as well, including Rhinoceros 3D, SketchUp Pro, Grasshopper, Maxwell, Lumion, etc., although the specific tools are at your discretion. You will need access to Adobe Photoshop and InDesign (or similarly capable programs) regularly.

<u>Tools</u>: Pencils, pens, paper, and an active, curious mind are required. Analog drawing tools, physical modelling tools, and model-building materials are required. Buy a roll of your own trace paper. Specific materials will be discussed throughout the semester.

08. Recommended Reference Materials

Ching, Francis D. K. 2022. *Building Codes Illustrated: A Guide to Understanding the 2021 International Building Code*. 7th Edition. Hoboken, New Jersey: John Wiley & Sons, Inc.

¹ Student Criteria are from the 2020 Conditions for Accreditation - As prepared by The National Architectural Accrediting Board, Inc. (NAAB), dated 1/1/2025.

Allen, Edward and Joseph Iano. 2019. Fundamentals of Building Construction: Materials and Methods. 7th Edition. Hoboken, New Jersey: John Wiley & Sons. Inc.

Allen, Edward and Joseph Iano. 2017. The Architect's Studio Companion: Rules of Thumb for Preliminary Design. 6th Edition. Hoboken, New Jersey: John Wiley & Sons, Inc.

---. 2017. ICC A117.1-2017 Standard and Commentary: Accessible and Usable Buildings and Facilities. International Code Council. https://shop.iccsafe.org/icc-a117-1-2017-standard-for-accessible-and-usable-buildings-and-facilities-1.html

Grondzik, Walter T. and Alison G. Kwok. 2019. Mechanical and Electrical Equipment for Buildings. 13th Edition. Hoboken, New Jersey: John Wiley & Sons, Inc.

---. 2023. Florida Building Code – Building. 8th Edition. International Code Council.

https://codes.iccsafe.org/content/FLBC2023P1

---. 2023. Florida Building Code – Accessibility. 8th Edition. International Code Council.

https://codes.iccsafe.org/content/FLAC2023P1

---. 2023. Florida Building Code – Plumbing. 8th Edition. International Code Council.

https://codes.iccsafe.org/content/FLPC2023P1

---. 2023. Florida Building Code – Energy Conservation. 7th Edition. International Code Council.

https://codes.iccsafe.org/content/FLEC2023P1

Additional References:

Allen, Edward and Patrick Rand. 2016. Architectural Detailing: Function, Constructability, Aesthetics. 3rd Edition. Hoboken, New Jersey: John Wiley & Sons. Inc.

Brock, Linda. 2005. Designing the Exterior Wall: An Architects Guide to the Vertical Envelope. New York: Wiley Press.

Ching, Frances D.K. 2014. Building Construction Illustrated, 5th edition. New York: Wiley Press.

Deplazes, Andrea. 2005. Constructing Architecture: Materials, Processes, Structures, a Handbook. Basel: Birkhäuser.

Ford, Edward R. 1990. The Details of Modern Architecture. Cambridge, Mass: MIT Press.

Frampton, Kenneth. 1996. "Rappel à l'Ordre: The Case for the Tectonic." In *Theorizing a New Agenda for Architecture, an Anthology of Architectural Theory 1965-1995*, edited by Kate Nesbitt, 516-28. New York: Princeton Architectural Press.

Frampton, Kenneth. 1995. Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture. Cambridge: Graham Foundation for Advanced Studies and the MIT Press.

Frascari, Marco. 1984. "The Tell-the-Tale Detail." In VIA 7: The Building of Architecture, 23-37. Philadelphia: University of Pennsylvania and MIT Press.

Kieran, Stephen, and James Timberlake. 2004. *Refabricating Architecture: How Manufacturing Methodologies Are Poised to Transform Building Construction*. New York: McGraw-Hill.

Ramsey, Charles, Harold Sleeper, John Hoke. 2016. Architectural Graphic Standards. 12th edition. New York: Wiley.

Semper, Gottfried. 1989. *The Four Elements of Architecture and Other Writings*. RES monographs in anthropology and aesthetics. Cambridge [England]: Cambridge University Press.

Detail Magazine. https://www.detail.de/de_en/

The Plan Magazine. https://www.theplan.it/eng/magazine

El Croquis. https://elcroquis.es

COURSE POLICIES

The Studio System

It is critical that students and faculty contribute to a positive, rigorous and focused environment that is both challenging and rewarding. At the graduate level, students must be self-motivated and contribute to studio inquiry, discourse and production. Faculty will set the agenda, provide a framework of reference materials, and will provide feedback, criticism and guidance to students. Students will proactively engage the issues set forward, advance the inquiry and work collaboratively and individually to develop a body of work derived from the studio agenda.

We ask that you understand that the studio is a public space both physically and digitally, and to conduct yourselves in an appropriate manner. Respect the fact that many people work/discuss in the space simultaneously and the work atmosphere must accommodate a range of tastes of music, language,

public conduct and so forth. Be both courteous toward and tolerant of your colleagues. Remember, the studio is an academic workplace; it is not an extension of your private residence.

During studio hours and during critiques, mobile devices should be turned off or placed in a silent mode. When working in the studio outside of class, please respect the wishes of your fellow classmates by limiting loud, boisterous, and or long mobile phone conversations, as these may be distracting to others. If requested, please take your conversation out of the studio.

10. Critique

From time-to-time at the end of a project or at a critical moment of the work, critiques are scheduled. These are public presentations of the work and provide a forum for its discussion. Usually one or more external critics are invited to provide a fresh viewpoint and to stimulate discussion. These sessions are usually more formal than class sessions and should be taken quite seriously. Critics come in on their own time and expend a serious level of energy on trying to understand your endeavors and give you good feedback. You should think of your presentation not as a moment of judgment, but as an opportunity to get input on implications and possible directions for development. The critiques of your fellow students will also be essential to your education as a designer. You are required to both attend and actively participate in the discussions.

11. Attendance Policy

Our policy on attendance is strict: All students are expected to attend every scheduled studio meeting. Any absence must be explained. Call the office and have a note left for your professor or contact your professor via email. It is your responsibility to get any assignments from your fellow students. Note that THREE unexcused absences will result in a full letter grade deduction, and FOUR or more unexcused absences will result in a failing grade and/or an automatic drop from the course. Arriving late (within 30 minutes of the start of class) will be counted as a half of an absence; arriving more than 30 minutes late will be counted as an absence.

It is never permissible to miss a critique, nor is it acceptable to be late or to leave early. It will be considered disrespectful to your fellow classmates and the invited critics. If you arrive late to a review, you will not be allowed to present your work and will receive an automatic reduction of one letter grade on the project or assignment. You may or may not be allowed to present your work at a later date.

If something is seriously wrong and may affect your attendance, please talk to us about it. Arrangements can be made to cope with illness, family issues, or personal crises.

12. Make-up Policy

It is not possible to make up a missed studio session. Although a long conversation with a fellow student will help you begin to figure out what to do to prepare for the next session, it can never make up the learning that happens during interactive group discussions. A session with your professor may or may not be possible and cannot duplicate the collective conversation.

13. Course Technology & Software Use

The UF Canvas e-learning portal will be used for all digital coursework and sharing of certain common references available in electronic format. It will be accessible at http://elearning.ufl.edu/. Notify your faculty if you do not have access to the course through this online portal.

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

14. Digital Fabrication Lab and Woodshop Facilities

The Digital Fabrication Laboratory, known as the "Infinity Fab Lab," is located on the ground floor of Infinity Hall (978 SW 2nd Avenue, Gainesville, FL 32601). The facility includes laser cutters (wood, plexiglass, ceramic, chipboard), 3D printers (powder, resin, PLA/NinjaFlex), CNC mill (wood), metal printer, and water jet cutter (metal), with additional tools regularly added. Information about the Infinity Fab Lab, including fees, hours, work processes, etc., is available online at: https://fablab.arts.ufl.edu/.

The Woodshop is located on the ground floor of Fine Arts Building "C" (FAC), adjacent to the Architecture Building. The facility includes a number of woodworking tools, including saws, drill presses, sanders, and hand tools.

CityLab fabrication equipment is located in the facility and available for use per policies at each location.

Orientations are required prior to use of the Woodshop or Digital Fabrication Laboratory. If you intend to use the facilities and have not yet attended orientation sessions for either of these, you should do so within the first 1-2 weeks of the semester. Contact the Fab Lab or Woodshop directly to arrange your orientations sessions. Please note that we do not always know or have control over shop hours or opening policies.

15. Spray Painting Policy

Spray painting, or the use of any other sort of aerosol spray, is NOT allowed in the Architecture Building, Rinker Hall, Fine Arts C, or CityLab spaces, except within approved spray booths. Students found in violation of this policy will be referred to the Dean of Students for disciplinary action. Note that "Architecture Building" includes the enclosed spaces of the building, as well as the exterior balconies, atrium, walkways, paved areas, stairways, common areas, roofs, and landscaping adjacent to the building.

GRADING POLICIES:

- 16. Your development as a designer and future architect relies on developing a disciplined way of working that involves a continual testing of ideas through making. Each time you make something you will take on new questions or the same questions at another level of sophistication. There is no single answer for which we are looking. We will give you feedback on the directions you have taken, suggestions for further work, and assess the architectural implications of your projects. It is critical that you learn to *critique yourselves* effectively. What we ask from you is a concerted effort, an innovative take on the problem, constructions that raise architectural issues, and for you to challenge yourself and be constantly willing to continue to develop a scheme.
- 17. <u>Assessment will be though project assignments</u>. Grades are quite straightforward and will be based on the <u>quality and completeness</u> of work, the <u>clarity and rigor of your ideas and design process</u>, and your <u>contribution to the ongoing public dialogue</u> that is integral to the studio education system and to the practice of architecture. Weight of the assessment will be 70% on project work, 20% on technical integration, and 10% on class participation.
- 18. Day-to-day interactions in studio and during presentations are noted and will have a significant impact on your final grade. We will be pleased to discuss your progress individually and make an assessment of your grade status after midterm. We will discuss more specifics in class as needed. If you have questions at any point, make an appointment to meet with your faculty instructors.
- 19. Project Requirements and Grading



Project work completed for this course MUST successfully demonstrate the ability to develop integrated design proposals that meet and demonstrate compliance with code requirements and NAAB Student Criteria. Explicit requirements will be discussed for each project and students will be required to meet minimum requirements in order to successfully complete this course with a passing grade.

20. An incomplete grade may be assigned at the discretion of the instructor as an interim grade only in cases of extreme extenuating circumstances. Note that the incomplete grade must be resolved prior to enrolling in Advanced Graduate Architectural Design Three. In most cases, failure to complete this studio before the beginning of the next semester requires a minimum one-year delay in progress through the program.

21. Graduate School Grading Scale + Qualitative Descriptions

	Letter Grade	Numeric Grade	Quality Points		Qualitative Description	
PASSING GRADES	А	100-93	4.0	Minimum	Outstanding work only	
	A-	92-90	3.67	Cumulative	Close to outstanding	
	B+	89-87	3.33	GPA	Very good work	
	В	86-83	(3.0)		Good work	
	B-	82-80	2.67	(Good work with some problems	
	C+	79-77	2.33		Slightly above average work	
	С	76-73	2.0		Average work	
FAILING GRADES	C-	72-70	1.67	Av	Average work with some problems	
	D+	69-67	1.33		Poor work with some effort	
	D	66-63	1.0		Poor work	
	D-	62-60	0.67		Poor work with some problems	
	Е	59-0	0.0		Inadequate work	

The current UF grading policies can be found at the UF Graduate Catalog: https://catalog.ufl.edu/graduate/?catoid=10&navoid=2020#grades

Please note that the University of Florida Graduate School requires that a graduate student maintain a 3.0 (B) average to remain in good academic standing. Every possible effort is made to counsel students in academic difficulty to determine the cause and possible solution so that the student can continue and complete their studies in the University. The Graduate School considers grades of C-minus or lower to be failing grades. A failing grade in a studio results in either suspension or expulsion from the architecture program. Students receiving one of these grades should immediately contact their Graduate Program advisor for guidance.

UF POLICIES

22. University Policy on Accommodating Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the <u>Disability</u>

Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

23. University Policy on Academic Misconduct

Academic honesty and integrity are fundamental values of the University community. UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: 'On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to your faculty instructors.



Plagiarism includes the direct copying of text/images from other sources as well as minor alterations of work created by others (mirroring, application of visual effects/filters/distortions, etc.). Plagiarism is a serious offense and can lead to failure of the course and/or premature dismissal from the Graduate School. We expect that the work you prepare is wholly your own, created this semester for this course. You are expected to provide appropriate citations and/or credit for images, text references, and design influences, where appropriate. If you have any questions or concerns, please consult your instructors.

Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Your thoughtful responses to these questions will help inform both the content and conduct of this course in the future.

25. Policy on Retaining Work

Please note that work that you create for this course may be retained indefinitely for academic purposes. You should be prepared for the instructor to ask that it be exhibited and/or photographed during or after the term. Having your work retained for photography and/or exhibition is evidence of its quality and value to the school. While you should be able to retrieve your original work temporarily for your own personal purposes, you should carefully photograph and document all project work prior to submission of any original materials for archival purposes.

GETTING HELP

- 26. For issues with technical difficulties for e-learning, please contact the UF Help Desk:
 - Email: helpdesk@ufl.edu
 - (352) 392-4357 available 24 hours per day, 7 days per week
 - Online: http://elearning.ufl.edu/ or http://helpdesk.ufl.edu/

Any requests for make-ups or deadline extensions due to technical issues MUST be accompanied by the ticket number received from the UF Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up or deadline extension.

27. Counseling + Emergency Contacts

U Matter, We Care:

If you or a friend is in distress, please contact <u>umatter@ufl.edu</u> or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <u>counseling.ufl.edu/cwc</u>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Student Nighttime Auxiliary Patrol (SNAP) free transportation: Use free "TapRide" app (IOS or android) to schedule pickup or call 352.392.7627.
 For more info: https://taps.ufl.edu/alternative-transportation/snap/

CHANGES AND REVISIONS TO SYLLABUS

28. This syllabus is subject to change. Any changes will be relayed during regular studio meetings.

SCHEDULE ATTACHED PER INDIVIDUAL STUDIO