

**Florida Atlantic University**

**Interim Progress Report for Year Two**

**Instructions and Template**

November 30, 2019

## **Contents**

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# 1. INSTRUCTIONS AND TEMPLATE GUIDELINES

## Purpose

Continuing accreditation is subject to the submission of interim progress reports at defined intervals after an eight-year or four-year term of continuing accreditation is approved.

This narrative report, supported by documentation, covers three areas:

1. The program's progress in addressing not-met Conditions or Student Performance Criteria from the most recent Visiting Team Report.
2. Significant changes to the program or the institution since the last visit.
3. Responses to changes in the NAAB Conditions since your last visit (Note: Only required if Conditions have changed since your last visit)

## Supporting Documentation

1. The narrative should describe in detail all changes in the program made in response to not-met Conditions and Student Performance Criteria.
2. Provide information regarding changes in leadership or faculty membership. Identify the anticipated contribution to the program for new hires and include either a narrative biography or one-page CV.
3. Provide detailed descriptions of changes to the curriculum that have been made in response to not-met Student Performance Criteria. Identify any specific outcomes expected to student performance. Attach new or revised syllabi of required courses that address unmet SPC.
4. Provide additional information that may be of interest to the NAAB team at the next accreditation visit.

## Outcomes

IPRs are reviewed by a panel of three: one current NAAB director, one former NAAB director, and one experienced team chair.<sup>1</sup> The panel may make one of three recommendations to the Board regarding the interim report:

1. Accept the interim report as having demonstrated satisfactory progress toward addressing deficiencies identified in the most recent VTR.
2. Accept the interim report as having demonstrated progress toward addressing deficiencies but require the program to provide additional information (e.g., examples of actions taken to address deficiencies).
3. Reject the interim report as having not demonstrated sufficient progress toward addressing deficiencies and advance the next accreditation sequence by at least one calendar year but not more than three years, thereby shortening the term of accreditation. In such cases, the chief academic officer of the institution will be notified, and a copy sent to the program administrator. A schedule will be determined so that the program has at least six months to prepare an Architecture Program Report. The annual statistical report (see Section 9 of the 2014 Conditions) is still required.

## Deadline and Contacts

IPRs are due on November 30. They are submitted through the NAAB's Annual Report System (ARS). Contact Ellen Cathey ([ecathey@naab.org](mailto:ecathey@naab.org)) or David Golden ([dgolden@naab.org](mailto:dgolden@naab.org)) with questions.

## Instructions

1. Type all responses in the designated text areas.
2. Reports must be submitted as a single PDF following the template format. Pages should be numbered.
3. Reports are limited to 25 pages/10 MBs.
4. Supporting documentation should be included in the body of the report.
5. Student work is not to be submitted as documentation for a two-year IPR.

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<sup>1</sup> The team chair will not have participated in a team during the year in which the original decision on a term of accreditation was made.

## 2. EXECUTIVE SUMMARY OF 2017 NAAB VISIT

### CONDITIONS NOT MET

<b>2017 VTR</b>
none

### STUDENT PERFORMANCE CRITERIA NOT MET

<b>2017 VTR</b>
B. 4 Technical Documentation
B.9 Building Service Systems
B.10 Financial Considerations
C.2 Evaluation and Decision Making
C.3 Integrative Design

### 3. TEMPLATE

**Interim Progress Report**  
**Florida Atlantic University**  
**School of Architecture**  
**Bachelor of Architecture (159 semester credits)**  
*Year of the previous visit: 2017*

*Please update contact information as necessary since the last APR was submitted.*

**Chief administrator for the academic unit in which the program is located:**

**Provost: Dr. Bret Danilowicz**

**President of the institution: Dr. John Kelly**

**Individual submitting the Interim Progress Report: Anthony Abbate, Director**

**Name of individual(s) to whom questions should be directed: Anthony Abbate, Director**

**Current term of accreditation: January 1, 2017 to December 31, 2024**

Text from the most recent VTR or APR is in the gray text boxes. Type your response in the designated text boxes.

## 1. Progress in Addressing Not-Met Conditions and Student Performance Criteria

Since our last accreditation visit, the faculty of the School of Architecture has engaged in a thorough review of our curriculum. This review involves an assessment of the knowledge, skills, and attitudes being addressed in each course, as well as the method and timing of the delivery of that material: from introduction through testing. A revision of the course descriptions and syllabi for courses in the core curriculum were implemented to reflect the distribution of technical knowledge and skills delivery and testing, with clear points of introduction and testing for student competency. Our report of progress for each of the conditions not-met and SPC is summarized as follows.

### B.4 Technical Documentation

**2017 Visiting Team Assessment:** The team did not find evidence of student achievement at the prescribed level for this criterion in the student work products presented. There were no examples of outline specifications or examples of an array of drawings with reference notations used to convey the complexities of a building and its constituent parts. The team asked the program to produce further evidence, but this evidence did not meet the requirements of the criterion.

**Florida Atlantic University, 2019 Response:** [Click here to enter text.](#)

**ARC 4326 Architectural Design 7** students are required to complete two projects over the course of the semester. Incorporated into the assignments is an intensive “detail generation” exercise. The “detail generation” exercise engages students to focus on the implications of change in design scale, and the technical assembly processes. This is achieved through both drawing and modeling of the detail at a large 1:2 scale, e.g. 6” = 1’-0”. The exercise is introduced mid-course during the semester and acts as an additional impetus for the development of the design project informed by considerations presented at the larger scale. In the final weeks of the semester, each student must revisit assemblies and generate detailed wall sections of their design proposals. Similar emphasis is repeated at each design level in the upper level design sequence.

**ARC 5352 Comprehensive Design Project** has shifted in teaching methodology and deliverables to address technical documentation in a way that is integrated into the graphic and written communication components of student work. The assignments require that each student propose, develop, and present a wall section with labeled outline specifications, and include reference notations on all technical plans, sections, and elevations including general notes, outline specifications, notational and graphic standards. Furthermore, students tasked with introductory development of construction documents that include both drawings and specifications. Students are taught that technical drawings convey design intent and may require multiple views as 3-D and 2-D representation as part of the design development of their projects considered either as a whole or in parts. Students are also taught that complementary specifications (using industry standard CSI MasterFormat) provide detailed information concerning the performance characteristics and quality criteria for project components such as requirements for the physical qualities, chemical properties, performance requirements, and standards of workmanship associated with the manufacture and installation of systems, assemblies, and components. Faculty provide workshops and in class assignments for students to more fully understand the technical drawings. Text—in the form of notes—is added to the illustrations as a means of providing more *information, identification and instruction*. This has been cross-coordinated with all studio sections to insure equity in deliverables. Of note is the importance of describing and thus having students deliver details related to technical documentation as follows:

***Drawings:*** Graphic and textual information organized on a two-dimensional surface for the purpose of conveying data about a specific portion of a project.

**Specifications:** Define the qualitative requirements for products, materials, and workmanship on which the construction contract is based.

The studio is structured to introduce these skills if appropriate, but primarily to repeat and test these skills that were introduced in previous design studios and lecture courses. See response to C.3 criteria for further detail.

**ARC 3463 Materials and Methods of Construction 2** has addressed B.4 VTR Assessment concerns through a shift in teaching methodology and project deliverables. Three project assignments build off one another as proof of the students' ability to access and research relevant information within a precedent project and are further tested through course exams for comprehension and understanding. *Assignment 1: Precedent Research and Materials Study*, requires that students research a relevant building of noted reputation and deliver a report that analyzes materials utilized and then to organize those materials utilizing the standard CSI MasterFormat for developing outline specifications. *Assignment 2: Building Section*, requires that students generate a building section at 1/16" scale showing major building construction types and assemblies, and label materials in the form of Outline Specifications, and organized in three main parts: general; products; and execution. *Assignment 3: Wall Section*, requires that students generate a wall section at 1/2" scale with appropriate CSI MasterFormat section numbers. These exercises become a basis for students in advanced studios that are introducing, repeating and testing B.4. The syllabus and assignment briefs have been included for reference.

**Note:** In addition to the above, B.4 Technical Documentation is now addressed across all design studios. With the integration of concepts, principles and formats for technical documentation across the design studio sequence, students are better prepared at the points where the SPCs are tested. For example, in ARC 3320 Architectural Design 5, students are required to prepare precedent analyses, and document them through analytical drawings and / or sectional structural models, as a component of their design projects. In ARC 3321 Architectural Design 6 students are required to prepare wall sections with appropriate notations, describing general structural principles, accommodation for environmental systems, and material selections. These issues are further explored in greater detail as they advance through the design sequence, culminating in highly detailed technical documentation in ARC 5352 Comprehensive Design Studio (described above).

## **B.9 Building Service Systems**

**2017 Visiting Team Assessment:** The team did not find evidence of student achievement at the prescribed level for communication systems and security systems in the student work in the team room. The team asked the program to produce further evidence, but this evidence did not meet the requirements of the criterion.

**Florida Atlantic University, 2019 Response:** [Click here to enter text.](#)

**ARC 4620 Environmental Technology 2** addresses B9. Building Service Systems through a comprehensive approach, that *includes topics of communication and security systems in lectures, tests, and projects*. The course is designed to cover principles, concepts, and specifics of building environmental systems, focused on active building systems, targeting students' understanding and application. The lectures, quizzes, assignments and tests build off one another as evidence of students' comprehension and acquired knowledge of the course materials. Four projects are also assigned to the students to apply their knowledge.

### *Project 1: HVAC systems and building energy simulation*

Students are asked to customize the HVAC components of a small project and simulate the building performance in terms of energy consumption and daylight with calculation of cooling/heating loads,

and required artificial lighting. Throughout the project, a tour to the HVAC system in our building is scheduled to enhance the students' comprehension of HVAC systems, by visiting refrigeration power plant and the cooling towers, a mechanical room, and understanding the duct-work of a commercial office building.

*Project 2: Water and plumbing systems in building design*

Students examine and produce drawings and diagrams of the plumbing equipment, storm water and sprinklers, and waste-water pipes and design of a given building.

*Project 3: Reflected ceiling drawing*

Students develop a reflected ceiling plan, and design the electrical system, artificial lighting system, and the communication and security systems of a given building.

*Project 4: Building services in Revit*

Students are asked to model the building service systems of one floor of the Higher Education Complex in the Building-Information Modeling (BIM) tool, Revit, developing a BIM model of the building's mechanical HVAC system components, the electrical system and communication and security systems, in addition to the plumbing system. The course includes also multiple quizzes and assignments, and a cumulative final test.

*Integration of communication and security systems in the course curriculum was also engaged through the following:*

- *As evidence of students understanding and application of the communication systems, we dedicate a lecture on the topic, demonstrating the principles and guidelines of designing communication systems with examples of building case studies, including the lecture content in the tests. In terms of application, communication systems were integrated into the requirement of modeling and documenting the service systems in Project 3 and 4.*
- *For security systems, similarly, we introduce the topic in a lecture, presenting an array of security systems. The lecture materials are included into tests, and the security systems are part of projects 3 and 4.*

**ARC 5352 Comprehensive Design Studio** also addresses B.9 through the development of course workshops that focus on particular technical issues related to building systems, assemblies and components. In this series of workshops students develop communication and security system floor plan layouts and three-dimensional diagrams for studio projects. This criterion is included as a component of their assessment for the course.

## **B.10 Financial Considerations**

**2017 Visiting Team Assessment:** The team did not find evidence of student achievement at the prescribed level for construction scheduling, operational costs, and life-cycle costs in the student work in the team room. The team asked the program to produce further evidence, but this evidence did not meet the requirements of the criterion.

**Florida Atlantic University, 2019 Response:** [Click here to enter text.](#)

**ARC 5271 Professional Practice A**, and **ARC 5272 Professional Practice B** have been modified to improve the quality of material addressing the student performance criteria covered in each course. Specifically, ARC 5272 Professional Practice B now includes significant material relating to strategic planning and budgeting considerations associated with capital improvements, and the management of resources associated with these costs. Emphasis is placed on project costs during the entire strategic planning, budgeting, design, construction and operation of a building. Various project delivery methods now highlight the differences in the typical project schedules associated with each of several development scenarios. Below is a more detailed overview of the curriculum additions and revisions:



- 1) *Project Financing Methods and Feasibility*: Project Delivery Methods are now explored in the course, and are classified into two types: Conventional and Alternative. The various Conventional methods for delivering projects: Conventional Public Procurement, Service Contracts/Operational and Maintenance Contracts, Build-Operate-Transfer, Build-Own-Operate-Transfer, Build-Lease-Transfer, and Divestiture; as well as Alternative methods such as public/private partnerships. Students are asked to reexamine the various scenarios through the creation of a critical essay.
- 2) *Construction Cost Estimating*: Students are now introduced to various cost estimating methods as they relate to scope of work and division of the construction trades. The effect of market forces, as the demand for construction increases or lags, is introduced and reinforced through a series of exercises.
- 3) *Construction Scheduling*: The various project delivery scenarios Design-Bid-Build, Design-Build, Construction Management, and Integrated Project Delivery are introduced. The typical construction schedule scenarios, associated with each delivery method, are examined and contrasted. Knowledge of these concepts is reinforced through student exercises, quizzes and tests
- 4) *Operational Costs*: The various costs resulting from long term operation of a building or campus are introduced and examined with the students. This set of lessons allows for the introduction of ethical discussions with regard to the reasonable utilization and consumption of energy and natural resources. Various technological solutions are examined to expose the student to the notion of building systems controls options and strategies employed at various building(s) sizes and types. Operational cost implications as a result of building ownership versus leased space strategies is also considered. Students are asked to reflect on these issues through the creation of a critical essay.
- 5) *Life Cycle Costs*: The long-term costs associated with capital improvements taken as a result of strategic planning decisions by institutions, private sector companies and government agencies is introduced and examined. The approach to life cycle costs is contrasted with traditionally more typical first cost scenarios. The analysis of life cycle costs is broken down to teach the student a typical analysis method for calculation of these costs. The concepts related to time-value of money and discount factors, as they relate to long-term operational costs of a physical plant are also examined. These concepts are further reinforced through student exercises, quizzes and testing.

**Note:** In the spring of 2019 the School advertised a full-time faculty position for someone who could teach both professional practice and advanced design studio. This new hire has revised both professional practice courses to emphasize the ethical and technical issues which crosspollinate the fifth-year design sequence as well as the professional practice of architecture. Issues related to ethics, stewardship and leadership encountered by students. In the ARC 5328 and ARC 5352, advanced design studio issues are further interrogated through rich discussion and debate within the professional practice sequence that is scheduled to parallel with the professional practice sequence .

## **C.2 Evaluation and Decision Making**

**2017 Visiting Team Assessment:** The team did not find evidence in the student work presented in the team room that meets this criterion at the prescribed level. The presentation of the process that led to the final design was missing or lacking in completeness; therefore, the connections between the process and the conclusion were not clear. The testing of alternatives was not demonstrated, followed by making an informed selection so that the student's decisions would lead to success when implemented. The team asked the program to produce further evidence, but this evidence did not meet the requirements of the criterion.

**Florida Atlantic University, 2019 Response:** [Click here to enter text.](#)

**ARC 4326 Architectural Design 7** students work on two projects over the course of the semester. Both projects entail a structure where abstract ideas and concepts are explored through the gathering of data information and fictive narratives. Each must be incorporated into the student's thinking processes and establish a basis for their design decisions. Part of these processes combine the analysis of phenomena such as site and similar building types. Other phenomena emerge from cultural encounters, stories and site-specific experiences. Conclusions drawn from analysis prod students to document differences and base decisions on the specifics of their narratives, both the objectively based data and the subjectively-based experiences.

*Students are required to evaluate and document criteria, both given and discovered during the design process. The decision-making process is diagrammed and documented in each student's notebooks as well as evidenced in their project models and drawings.* As numerous models and drawings are made over the course of the semester, students, individually and in groups are required to compare strategies and solutions to massing, volumetric organization in relation to urban context and the specific site history and qualities. By examining alternative project strategies, students must form a sound narrative that integrates their evaluations and guides them in the decision-making process.

In **ARC 4327 Architectural Design 8**, an integrative approach to C2. Integrated Evaluations & Decision-Making Design Process is utilized throughout the semester's coursework. This is achieved by challenging students to identify and carry forward qualities and principles from each assignment into the next. These identifiable qualities and principles in each student's work (and including group site analysis, programming and comparative precedent studies) are tested during the course of the semester. At each assignment phase, ideas being brought forward from previous stages are questioned and sometimes replaced by another for better founded notions and ideas that emerge during the process. Embedded in the process are research methods that help highlight specific kinds of qualities and principles. For example, a distinction is made between scientific research methods as applied to factors such as environmental technology, and historical-interpretative or qualitative research methods. Each help define other latitudes of the design investigation's narrative over the course of the semester.

During the beginning stages, students are exposed to speculative questions about the nature of program, the site and its history, air and light, among others. This "scaffold-building" process prods students to make conscious choices about which qualities learned in each assignment can best build and reinforce the student's design intent and arguments. The process is therefore iterative and the highlighting of particular qualities identified in previous assignments may change. A-2, Design Thinking Skills and C-2, Integrated Evaluations and Decision-Making Design Process are the two SPCs that work hand-in-hand in this course. The emphasis on A-6, Use of Precedents; B-1, Pre-Design; and B-6, Environmental Systems (addressed in Assignments 3,4, and 5) largely depends on the student's choices within the construct of his/her design intents. Classroom critiques and design reviews are used to discuss the relative value of the student's intents and their ethical underpinnings.

The entire process is regarded as a synthetic endeavor, combining abstract and analytical assignments to generate and assess design concepts and programmatic scenarios. They are seen as complementary as far as their response to the Student Performance Criteria. *The assignment structure includes documentation of students' decision-making process in their sketchbooks. Students are required to document, through diagrams, sketches and written text, the decision-making process over the course of the semester. Ultimately, the course structure and the specific assignments and their order provide proof of a process. Therefore, the body of work produced by any individual over the course of the semester must be exhibited in its entirety in order to appropriately document each student's evaluative and decision-making process.*

**ARC 5352 Comprehensive Design Project** has addressed C.2 VTR Assessment concerns through prototyping and modeling exercises that raise awareness with regard to how aesthetic, environmental performance and contextual appropriateness are met. Students are tasked with (1) providing studies through environmental and contextual modeling to assess alternative design outcomes; and (2) documenting through sketchbooks how design strategies and concepts are used to set problems and criteria for evaluation and informed selection of a design approach. Deliverables include diagrams, sketches and a sketchbook. The studio is structured to repeat and test these skills from previous design studios. See response to C.3 criteria for further detail.

### **C.3 Integrative Design**

**2017 Visiting Team Assessment:** The team did not find evidence of the multiple requirements for this criterion at the prescribed level. There were no consistent examples of work depicting the integration of environmental systems, life safety, and accessibility issues into a design project through the display of system diagrams, and the incorporation of spaces that met the requirements were missing. The team asked the program to produce further evidence, but this evidence did not meet the requirements of the criterion.

**Florida Atlantic University, 2019 Response:** [Click here to enter text.](#)

**ARC 5352 Comprehensive Design Project** has been extensively overhauled to address deficiencies within C.3 Integrative Design as indicated above. Specifically, within the ARC 5352 Comprehensive Design Project course, faculty have developed teaching methodologies and curriculum to respond to the assessment and enable consistent examples of student work related to the integration of environmental systems, life safety, and accessibility issues. The studio is structured to repeat and test these skills from previous design studios. These activities include greater coordination, workshops, final documentation requirements, and consistency of project types/programs. The following is a detailed explanation of these activities:

*Coordination:* ARC 5352 studios are cross-coordinated through a teaching/course manual to ensure the same level of student performance criteria outcomes. The manual and faculty teaching these courses lay out expectations in the course syllabus and project assignments. Deliverables and learning outcomes include sketchbooks, final booklets, and posters that are formatted similarly and include work depicting the integration of environmental systems, life safety, and accessibility issues through development of diagrams and technical drawings that include incorporation of spaces and accommodations of building systems, assemblies and components. Faculty teaching these studios in a particular semester have weekly coordination meetings and combined studio workshops/reviews as a way to assess the ongoing semester and ensure C.3 deficiencies are being met.

Concurrently, issues related to environmental stewardship and accessibility are also discussed, reviewed, and tested in ARC 5271 Professional Practice. These discussions are conducted in the Socratic method and frame the issues in the context of ethical, and moral responsibilities for designers in addition to responsibilities of professional practice emanating from a reasonable standard of care. Broader social constructs relating to universal design, social justice for people with ambulatory challenges and other disabilities, as well as ethical responsibilities relating to stewardship of project resources and achieving reasonable value for the resources utilized.

*Workshops:* A series of faculty-led workshops has been instituted for students in development of integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies. Part of these workshops is the requirement to deliver system diagrams

and wall sections that showcase material assemblies, outline specifications, environmental systems, life safety, and accessibility in particular in order to meet the VTR Assessment. Each workshop has a particular focus to allow for concentration on a particular design issue. For example, within the life safety workshop students calculate various project use/assembly programs and determine egress requirements and then apply within the design development of egress and fire-rated assemblies plans.

*Documentation Requirements:* A series of documentation standards has been implemented as a requirement of successful completion of the course. A combined studio booklet is produced in the early stages of the semester to document student land planning (zoning or form-based code) and building code research. This document serves as a design manual tailored to the specific project requirements moving forward. Students are also required to maintain a sketchbook throughout the semester that documents design-thinking skills through evaluation and decision making which addresses C.2 criteria as well. Deliverables include an 11x17 project report/booklet that documents the semester work and in particular required system diagrams and incorporated spaces that satisfy the deficiencies from the VTR assessment. These booklets have been standardized to provide clear delivery of C.3, as well as B.4 and C.2 criteria.

*Project Types and Programs:* The faculty have generated outlines for prototypical project types and sizes that are consistent in complexity and program for a student within the integrative design studio. These projects typically range from higher-education facility, museums, to multi-family mixed-use projects of approximately 100,000-300,000SF. These programs are documented in the course manuals.

**Note:** The faculty embarked on a review of the curriculum and course sequence following the last NAAB Accreditation visit. (see section on **Significant Changes in Educational Approach: Curriculum Review and Documentation** that follows later in this document). These changes were developed to address the challenges of delivering knowledge across a variety of courses and through the sequence of design studios, with the intent that more complex knowledge sets build on knowledge gained in previous courses and studios. Topics are introduced, repeated and tested in various courses at various levels, culminating in the Integrative Design Studio (ARC 5328) and the Topical Studio (ARC 5352). We are currently in the process of updating the course descriptions in the University Curriculum Committee system. Moving forward and ARC 5328 will satisfy C.3 SPC criteria.

## **2. Changes or Planned Changes in the Program**

*Please report such changes as the following: faculty retirement/succession planning; administration changes (dean, department chair, provost); changes in enrollment (increases, decreases, new external pressures); new opportunities for collaboration; changes in financial resources (increases, decreases, external pressures); significant changes in educational approach or philosophy; changes in physical resources (e.g., deferred maintenance, new building planned, cancellation of plans for new building).*

**Florida Atlantic University, 2019 Response:** [Click here to enter text.](#)

### **Faculty Retirements**

Professor Deirdre Hardy retired on December 31, 2018. In the Spring 2019 semester, she was awarded the rank of Faculty Emeritus in the College for Design and Social Inquiry.

### **Faculty resignations / succession planning**

Associate Professor Vladimir Kulic, whose area of specialization is Architectural History, resigned from the university at the end of the Fall 2018 semester.

Associate Professor Mate Thitisawat, whose area of specialization is Environmental Technology, resigned from the university at the end of the Summer 2019 semester.

### **New hires, open faculty lines**

During the Spring semester of 2019, we ran a successful faculty search for two full-time tenure track faculty and one full-time instructor:

Assistant Professor Dr. Shermeen Yousif, who specializes in Environmental Technology and Design and Computation, joined the faculty in the Fall of 2019.

Assistant Professor Daniel Bolojan, whose area of specialization is Design and Computing, will join the faculty in January of 2020.

Andrew Hayes was appointed to the position of Full Time Instructor in the Fall of 2019. He replaces Associate Professor Henning Haupt, who had resigned from the University in the fall semester of 2016. His area of specialization is Professional Practice. In addition to his teaching responsibilities, Prof. Hayes is also appointed as Coordinator for the Institute for Design and Construction (IDaC), where he oversees educational and training programs for students and professionals throughout the building industry, including but not limited to: safety science, construction technology, construction management, continuing education, ARE preparation, etc.

We are currently awaiting authorization from the Provost's office to begin a search for an additional full-time line at the rank of Associate Professor or above. We expect to begin a search in the Fall of 2019 and expect to have the position filled by Fall of 2020.

### **Administration Changes**

#### *New Director and Associate Director for the School of Architecture*

At the beginning of Fiscal Year 2017-2018, Anthony Abbate was appointed as Director of the School of Architecture. In addition to his responsibilities as Director of the School, Professor Abbate continues in his role as Associate Provost for Broward Campuses. At the same time, the Dean of the College for Design and Social Inquiry funded a new administrative position in the School of Architecture, and Associate Professor Francis Lyn was appointed as Associate Director of the School. The Associate Director is responsible for managing and administering the Bachelor of Architecture program, including such activities as scheduling, assigning faculty, recruitment of adjuncts, and in supporting and encouraging faculty to employ the latest technology in course delivery.

#### *New Dean and Associate Dean for the College for Design and Social Inquiry*

Dean Wes Hawkins stepped down from the Deanship at the end of Fiscal Year 2018-2019. He has been replaced by Interim Dean Naelys Luna. Interim Dean Luna has appointed Associate Professor Jesse Saginor as Associate Dean for Academic Affairs and Student Services for the College. It is expected that the University will begin a search for a new Dean for the College for Design and Social Inquiry in the Fall of 2019.

#### *New Provost and Vice President for Academic Affairs*

On July 1, 2018, Dr. Bret Danilowicz joined the University as Provost and Vice President for Academic Affairs.

### **Changes in enrollment**

#### *Increased enrollment*

The School of Architecture has streamlined the application process for entry into the upper division Bachelor of Architecture program. In an effort to improve access to our program, we have implemented an entirely online application and portfolio submissions process. This has resulted in a substantial increase in enrollment for the 2018 - 2019 academic year. The incoming junior class in the Fall of 2019 was 72 students. By comparison, the previous three years of incoming junior classes has averaged approximately 40 students. This represents an 80% increase in enrollment.

#### *External Pressures*

- University requirement for increased enrollment  
All programs are currently being asked by the University to increase enrollments. In order to achieve this we have also streamlined the applications and admissions policies and protocols

in our Lower Division program (note: the lower division program is not a part of our Accredited program). We have seen steady growth in this program over the last several years. In the Fall of 2016 we enrolled 39 students in the Freshman class. By the Fall of 2019, we had increased that number to 59 students (approximately 50% increase)

- Professional demand  
South Florida has seen tremendous growth and development recently. This growth has led to increased demand for a workforce that is trained in disciplines related to the building industry. According to the Bureau of Labor and Statistics, Florida ranks 5<sup>th</sup> in the nation in terms of employment of 4,340 architects with a mean annual wage of \$82,710.00 [Source: <https://www.bls.gov/oes/current/oes171011.htm#st> ]

### **New Opportunities for Collaboration**

#### ***MetroLAB***

The mission of the MetroLAB Collaborative is to engage faculty, students, and the community in collaborative activities that advance scholarship and improve the well-being of the community within a metropolitan sub-tropical setting. The MetroLAB Collaborative endeavors to discover knowledge through inquiry, guided by the disciplines at the university, to address local and global challenges; and to explore, exchange, and apply knowledge and information for the mutual benefit, resilience, vitality and health of our communities and the regional physical environment.

Associate Professor Jeffrey Huber was appointed as Director of MetroLAB Collaborative in Fall of 2018, following in the footsteps of previous directors Anthony Abbate and Francis Lyn. Prof. Huber has a record of grants from sources such as the National Endowment for the Arts and the Florida Sea Grant Program. In addition, he and his predecessors have endeavored to collaborate with various regional municipalities and stakeholders on a variety of projects relevant to the local community. These projects are engaged with the academic studio environment as a means of enhancing the studio experience for our students through the inclusion of a Service Learning component in the ARC 5328 Advanced Architectural Design 1 course.

#### ***FABLAB***

In January of 2019, Joel Hopler was hired as Fabrications Laboratory Coordinator. Since his arrival Mr. Hopler has worked to update policies and practices in our Fabrications Laboratories, in order to establish more consistent oversight of the shop and fabrications facilities for the school. In addition he is developing protocols, policies, and safety certification programs that will allow the FABLAB to be more easily accessed by the wider university community, and eventually the local professional community. This will increase the opportunities for collaboration across disciplines, and with the local professional community.

#### ***FAU Research Pillars***

*Research collaboration –Faculty within the school of architecture are encouraged to engage the Research Pillars of the University:* Institute for Human Health and Disease Intervention (I-HEALTH); FAU BRAIN Institute (I-BRAIN); Institute for Sensing and Embedded Network Systems Engineering (I-SENSE); and Harbor Branch. Faculty from the school of Architecture are currently working with I-SENSE to develop research activities, and we have also collaborated on presentations of lectures and guest speakers.

### **Changes in Financial Resources**

(increases / Decreases)

#### ***General***

- Faculty received 2% salary increases in October 2017, October 2018, and October 2019.

- On 7/1/2017, the school added an Associate Director position. A 9-month faculty member was promoted into the position with an administrative salary allowance and reduced instructional assignment.
- Auxiliary revenues generated by the Institute for Design and Construction increased 125% over the past three fiscal years.
- No other meaningful changes to financial resources have occurred. The school budget has been relatively stable.

#### *Auxiliaries & Entrepreneurship*

- *Institute for Design and Construction (IDaC)*  
The Institute for Design and Construction is an auxiliary of the School of Architecture that is committed to providing effective resources for affordable continuing education intended to improve increased awareness of best practices for the health, safety, and welfare for consumers and professionals associated with the allied design and construction trades. In Fall of 2018 Instructor Andy Hayes was appointed Coordinator of IDaC. Through his leadership, IDaC has expanded its offerings and has seen an increase in revenues. These revenues help to support research and academic activities of the faculty and students of the School of Architecture.
- *FABLAB*  
We are currently working to establish a new auxiliary account for the FABLAB that will allow us to increase awareness of and access to the Fabrications Laboratory facilities. For the first phase of this endeavor we expect to see increased use of the facilities by other university units including Graphic Design and Multimedia Studies, who will be co-locating to our Downtown Fort Lauderdale campus within the next several years. This additional use will increase revenues generated by faculty and students who will pay for the use through the new auxiliary account. The second phase of expansion of access to the FABLAB will come when we open the facility to local professionals. This operation will allow us to charge market rates for a variety of services related to digital fabrication.

#### *Donations to the School*

- *Don and Elaine Singer Frank Lloyd Wright Collection*  
In January of 2019, local architect Donald Singer and his wife Elaine donated their collection of Frank Lloyd material to the School of Architecture. Comprised of 189 pieces, this collection includes original drawings by Frank Lloyd Wright, rare books, letters, photographs, etc. and is valued at \$91,680.
- *Dan Duckham Collection*  
*In the Summer of 2019, local architect Dan Duckham, donated his archives to the School of Architecture. Mr. Duckham's body of work is respected by local architects and historians. His archives should prove to be a rich source of research for future generations of architects who seek knowledge about mid-century architecture in South Florida. The collection is comprised primarily of drawings from Mr. Duckham's practice, and is valued at \$25,000.*

#### *External Pressures*

We have expanded physical resources in the form of greater access to new technologies (2D / 3D printing, laser cutting, etc.), however we need to review the costs of providing those resources. In particular, the University has revised its policies regarding how certain fees might be used to acquire materials and equipment related to the student production of work (including paper and ink for plotting, resin for 3D printing, and tools and equipment for the FABLAB / Woodshop. These restrictions have required that we reassess how funds are being allocated and may require that we revise our policies regarding the use of these resources.



## **Significant Changes in Educational Approach**

### *Curriculum Review and Documentation*

The faculty are undertaking a comprehensive and continual process of review and development of course manuals for each of the courses in our required curriculum. This resource will allow the full time faculty to maintain better control over the curriculum, and ensures the continuity of the engagement of knowledge should unexpected circumstances arise. The course manuals contain course objectives; a chart outlining the knowledge, skills, and attitudes introduced, repeated, or tested for each course; syllabi; course notes; exercises; projects; quizzes; exams; and references.

The curriculum review undertaken by the faculty led to increasing the engagement of technical knowledge across studios (for example requiring detailed wall sections in ARC 3321 Architectural Design 6). Moving forward, Integrative design will be addressed in ARC 5328. ARC 5352, the final design studio, will be a topical studio where students and faculty might more appropriately address design research.

The faculty and students are also undertaking a review of studio culture, protocols and expectations of design reviews (desk crits and reviews/juries), for the next Student Manual update.

### *Focus on Technology*

We have recently hired two faculty with specializations in Environmental Technology and Design Computing. The Environmental Technology faculty member, Dr. Shermeen Yousif, joined our faculty in the Fall of 2019, and the Design computing faculty, Daniel Bolojan, will join our faculty in the Spring of 2020. Both of these faculty members bring a research profile and depth of knowledge related to environmental technology, design computing, augmented reality, and so on. With this hire, we will have three faculty with expertise in the area of design computing, which represent approximately 25% of our full time faculty. The faculty intend to leverage this knowledge asset as we continue to review our curriculum.

Our new coordinator for our Fabrications Laboratory is also well versed in digital methods of production, and will be working closely with these faculty members.

### *eLearning*

The administration of the school and University see eLearning as a tremendous opportunity to improve access to academic programs. The university has invested significant resources in developing facilities and support systems to assist faculty in course development. Faculty are encouraged to develop eLearning courses and are eligible for additional stipends if they select to do so. Currently we have 3 eLearning courses in development: ARC 3463 Methods and Materials 2; ARC 5271 Professional Practice A; and ARC 5272 Professional Practice B

## **Changes in Physical Resources**

### *MetroLAB*

MetroLAB is the window of the school, onto the local community. While the primary function of the space is academic, it also functions as a gallery / exhibition space, a lecture hall, and community engagement space. Situated on the ground floor of the HEC building, it faces Las Olas Boulevard, and allows the community to engage the work of the school

### *FABLAB*

The Fabrications Laboratory and wood shop are currently undergoing a transformation. Since joining our Staff, FABLAB Coordinator Joel Hopler has endeavored to reorganize these facilities to make them both safer and more visible. He is currently in the process of developing proposals to make these facilities more accessible to the wider university community. He is also currently working with Professor Shermeen Yousif on grant proposals to acquire additional equipment including a new laser cutter and a robotic arm.



#### *Instructional Resource Room*

In the Fall of 2019, the instructional Resource Room was established. This room serves as the repository for the School of architecture Course Manuals, emeritus / adjunct faculty office, and meeting room for faculty. As the repository for our course manuals, this space allows this information to be easily accessible by all faculty, thereby supporting the curricular requirements of the program.

#### *Special Collections Room*

This room serves as the repository of the Don and Elaine Singer Frank Lloyd Wright Collection, the Dan Duckham Collection, and a variety of other rare books and artifacts that have been donated to the school. This room was inaugurated in the January of 2019.

#### *T6 - Lower Division Studio Space – Growth / Development as feeder to upper division program*

In the Fall of 2019, the Lower Division program of the School of Architecture was moved to the historic T buildings on Main Campus of FAU, located in Boca Raton, Florida. While the lower division program is not a part of the accredited program, it does serve as a feeder program for our Bachelor of Architecture degree program. This facility provides appropriate studio environments for our lower division students, and allows them to pursue their design proposals and other academic work in a space dedicated only to architecture students.

**3. Appendix** (include revised curricula, syllabi, and one-page CVs or bios of new administrators and faculty members; syllabi should reference which NAAB SPC a course addresses)

**Florida Atlantic University, 2019 update:** [Click here to enter text.](#)

## Anthony J. Abbate, AIA, NCARB

Updated 20 October 2019

WORK: Florida Atlantic University  
111 East Las Olas Boulevard HE 1109A  
Fort Lauderdale, Florida 33301  
Telephone: 954.235.1285 o | 954.328.0973 m  
aabbate@fau.edu www.fau.edu/broward

HOME: 1222 Southeast 1st Street  
Fort Lauderdale, Florida 33301  
Telephone: 954.462.2682 h | 954.294.5908 m  
anthonyabbate@me.com

Education	<b>Master of Architecture</b> (Terminal Degree), 1982, Washington University, St. Louis MO <b>Bachelor of Science in Architecture</b> , 1980, The Catholic University of America, Washington DC
Certificates	<b>Building Envelope Problems</b> , 2000, Graduate School of Design (GSD), Harvard University, Cambridge MA <b>Real Estate Financial Analysis</b> , 1997, GSD, Harvard University, Cambridge MA <b>ADA-ADAAG Compliance Issues</b> , 1994, GSD, Harvard University, Cambridge MA <b>Language of Design</b> , 1994, GSD, Harvard University, Cambridge MA
Experience 5 years	2017-present <b>Director</b> School of Architecture, Florida Atlantic University 2011-present <b>Associate Provost for the Broward Campuses</b> , Florida Atlantic University 2011- present <b>Professor</b> School of Architecture, Florida Atlantic University 2005- 2011 <b>Director</b> Broward Community Design Collaborative, Florida Atlantic University
Licensure/Certifications	1985-present <b>Professional Certification</b> National Council of Architectural Registration Boards, number 36428 1985-present <b>Registered Architect</b> (RA), State of Florida, license number AR11825 2006-present <b>Registered Architect</b> (RA), State of New York, license number 0320571
Honors + Awards 5 years	2017 <b>AIA Florida Honor Award</b> . Jeffrey Huber AIA (PI), Anthony Abbate, et.al.. ADaPT Adaptation Design and Planning Tool for Urban Areas in the Coastal Zone. Fort Lauderdale North Beach. 2014 <b>AIA Fort Lauderdale Educator of the Year Award</b> . 2014 <b>AIA Florida William G. McMinn Award for Outstanding Contributions to Architectural Education</b> . 2014 <b>ACSA Service Award</b> , for contributions to architectural education and ACSA, Association of Collegiate Schools of Architecture, ACSA, Washington, DC.
Research Funded Research Grants 5 years	FEMA <i>Watershed Master Planning Initiative Pilot Program, Phase One</i> . Source: Federal Emergency Management Agency (FEMA). July 1, 2019 - August 31, 2020. Frederick Bloetscher (PI), NCHRP 20-117 <i>Deploying Transportation Resilience Practices in State DOTs</i> . Source: Transportation Research Board - NCHRP. Jeffrey Huber (PI) NOAA Florida Sea Grant. <i>ADaPT Adaptation Design and Planning Tool for Urban Areas in the Coastal Zone</i> . 2015-2017
Creative Activity Publications Presentations 2 years	<b>An Architectural Walking Tour of Downtown Fort Lauderdale (3rd Ed.)</b> . Anthony Abbate, Editor. 2018. <b>Building for Sea Level Rise</b> . Anthony Abbate. Featured guest interview. Sundial with Luis Hernandez. <i>National Public Radio - Miami (WLRN)</i> . 10.23.2017. <b>Anthony Abbate</b> . Presenter. "Climate and Sense of Place." Faculdade de Arquitectura e Planeamento Fisico. Universidade Eduardo Mondlane, Maputo, Mozambique. 09.17.2019. <b>Anthony Abbate</b> . Presenter. "Wicked Water: The Challenge to Design for Future Flooding and Rising Sea Level." AIA Florida Convention, Ponte Vedra, Florida. 07.21.2018. <b>Anthony Abbate</b> , guest speaker, "Shaping our environment" Leadership Fort Lauderdale History Day. Fort Lauderdale, Florida. 10.08.2019. <b>Anthony Abbate</b> , guest speaker, "Urban planning like opera is better than it sounds - the Fort Lauderdale Comprehensive Plan Update: We are mediocre and we are good at it." Fort Lauderdale Council of Civic Associations, Fort Lauderdale, Florida. 05.14.2019 <b>Anthony Abbate</b> , co-presenter, with Colin Polsky, Ph.D. "Making a Wetter Florida a Better Florida." Osher Lifelong Learning Series, Osher-FAU Lifelong Learning at Fort Lauderdale. 03.26.2019 <b>Anthony Abbate</b> . Panelist. "Pioneering Climate Resilience through Regional Action: the Southeast Florida Regional Climate Compact" 6th International Conference: Tropical Storms as a Setting for Adaptive Development and Architecture. International Network of Tropical Architecture (iNTA). University of Florida. Gainesville, Florida. 12.02.2017. <b>Anthony Abbate</b> . Panelist. "Keeping Current: A Sea-Level Rise Challenge for Greater Miami" University Research Summit. Van Alen Institute. University of Miami. Coral Gables, Florida. 11.16.2017. <b>Reviewer</b> . Review of manuscript for the journal: <i>Symmetry: Culture and Science</i> . Budapest, Hungary. 09.2019
Service Memberships Current	<b>Board Member</b> , DoCoMoMo Florida. (2008-present) <b>President</b> . The Tower Forum. (2019-2020) <b>Board Member</b> . Hispanic Unity of Florida (2019 - present) <b>Member</b> . Historic Preservation Board. Broward County Board of County Commissioners appointment (2019- present) <b>Lifetime Member</b> . Leadership Florida, Graduate of Class XXXVII (2019-present) <b>President</b> , Fort Lauderdale Rotary 1090 Foundation, (2018-present) <b>Member</b> . Broward Business Council on Homelessness. United Way of Broward County. (2018-present) <b>Co-Chair</b> . Coastal Resiliency Committee. Greater Fort Lauderdale Chamber of Commerce (2017-present) <b>Sociedad Colombiana de Arquitectos</b> , Seccional Florida, honorary member. (2004-present) <b>Member</b> . Urban Land Institute Member (1999-2002) (2014-present) <b>Member</b> . American Institute of Architects (1985-present), Chapter President (1994), State Director (1995-1997)
Languages	English (native); Spanish (fluent)

## DANIEL BOLOJAN

M.Arch PhD Research Fellow  
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### PERSONAL SUMMARY

Vienna based Computational Designer, Lecturer, Researcher, Machine Learning, Neural Networks Enthusiast and Architect.

Daniel received his Master of Architecture Degree from University of Applied Arts, Institute of Architecture, Studio Zaha Hadid, where he also had a role as Research Student Assistant teaching Processing, Mel scripting and Grasshopper3d.

In 2013, he founded his own research studio: Nonstandardstudio. The studio has its focus on generative strategies (growth processes, multi-agent systems, creative AI, neural networks) that target the creation of highly complex autopoietic systems that offer new opportunities for architectural organization, articulation and signification.

Since 2014 he is a Junior Associate/Computational Design Specialist and Head of Chbl|code with Coop Himmelb(l)au, where he has the leading role of developing custom computational tools, computational design strategies, virtual and augmented reality applications, machine learning and neural networks applications, as well as robotic fabrication processes. At Coop Himmelb(l)au he had the opportunity to practice on numerous renowned international projects and competitions.

Over the years he taught several workshops dealing with application of complex systems and Machine Learning and Neural Networks in architectural design.

Since 2016 he has been an External Lecturer at I.s.d Institute of Structure and Design, Innsbruck University, and a Research Fellow at University of Applied Arts, Institute of Architecture under the supervision of Research Leader Patrik Schumacher. In 2018, he held the position of Visiting Assistant Professor at Florida International University, Miami USA.

He is currently a PhD Candidate at University of Applied Arts Vienna, under the supervision of Dr.phil, Dipl.Ing, ARB, RIBA Patrik Schumacher.

### EDUCATION

03.01.17 - PRESENT	- Ph.D. CANDIDATE - University of Applied Arts	VIENNA, AT
10.01.10 - 01.27.14	- BA+MASTER OF ARCHITECTURE - University of Applied Arts, Studio Zaha Hadid	VIENNA, AT
10.01.08 - 06.25.09	- ERASMUS STUDENT - Faculty of Architecture Ljubljana	LJUBLJANA, SLO
10.01.05 - 06.25.08	- BA University of Architecture and Urbanism	BUCHAREST, RO

### PRACTICE EXPERIENCE

04.10.15 - PRESENT	- JUNIOR ASSOCIATE, COMPUTATIONAL DESIGN SPECIALIST HEAD OF CHBL CODE - Coop Himmelb(l)au	VIENNA, AT
04.10.14 - 04.10.15	- JUNIOR DESIGN ARCHITECT, COMPUTATIONAL DESIGNER, AR AND VR - Coop Himmelb(l)au	VIENNA, AT
04.10.13 - PRESENT	- FOUNDER OF NONSTANDARDSTUDIO	VIENNA, AT
07.01.12 - 09.30.13	- JUNIOR DESIGNER, COMPUTATIONAL DESIGNER - Wolfgang Tschapeller	VIENNA, AT
07.01.11 - 11.30.11	- JUNIOR DESIGNER, COMPUTATIONAL DESIGNER - Soma Architecture	VIENNA, AT
01.10.09 - 10.31.09	- JUNIOR DESIGNER - Coop Himmelb(l)au	VIENNA, AT

### TEACHING EXPERIENCE

09.09.19 - 09.10.19	- AI WORKSHOP LECTURER - eCAADe Conference	PORTO, PT
08.13.18 - 12.25.18	- VISITING ASSISTANT PROFESSOR - Florida International University	MIAMI, USA
04.04.18 - 04.08.18	- WORKSHOP LECTURER - GSD Harvard University	BOSTON, USA
03.01.17 - 06.27.19	- EXTERNAL LECTURER - Innsbruck University - I.s.d Institute of Structure and Design	INNSBRUCK, AT
03.01.17 - 09.30.17	- LECTURER - D.R.E.A.M (Design and research in advanced manufacturing) Academy	NAPOLI, ITALY
07.15.13 - 07.27.13	- CO-DIRECTOR, LECTURER AND ORGANIZER Studio Zaha Hadid Visiting School	TIMISOARA, RO
03.01.12 - 01.27.14	- RESEARCH STUDENT ASSISTANT - University of Applied Arts, Studio Zaha Hadid	VIENNA, AT

### RESEARCH EXPERIENCE

03.01.17 - PRESENT	- Ph.D. CANDIDATE - University of Applied Arts	VIENNA, AT
10.01.16 - 03.31.19	- RESEARCH FELLOW - Agent Based Parametric Semiology- University of Applied Arts	VIENNA, AT

### PRESENTATIONS AND EXHIBITIONS

2019	- University of Applied Arts - Research Symposium - Agent Based Parametric Semiology
2019	- Institute of Structure and Design Innsbruck - "Agent Based Creative AI's" Lecture
2019	- Florida Atlantic University - "Agent Based Creative AI's" Lecture
2018	- AADR - Architectural Association Exhibition - "Agent Based Parametric Semiology"
2018	- Florida International University - "Sematectonic Fields" Lecture
	- Other speakers: Areti Markopoulou, Mitchell Joachim, Claudia Pasquero, Achim Menges, Max Zolkwer, So-IL
2018	- Innsbruck University - I.s.d Institute of structure and design - "Sematectonic Fields" Lecture
2017	- Ai Lab Vienna - "AI in Agent Based Parametric Semiology" Lecture
	- Interdisciplinary conference of AI based research in Vienna
2017	- TAB Talin Exhibition - Nonstandardterritories studio projects
2017	- Fibrous Agency - "Agent Based Models" Lecture
2016	- Rese-arch Meetup Conference - "Sematectonic Fields" Lecture
	- Other speakers: Neil Leach, Eflena Baseta, Phil Ayres, Francesco Cingolani, Klaas De Rycke, Behnaz Farahi, Justyna Swat, Jan Pernecky
2016	- Architecture Nights Bratislava - "Sematectonic Fields" Lecture
2015	- Digitalism.Architecture1906 Magazine - Review Nonstandardstudio projects
2013	- Venice Biennale - Olympic Village Project - Zaha Hadid Studio
2013	- Experimental Architecture Prague - Olympic Village Project - Zaha Hadid Studio
2012	- Olympic Village Project   Evolo Publication   Archdaily Publication   DesignBoom Publication
2010	- Floral Entities   Kismet Magazine 6th issue

**andrew m. hayes** | aia, ncarb, leed ap



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Florida Atlantic University  
Downtown Broward Campus  
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**abstract** Andrew is an Instructor in Urban Design and Architecture studio courses as well as the professional practice sequence at Florida Atlantic University. He also leads the Institute for Design and Construction, an auxiliary unit providing innovative professional development courses. He also developed an elective titled Scales of Resilience: Cities, Superstorms and the Anthropocene. His professional work has received multiple awards, been published in periodicals and featured in various on-line design magazines. In 2015 Andy served as President of AIA-Florida, the fifth largest AIA component in the United States, setting an agenda of resilience and relevance. He has regularly been involved in advocacy efforts throughout his career on issues regarding smart growth, urban design, community resilience and ecological sensitivity; serving regularly on local and regional planning and design boards as well as non-profit organizations. He is a LEED accredited professional and holds an NCARB certificate with current architectural licensure in Florida and past licensure in Hawaii, Louisiana, North Carolina and Texas.

**education** Master of Science - Architecture + Urban Design, 2016, Virginia Polytechnic Institute and State University - WAAC  
Bachelor of Architecture, 1994, University of Hawaii

**academic affiliations** Florida Atlantic University, School of Architecture  
Instructor, Urban Design & Comprehensive Design Studio, Professional Practice & Resilience Elective, 2016 - Present

Temple University, Tyler School of Art & Architecture  
Visiting Adjunct Professor, Urban Design Studio & Thesis Research Advisor, 2015-2016

University of South Florida, School of Architecture & Community Design  
Markborough Endowed Chair (shared), Adjunct Professor, 2013-2016  
Urban Design Studio, Resilience Seminar

International Academy of Design & Technology, Tampa, Interior Design Department  
Adjunct Professor, Interior Architecture Studio & Computer Aided Design, 2003-2005

University of South Florida, School of Architecture  
Visiting Assistant Professor, Comprehensive Studio & Professional Practice, 1998-2000

Honolulu Community College, Architectural Technology Department  
Lecturer, Core Design Studio & Building Technology I, 1994-1996

**invited presentations** Resilient Redesign II – Southeast Florida Climate Change Regional Compact  
Key West Charette, Design Team Leader & Presenter, 2015

Arts Communities as Catalyst for Adaptive Re-use & Economic Development  
Florida Main Street Annual Conference, 2015

Energizing Main Street – Lessons from East London & Edinburgh  
Florida Main Street Annual Conference, 2014

# Joel Hopler

## Curriculum Vitae

### Joel Hopler

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<https://www.joelhopler.com/>

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#### Art Exhibits:

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**2018:** "One Night Stand", exhibition curated by Joel Hopler, Lindsay Metivier, Carley Zarzeka - Golden Belt Art Center - Durham, NC  
**2018:** "Untitled, 2018", exhibition curated by Diego Cortez - John and June Allcott Gallery, Hanes Art Center - Chapel Hill, NC  
**2018:** "Are We There Yet?", thesis show - John and June Allcott Gallery, Hanes Art Center - Chapel Hill, NC  
**2018:** "Versus" (UNC MFA Group Show) - Ackland Museum - Chapel Hill, NC  
**2018:** Incubator Award Showcase (group show) - Chapel Hill, NC  
**2017:** Durham Arts Guild (Group Show, Awarded 3rd place) - Durham, NC  
**2017:** 3 Commissioned paintings for Hopkin' Beer Hall - Charlotte, NC  
**2017:** "An Intangible Analysis" (solo show) John and June Allcott Gallery, Hanes Art Center - Chapel Hill, NC  
**2017:** Warehouse 242 (solo show) - Charlotte, NC  
**2017:** "The Anxious Condition" (Group Show) - Anchorlight Gallery - Raleigh, NC  
**2017:** "Soft Nostalgia" (Group Show) - Bowbarr - Chapel Hill, NC  
**2017:** "Materia – A Temporal Collaboration at Three Atypical Sites" (Group Show) - Chapel Hill, NC  
**2017:** MFA Auction (Group Show) - LIGHT: Art + Design Gallery - Chapel Hill, NC  
**2017:** "Of Paper" (Group show curated by Joel Hopler) - Alcott Hallway Gallery, Chapel Hill, NC  
**2016:** Live Art, Workshop and Artist Talk - Nelson Atkins Museum of Art, Kansas City, MO  
**2016:** MFA Graduate Students Welcome Show (Group Show) - Alcott Hallway Gallery, Hanes Art Center, Chapel Hill, NC  
**2016:** Johnson County Library (Group Show) - Gardner, KS  
**2016:** Kauffman Foundation (group show) - Kansas City, MO  
**2015:** Hosted Artist Talk and Art Show at Deaf Cultural Center - Olathe, MO  
**2015:** Resurrection Downtown (Solo Show) - Kansas City, MO  
**2015:** Resurrection Downtown (Performance Art/Live Painting) - Kansas City, MO  
**2015:** The Sundry, Kansas City, MO (May, June, July First Friday openings)  
**2015:** Joel & Emily Hopler Art Show at Warehouse 242 - Charlotte, NC  
**2014:** Permanent collection at Circle University Apartments - Charlotte, NC  
**2014:** Performance Painting at The Evening Muse - private event - Charlotte, NC  
**2014:** Slate Interiors Featured Gallery Artist - Charlotte, NC  
**2014:** Warehouse 242 - Performance Art (Live painting) - Charlotte, NC  
**2014:** Warehouse 242 - Group Art Show - Charlotte, NC

*Please contact for exhibitions 2013 and previous.*

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#### Educational And Fine Art Experience:

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**2019:** FabLab Coordinator and Technology Specialist at Florida Atlantic University, School of Architecture  
**2018:** Instructor at UNC Chapel Hill, Beginning Painting  
**2017:** Recipient of Incubator Award: Research Grant for Creative Artists  
**2017:** Instructor at UNC Chapel Hill, Life Drawing Course  
**2017:** Team Leader, Safety Orientation Officer, BeAM (Be A Maker), Makerspace at UNC Chapel Hill  
**2016:** Graduate Assistant at BeAM, Makerspace at UNC Chapel Hill  
**2016:** Teaching Assistant at UNC Chapel Hill  
**2015:** Sculpture Restoration (Metalabs), Kansas City, MO  
**2013 - 2015:** Art Installation (Independent Contractor with Eric Olsen, LTD), Charlotte, NC  
**2013 - 2014:** Slate Interiors (vender), Charlotte, NC  
**Freelance Work (current):** Commissioned Fine Art, Mural, Illustration, Art Installation

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#### Education:

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**2016 - 2018:** MFA Graduate Student, UNC Chapel Hill  
**2004 - 2008:** UNC Charlotte BFA - Painting

**FRANCIS ELLIOT LYN, Associate Professor, Associate Director, FAU School of Architecture**

## **EDUCATION**

**Master of Architecture**, Princeton University School of Architecture, Princeton, New Jersey, 1995

**Bachelor of Architecture**, University of Miami School of Architecture, Coral Gables, Florida, 1990

## **TEACHING and ADMINISTRATIVE EXPERIENCE**

Associate Director Florida Atlantic University School of Architecture, Fort Lauderdale, FL, 2017-Present  
Associate Professor Florida Atlantic University School of Architecture, Fort Lauderdale, FL, 2010-Present  
Assistant Professor Florida Atlantic University School of Architecture, Fort Lauderdale, FL, 2004-2010  
Assistant Professor University of South Florida School of Architecture and Community Design, 2002-2004  
Adjunct Professor Florida Atlantic University School of Architecture, Fort Lauderdale, FL, 2001  
Adjunct Professor Florida International University School of Architecture, Miami, FL 1999-2001  
Full Time Faculty Broward Community College, Fort Lauderdale, FL, 2000-2001  
Associated Faculty University of Miami, Coral Gables, FL 1995-2000  
Director MetroLAB Collaborative, 2011-2018  
Acting Director Florida Atlantic University School of Architecture, Fort Lauderdale, FL, Summer 2011, Summer 2012

## **PROFESSIONAL EXPERIENCE**

Francis Lyn Design Studio, Miami and Fort Lauderdale, Florida, 1997-2006

Hernandez and Lyn, Joint Venture, Miami, FL, 1995-2000

Jorge L. Hernandez, Architect, Coral Gables, FL, 1989-1993, 1995-1997

Kha Le-Huu and Partners, Orlando, FL, 1994-1995

## **ACADEMIC and PROFESSIONAL HONORS**

Service Award ACSA, for recognition of contributions to architectural education and ACSA, 2014  
Teacher of the Year College of Architecture, Urban and Public Affairs, FAU, 2010  
Service Award ACSA, for distinguished service to the Association as 2003 Regional Conference Co-Chair  
Merit Award AIA Florida Association, un-built project, "The Grand Egyptian Museum," (with A. Temkin and P. Magyar). 2003  
Award of Excellence AIA, Ft. Lauderdale Chapter, un-built project, "The Grand Egyptian Museum," (with A. Temkin and P. Magyar). 2002  
Award of Excellence AIA, Ft. Lauderdale Chapter, un-built project, "Graphisoft Conference Center," (with A. Temkin and P. Magyar). 2002  
First Place Hernandez, Jorge and Francis Lyn. *Williamsburg Courthouse Competition*, Williamsburg, Virginia. 1995.  
Building completed and occupied 2000.

## **SERVICE ACTIVITIES (Abbreviated)**

ACSA Education Committee Chair 2018 - 2019  
ACSA Gulf Regional Director 2015-2018  
ACSA Faculty Councilor. 2004-2017, 2019- present  
FAU School of Architecture Thesis Phase Coordinator. 2011 – 2017  
ACSA Fall & Sub-Tropical Cities Conference Co-Chair, FAU, 2013  
ACSA Southeast Regional Conference Co-Chair, USF, 2003  
ACSA Representative for NAAB Accreditation Team (selected and awaiting placement)  
ACSA Session Moderator and Paper Reviewer, various conferences  
FAU Accreditation Team Room Co-coordinator, 2004 and 2010  
AIAS Faculty Advisor. 2005-2009.  
Numerous and varied School, College and University Committees, 2004-present.  
Invited Juror, Various School.

## **SELECTED RESEARCH or GRANTS & CONTRACTS**

Lyn, Francis, P.I., City of Fort Lauderdale Lifeguard Stand Visioning Study ~\$10,000 Contract awarded to FAU. 2017-2018  
Lyn, Francis, P.I., Lauderdale By The Sea – Civic Center Visioning Study ~\$18,000 Contract awarded to FAU. 2015-2016  
Lyn, Francis, P.I., National Endowment for the Arts Our Town Grant – Pembroke Pines Civic Center Arts and Culture Planning and Design Project.  
Sub-Partner. \$50,000 grant awarded to Pembroke Pines, ~\$12,000 earmarked for FAU MetroLAB. 2014-2015  
Lyn, Francis, P.I., City of Fort Lauderdale Walkability Analysis Visioning Study. ~\$5000 Contract Awarded to FAU MetroLAB. 2014-2015  
Lyn, Francis, P.I., City of Hollywood Visioning Study for SR7/US441 Transit Corridor. ~\$6200 Contract Awarded to FAU MetroLAB. 2014  
Lyn, Francis, P.I., City of Fort Lauderdale Transportation Station Visioning Study. ~\$4200 Contract Awarded to FAU MetroLAB. 2013  
Lyn, Francis, P.I., Broward Cultural Division Visioning Study for Public Art Work. ~\$3000 Contract Awarded to FAU MetroLAB. 2012  
Lyn, Francis. "Tradition, Color and Surface: Mediterranean Resonances in the Work of Erik Gunnar Asplund," in *Modern Architecture and the Mediterranean: Vernacular Dialogues and Contested Identities*, Jean-Francois LeJeune and Michelangelo Sabatino, eds. (London: Routledge Press, 2009), pp 224-243.  
Dulaney, Ronald Jr. and Francis Lyn. "Representational Craft and Production: Comparing the Value of Hand Drawing and Digital Media in Architectural Academies and Practices." *Design Principles and Practices: An International Journal*, Volume 4, Spring 2010, edited by Bill Cope and Mary Kalantzis.  
Lyn, Francis and Ron Dulaney, Jr. "A Case for Drawing." *Affecting Change in Architectural Education*, Architectural Research Centers Consortium (ARCC) Journal, Spring 2009, Edited by Leonard Bachman and Christine Bachman.  
Lyn, Francis. "Learning from Travel: Mediterranean Resonances in the Work of Asplund." *Regional Architecture and Identity in the Age of Globalization*, Volume 2, Proceedings from the 2007 CSAAR Conference, Tunisia, November 13-15 2007, edited by Jamal Al-Qawasame, Abdesselem Mahmoud, Ali Djerbi, pp. 751-762.  
Lyn, Francis. "Outside In: Blurred Boundaries in the Work of Erik Gunnar Asplund" *Fresh Air*, Proceedings from the 2007 ACSA National Conference, Philadelphia, PA, March 8-11, 2007, edited by Judith Bing and Catherine Veikos, pp 520-526.  
Dulaney, Ron, Francis Lyn and Stephen Schreiber, editors. *Finishing School: Inquiries into the Completion of an Architectural Education*, Proceedings from the ACSA SE Regional Conference of the same title, held in Tampa, FL, November 6-9, 2003.

**SHERMEEN YOUSIF**, Ph.D., Assistant Professor, FAU School of Architecture

#### EDUCATION

Ph.D. in Architecture, Texas A&M University-College Station, Texas, 2019  
M.Arch. DIA-Dessau Institute of Architecture, Anhalt University, Germany, 2009  
B.Sc. in Architectural Engineering, University of Baghdad, 2006

#### TEACHING EXPERIENCE

Florida Atlantic University Associate Professor of Architecture, 2019-Present  
Texas A&M University Assistant Lecturer/Professor of Record of Architecture, 2015-2019  
University of Duhok Lecturer of Architecture, 2009-2013

#### PROFESSIONAL EXPERIENCE

Architect and founding partner: Dahinan Office, Duhok, Iraq 2010-2013  
Intern Architect: ARC-Architektur Konzept Design Firm, Magdeburg, Germany, 2009  
Intern Architect: HSH-ARCHITEKTUR Design Firm, Berlin, Germany, 2008  
Architect and founding partner: ALHussein Architecture Office, Duhok, Iraq 2006-2007

#### SELECTED PUBLICATIONS

- **Yousif S.**, Yan W. (2019) *Shape Clustering Using K-Medoids in Architectural Form Finding*. In: Lee JH. (eds) *Computer-Aided Architectural Design*. "Hello, Culture". CAAD Futures 2019. Communications in Computer and Information Science, vol 1028. Springer, Singapore.
- **Yousif, S.**, & Yan, W. (2018). *Clustering Forms for Enhancing Architectural Design Optimization*. Paper presented at the Learning, Adapting and Prototyping, The 23rd Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA), Beijing, China. [http://papers.cumincad.org/cgi-bin/works/paper/caadria2018\\_257](http://papers.cumincad.org/cgi-bin/works/paper/caadria2018_257).
- **Yousif, S.**, Clayton, M., & Yan, W. (2018). *Towards Integrating Aesthetic Variables in Architectural Design Optimization*. Paper presented at the 106th ACSA Annual Meeting, The Ethical Imperative, The Association of Collegiate Schools of Architecture (ACSA), Denver, Colorado.
- **Yousif, S.**, Yan, W., & Culp, C. (2017). *Incorporating Form Diversity into Architectural Design Optimization*. Paper presented at the ACADIA 2017: DISCIPLINES & DISRUPTION [Proceedings of the 37th Annual Conference of the Association for Computer Aided Design in Architecture (ACADIA)], MIT, Cambridge, MA. [http://papers.cumincad.org/cgi-bin/works/paper/acadia17\\_640](http://papers.cumincad.org/cgi-bin/works/paper/acadia17_640).

#### CONFERENCE PRESENTATIONS

- Campagnol, G., Caffey, S., **Yousif, S.**, & Pariafsai, F. (2018). Digital Affect: Using Immersive Visualization to understand Lina Bo Bardi's MASP. Presented at the Annual Conference of the Southeast Chapter of the Society of Architectural Historians (SESAH), Manhattan, Kansas.
- **Yousif, S.** (2018). A Method for Incorporating Aesthetic Variables and Form Diversity into Architectural Design Optimization. Presented at the 2018 Building Performance Analysis Conference and SimBuild, Co-organized by ASHRAE and the International Building Performance Simulation Association (IBPSA)-USA, Chicago, IL.
- **Yousif, S.** (2017). Lowdown Showdown Building Energy Modeling Challenge, re+ro team. Poster presented at the ASHRAE Building Performance Modeling Conference 2017, Atlanta, GA.
- **Yousif, S.** (2016). Lowdown Showdown Building Energy Modeling Challenge, Newbie Energizers team captain. Poster presented at the ASHRAE and IBPSA-USA SimBuild 2016: Building Performance Modeling Conference, Salt Lake City, UT.

#### RECENT RESEARCH

- Researcher at the School of Architecture Florida Atlantic University, working on developing a model for designing a resilient community using building performance simulation and design optimization for adapting to sea-level rise in Broward county, 2019-present.
- Graduate Student Researcher for Professor Wei Yan, and PhD candidate at the Department of Architecture, Texas A&M University. Developed a new framework of a design optimization system that incorporates form clustering and formulated multiple computational design tools for improving form evaluation in the process. Published multiple peer-reviewed articles. In addition, researched building energy performance evaluation, LEED certification process, HVAC systems design, and design optimization methods, 2013-2019.

#### HONORS AND AWARDS

Unsung Hero Award, Office of Graduate and Professional Students, Texas A&M University (\$1000), 2018.  
Gracie J. and Paul M. Terrill, Jr. '57 Endowed Scholarship, Department of Architecture, Texas A&M University (\$1,700), 2018.  
Scholar Award, Texas A&M University (\$1000), 2018.  
TX Public Education Grant-Intl, Texas A&M University, (\$4,000), 2017-2018.  
Jonathan King Memorial Student Award, Texas A&M University, (\$1000), 2018.  
Association for Computer Aided Design in Architecture (ACADIA), Student Award, ACADIA conference 2017, MIT, Cambridge, MA (\$500), 2017.  
CRS Center Graduate Travel Award. Department of Architecture, Texas A&M University (\$500), 2017.  
Department of Architecture Scholarship, Texas A&M University (\$8000), 2014.  
Teaching Excellence Award. Department of Architecture, University of Duhok, 2011.  
Award for Master's Study in Germany, German Academic Exchange Service, DAAD, (\$50,000), 2007-2009.  
Honorary Award of Distinctive Final Project. Architecture Exhibition of Graduation Projects, Rabat, Morocco, 2007.

#### MEMBERSHIP | AFFILIATIONS

2017-Present. Member. The Association for Computer-Aided Architectural Design Research in Asia (CAADRIA)  
2017-Present. Member. Association for Computer Aided Design in Architecture (ACADIA).  
2017-Present. Member. Association of Collegiate Schools of Architecture (ACSA).  
2016-Present. Member. International Building Performance Simulation Association (IBPSA)-USA.  
2015-Present. Chair. BIM-SIM Research Group, Texas A&M University.  
2015-Present. Member. American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).  
2014-Present. Member. Architecture, Culture, and Spirituality Forum

## Materials and Methods of Construction II

Spring 2019 Syllabus

CRN12791 ARC3463 001 Materials and Methods of Construction 2 (3 Credits)

### Jeffrey Huber, AIA, NCARB, LEED ap

Associate Professor + Director, MetroLAB Collaborative, School of Architecture  
College for Design and Social Inquiry, Florida Atlantic University  
HEC 810 | [huberj@fau.edu](mailto:huberj@fau.edu) | 954.762.5372  
Office Hours: TU/ TH 8:30 -10:30am or by appointment

**Class Location and Time:** HEC 910 T | R 10:30AM – 11:50AM

**Course Description:** Building materials, their manufacture and assemblage, with emphasis on investigating the theories and practical applications of materials and tectonics to current studio projects. There is a strong focus on case studies of both contemporary and historical precedents.

**Course Objectives | Learning Outcomes | SPC:** Successful completion of this course indicates the student has demonstrated the following Student Performance Criteria (SPC) established by the National Architectural Accrediting Board (NAAB) 2014 Conditions for Accreditation and the FAU School of Architecture, as assigned to the curriculum by the faculty of the School of Architecture.

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

**B.7 NAAB SPC Building Envelope Systems and Assemblies:** Understanding of the basic principles involved in the appropriate selection and application of building envelope systems relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

**B.8 NAAB SPC Building Materials and Assemblies:** Understanding of the basic principles utilized in the appropriate selection of interior and exterior construction materials, products, components, and assemblies, based on their inherent performance, including environmental impact and reuse.

**FA.1 FAU SPC: Subtropical Sustainability:** Ability to analyze/design architectural/urban design projects that reduce the environmental impacts of building in a subtropical climate. Understand the directional nature of design, such as the future processes that may be set in motion by design decisions.

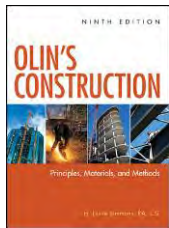
(A complete description of SPC may found on the NAAB website: <http://www.naab.org>)

**Course Prerequisites:** Admission to BArch program. In order to successfully complete this course, students should have achieved college level reading, writing, and comprehension skills, the ability to construct and analyze architectural models, and the ability to produce and analyze architectural graphics. ***This is a required course within the core curriculum and is placed in the second semester of study in the***



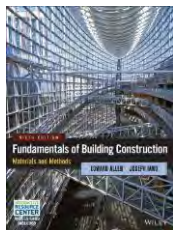
**professional degree program (B.Arch.) and requires a minimum of a “C” or better to successfully move forward in the program.** In order to successfully complete this course, students should have achieved college level reading, writing, and comprehension skills, the ability to construct and analyze architectural models, and the ability to produce and analyze architectural graphics.

### Required Texts/Readings:



H. Leslie Simmons  
*Olin's Construction: Principles, Materials, and Methods*, 9<sup>th</sup> Edition  
ISBN: 978-1-118-04361-5 e-Book (February 2012)  
ISBN: 978-0-470-54740-3 Hardcover (December 2011)  
1200 pages

### Additional Recommended Readings:



Edward Allen  
*Fundamentals of Building Construction: Materials and Methods*, 6<sup>th</sup> Edition  
ISBN: 978-1-118-13891-5 Hardcover (October 2013)  
1024 pages

Stewart Brand. *How Buildings Learn: What Happens After They're Built*. Penguin Books. 1995.  
Francis DK Ching. *Architectural Graphics*. Fifth Edition. Wiley & Sons. 2009.  
Francis D.K. Ching. *Building Construction Illustrated*. Fifth Edition. Wiley and Sons. 2014.  
*Architecture in Detail Series*. Phaidon Press Limited.  
Francis D.K. Ching, Steven R Winkel, FAIA. *Building Codes Illustrated: A Guide to Understanding the International Building Code®*. Fourth Edition. Wiley & Sons. 2012.  
Henry J. Cowan and Peter R. Smith, *Dictionary of Architectural and Building Technology*, Fourth Edition. Spon Press. 2004  
Andrea Deplazes, Ed., *Constructing Architecture. Materials Processes Structures: A Handbook*. Second Edition. Birkhäuser. 2008.  
Cecil D. Elliot, *Technics and Architecture*. MIT Press. 1992.  
Edward R. Ford. *The Details of Modern Architecture*. MIT Press. 1990.  
Edward R. Ford *The Details of Modern Architecture Vol. 2: 1928-1988*. MIT Press. 1996.

**Course Delivery Model:** All course information is available online on [Canvas](#). In addition there is a required minimum of 28 face-to-face (F2F) class meetings during the semester. These meetings correspond to dates and times listed in this syllabus and attendance required to pass the course. The meetings shall occur at the location and time on the dates found in the course schedule. ***The course may have field trips to construction sites during class times, as well as required attendance to all school lectures outside of regular class time.***

**Course Evaluation Method:** Your final grade will be based on the following weighted distribution:

Category	Weight	SPC
Participation & Presentation	10%	
Project 1	10%	B.4, B.7, B.8, FA.1
Project 2	20%	B.4, B.7, B.8, FA.1
Project 3	15%	B.4, B.7, B.8, FA.1
Attendance at Lectures	10%	
Mid-term Exam	15%	B.4, B.7, B.8, FA.1
Final Exam	20%	B.4, B.7, B.8, FA.1

Students are required to attend the F2F meetings as scheduled. Absence from a presentation will result in a grade of “F” for the assignment. The minimum grade required to pass the course is “C”.

**Grade Scale:** The course grading scale and alpha-numeric performance scale is as follows:

EXCELLENT WORK - ABOVE AVERAGE WORK - AVERAGE WORK					
A (4.00)	A- (3.67)		B+ (3.33)	B (3.00)	B- (2.67)   C+ (2.33) C (2.00)
(100-94)	(<94-90)		(<90-87)	(<87-84)	(<84-80) (<80-77) (<77-74)
----- MINIMUM PERFORMANCE THRESHOLD FOR B ARCH DEGREE SEEKING STUDENTS -----					
C- (1.67)		D+ (1.33)	D (1.00)	D- (0.67)	F (0.00)
(<74-70)		(<70-67)	(<67-64)	(<64-61)	(<61-0)
BELOW AVERAGE WORK - MARGINAL WORK - FAILING WORK					

**Course Attendance; Make Up and Incomplete/Late Work Policy:** Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. ***Students with an unexcused absence will receive a 3 point reduction to the final calculated grade for each class missed, and may subsequently fail the course. Excessive tardiness will not be tolerated and two late arrivals to class will be considered equal to one absence. The instructor will have a sign-in sheet available at the beginning of each class which will serve as the method of attendance keeping.***

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student’s responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student’s final course grade as a direct result of such absence.

***No late work will be accepted*** unless written authorization is provided to the student from the professor prior to the due date. Students must submit all assignments and coursework on the specified due date. After the due date the grade submission will be a “0” with no exceptions. Please note that students participating in University-approved activities (such as athletic events, theatrical or musical performances, etc.) will not be penalized, however prior written notification is to be given to the professor by faculty or staff responsible before due date.

Since the course is delivered with an online component, you are expected to access the course on Canvas, and check your FAU email account, at least two times per week to ensure you do not miss pertinent postings, messages, or announcements. It is imperative that you meet course deadlines. Failure to meet this obligation may be viewed as course abandonment, and you will be dropped from the course. Please be aware that a dropped course may affect your financial aid. Being dropped from the course is irrevocable, and you will not be re-instated. If you are experiencing major illnesses, absences due to university duties, or other serious issues, contact the instructor immediately to formulate a resolution (if possible). Notifying your instructors after the fact will not be sufficient to prevent being dropped.

## Course Schedule

(Note: this is subject to change during the course of the semester, please remember to check Canvas and your MyFAU email inbox for updates. **F2F = Face to face class meeting.**)

### Orientation to the Course (No F2F Meeting: JAN 08)

#### Module Objectives

1. Understand course objectives, assignments, and assessment expectations.
2. Ensure that you have access to the technological tools required and the textbook.

#### Module Assignments

1. Study the syllabus and course outline.
2. Create a personalized course calendar with reminders for all assignments. (Use whatever planning calendar you normally work with. If you do not have one, now is a good time to start one!)
3. **Assign** Project 1: *Precedent Research and Development of Outline Specifications*.

### Module 1: Role of the Architect and Sustainability (F2F: JAN 10, JAN 15-meet in MetroLAB, JAN 17-Field Trip)

#### Module Objective

1. Students will examine the fundamental role of the architect and the classification of materials used in construction and gain understanding of local and global knowledge as both a design and a professional issue in the sustainment of human habitat.

#### Module Assignments:

1. **Read** [Ch.1 1.1] pages 2-8; [Ch.1 1.5] pages 36-41; and [Ch.23 23.1-23.2] pages 1084-1094 in Olin's *Construction*.
2. **Review** Slide presentation

### Module 2: Codes and the Context for a Project (F2F: JAN 22, JAN 24\_JAN 25, LAWRENCE SCARPA LECTURE)

#### Module Objective

1. Students will survey the range of standards, codes, protocols and nomenclature system used in design and construction practice and consider the ethical implications for design professionals. Students will consider the regulatory elements of universal accessibility, fire-resistivity, and conventional tools used to assess building performance. This module also examines the elements of the physical context for a building project, the tools designers use to assess context, and conventions for defining a building site to develop a critical understanding of the relationship between the built environment, the physical environment, and the natural environment.

#### Module Assignments

1. **Read** [Ch.1 1.2-1.4] pages 8-36; [Ch.1. 1.6] pages 41-51; and [Ch.2 2.1] pages 56-64 in Olin's *Construction*.
2. **Review** Slide presentation

### Module 3: Foundation Systems (F2F: JAN 29\_JAN 28, ANA MILJACKI LECTURE)

#### Module Objective

1. Students will review the geotechnical considerations and types of foundation systems as well as the conventions for describing various substructures and methods of construction.

*Module Assignments*

1. **Read** [Ch.20 20.1-22.4] pages 1050-1081 in Olin's *Construction*.
2. **Review** Slide presentation
3. **Project 1 DUE Jan 29 at 10:30am**
4. **Read Project 2** Begin work on this assignment. It is recommended that this assignment be developed as you complete Modules 03 through 08.

**Module 4: Concrete (F2F: JAN 31, FEB 05)**

*Module Objective*

1. Students will survey the history, properties, and manufacture of concrete and pre-cast concrete; design considerations and materials and methods of construction.

*Module Assignments*

1. **Read** [Ch.3] pages 68-149 in Olin's *Construction*.
2. **Review** Slide presentation

**Module 5: Masonry (F2F: FEB 07)**

*Module Objective*

1. Students will survey the history, properties, and manufacture of masonry, including unit masonry and stone; design considerations and materials and methods of construction.

*Module Assignments*

1. **Read** [Ch.4] pages 152-243 in Olin's *Construction*.
2. **Review** Slide presentation

**Module 6: Metals (F2F: FEB 07, FEB 12)**

*Module Objective*

1. Students will survey the history, properties, and manufacture of metals, including iron, steel, aluminum and other metals and metal finishes; design considerations and materials and methods of construction.

*Module Assignments*

1. **Read** [Ch.5] pages 248-312 in Olin's *Construction*.
2. **Review** Slide presentation

**Module 7: Wood and Plastics (F2F: FEB 14, FEB 19\_FEB 18, BRANKO/PARLAC LECTURE)**

*Module Objective*

1. Students will survey the history, properties, and manufacture of wood and plastics; design considerations and materials and methods of construction.

*Module Assignments*

1. **Read** [Ch.6] pages 316-422 in Olin's *Construction*.
2. **Review** Slide presentation

**Mid-Term Examination (F2F: FEB 21)**

1. **Review** all readings to date
2. **Review** slide presentations

**Module 8: Thermal Concepts and Envelope systems (F2F: FEB 26, FEB 28)**

*Module Objective*

1. Students will consider the principles of moisture control and survey the properties and manufacture of insulation and moisture management systems; architectural design considerations, and materials and methods of construction.

*Module Assignments*

1. **Read** [Ch.7 7.1-7.5] pages 426-8; [Ch.7 7.7] pages 502-521; and [Ch.7 7.12-7.13] pages 545-555 in Olin's *Construction*.
2. **Review** Slide presentation

#### **Module 9: Roofing systems (F2F: MAR 12, MAR 14\_MAR 11, RAFI SEGAL LECTURE)**

##### *Module Objective*

1. Students will survey the history, properties, and consider the characteristics of steep (high) and low-slope roofing systems; design considerations and materials and methods of construction.

##### *Module Assignments*

1. Read [Ch.7 7.8] pages 521-540; [Ch.7 7.6] pages 458-502; and [Ch.7 7.10] pages 540-545 in Olin's *Construction*.
2. **Review** Slide presentation
3. **Project 2 DUE MAR 12 at 10:30am**
4. **Read Assignment 3** Begin work on this assignment. It is recommended that this assignment be developed as you complete Modules 09 through 13.

#### **Module 10: Fenestration systems (F2F: MAR 19, MAR 21)**

##### *Module Objective*

1. Students will survey the history, properties, types, operation, and manufacture of door, storefront and window systems; architectural design considerations and materials and methods of construction.

##### *Module Assignments*

1. Read [Ch.8 8.1-8.4] pages 562-583; [Ch.8 8.6-8.9] pages 590-615 in Olin's *Construction*.
2. **Review** Slide presentation

#### **Module 11: Glass and Curtain Walls (F2F: MAR 26, MAR 28\_MAR 25, BRIAN GOLDSTEIN LECTURE)**

##### *Module Objective*

1. Students will survey the history, properties, and manufacture of wood and plastics; architectural design considerations and materials and methods of construction.

##### *Module Assignments*

1. Read [Ch.8 8.5] pages 583-590; and [Ch.8 8.10] 615-633 in Olin's *Construction*.
2. **Review** Slide presentation

#### **Preliminary Presentation of Project 3 (F2F: APR 02)**

Redline review of drawings with instructor (IN CLASS or BY APPOINTMENT, as assigned)

#### **Module 12: Photovoltaic Systems (F2F: APR 04)**

1. **Review** Slide presentation

#### **Module 13: Finish systems (F2F: APR 09, APR 11\_APR 09, NADER TEHRANI LECTURE)**

##### *Module Objective*

1. Students will survey the characteristics, properties, and manufacture of a variety of interior and exterior finishing systems; architectural design considerations and materials and methods of construction.

##### *Module Assignments*

1. Read [Ch.9] pages 640-819 in Olin's *Construction*.
2. **Project 3 DUE APR 09 at 10:30am**

#### **Final Presentation of Project 3 (F2F: APR 16, APR 18)**

Post drawings at the assigned location for final review

(GROUP 'A' EXHIBITS APR 16; GROUP 'B' EXHIBITS APR 18)

**Summary Module** (ONLINE: No F2F during Reading Days APR 23-24)

**Final Examination** (F2F: APR 25 8:45-10:15am)

**Special Requirements:** Students should budget an amount (not in excess of \$ 50.00) for the purchase of hard hats and materials needed to complete the course. We will have field trips during class and students will be notified by instructor at least one week prior. Students will be asked to meet instructor at construction site.

**Classroom Etiquette Policy/Netiquette:** Due to the casual communication common in the online environment, students are sometimes tempted to relax their grammar, spelling, and/or professionalism; however, remember you are aspiring professionals—your communication should be appropriate. ***You are expected to use correct spelling and grammar and write in complete sentences.*** Also, please note that in the online environment you do not have the advantage of voice inflection or gestures. As a result, sarcasm can come across very negative, so this form of communication should be avoided. When conducting peer reviews or responding to classmates' posts, remember that you are responding to the ideas of the writer: keep your communication professional and on-topic.

**Counseling and Psychological Services (CAPS) Center:** Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

**Disability Statement:** In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at [www.fau.edu/sas/](http://www.fau.edu/sas/).

**Code of Academic Integrity Policy:** Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see the Code of Academic Integrity in the University Regulations at [http://www.fau.edu/regulations/chapter4/4.001\\_Code\\_of\\_Academic\\_Integrity.pdf](http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf).

**Credit Hour Policy:** Outside of class time, it is expected that, on average, each student will work a minimum of 8 hours per week on readings, assignments, study groups or projects.

**Email Policy and Course Related Questions:** Email is the preferred method to contact your instructor. Except for Saturdays, Sundays, and holidays, the instructor will respond to messages generally within 24 hours. Such messages should only be used to communicate personal or confidential matters; otherwise, use the Discussion Board within Canvas. Post course-related questions to the Discussion Board within Canvas. Asking course-related questions in this way allows other students with the same question to

benefit from the responses. Also, make sure you review this discussion board prior to posting a question; it may have already been asked and answered in previous posts. If you ask a question via email and it is better suited for the discussion board, you will be asked to post the question there.

**Support Services and Resources:** If you attend this class regularly, take good notes, read the information in the modules and the assigned textbook readings, and complete the assignments, you should succeed. If you are having problems understanding lectures, reading assignments, or having difficulty with exams or quizzes, please see your instructor during office hours or contact your instructor via e-mail. It is imperative that you contact your instructor early in the term if you are having problems with this course. **Do not wait until after mid-term to seek assistance.**

If you need individualized help or tutoring in reading, writing, taking notes, or other academic issues, please see one of the help centers listed below.

[Office of Information Technology Help Desk](#)

[FAU Libraries Website](#)

[Center for Learning and Student Success Website](#)

[University Center for Excellence in Writing](#)

[Office of Undergraduate Research and Inquiry](#)

[Office of International Programs](#)



# ARC3463 Materials and Methods of Construction 2

Associate Professor Huber\_Spring 2019

## Project #1

## Precedent Research and Materials Study

**DUE TUESDAY January 29, 10:30am**

*“Materiality in architecture is the concept of, or applied use of, various materials or substances in the making/construction of buildings.”*

We begin our precedent research looking at the materiality of specific projects and where you will need to consider the full range of materials for structural, enclosure and exterior/interior finishes. You will organize the research into a Precedent Report and Outline Specification utilizing the appropriate and applicable CSI MasterFormat™ Sections. Discussions on the materiality of architecture are usually synonymous with structural and aesthetic concerns in architectural design and are typically unique with each project. We are only looking to research major project materials that make up structural, enclosure (skin) elements, and finishes; so there is no need to discuss, wiring, mechanical equipment, plumbing fixtures, etc. Keep to the skin, finishes and structure. This is a creative endeavor so the design layout and organization is entirely up to each team to decide how to graphically present this information, the only requirement is that it be printable and in an 8.5x11 vertical format. Teams can draw diagrams, use images, and write about the material and assembly methods within the chosen precedents. I will be available for assistance during office hours, by appointment, or directly before or after class time.

### Documentation Requirements:

Working in teams of three, students will develop a Precedent Case Study Report that contains the following information:

- report cover
- first spread (right side): photo of the overall project, name of project, the architect, location and the type of construction method used with short description.
- following spreads (quantity changes based on your particular precedent):
  - 1) explain overall project concept and locale, take as many spreads as you need for overall project understanding.
  - 2) Show a wall section (image you find during research) and label each material.
  - 3) illustrate materials used, including one project image showing its use within the building and a detailed photo of the material isolated. Provide a short paragraph explaining the material, its characteristics, manufacturing process, costs, durability (longevity and life cycle), and any other information you deem important in the research of the material.
  - 4) using the CSI MasterFormat™, develop an outline specification for the precedent

Again, it is up to you how you would like to organize the Precedent Case Study Report, but it should reasonably unpack the building and have coherent organization.

**All files will be submitted to the professor via Canvas by 10am January 29th.** The file name should start with your last names, the name of precedent, and project 1 (see below for example).

Example of file labeling: *cabral.roethlisberger\_KimballArtMuseum\_Project 1*

### Precedent List:

De Young Museum\_Herzog & de Meuron  
1111 Lincoln Road\_Herzog & de Meuron  
Perez Art Museum Miami\_Herzog & de Meuron  
Museum of Image and Sound\_Diller Scofidio + Renfro  
Capsel Hotel\_Kisho Kurokawa  
Palace of Labor\_Pier Luigi Nervi  
Kanagawa Institute of Technology\_Junya Ishigami + Associates  
Salk Institute for Biological Studies\_Luis Kahn  
Broward County Main Library\_Marcel Breuer  
Barnard College Diana Center\_Weiss/Manfredi

Melbourne School of Design\_NADAAA  
Vitruvius\_Herzog & de Meuron  
Rolex Learning Center\_SANAA  
Seattle Central Library\_OMA / LMN Architects  
The Mountain Dwellings\_BIG  
Clyfford Still Museum\_Allied Works  
Sendai Mediatheque\_Toyo Ito & Associates  
Cooper Square\_Morphosis  
Asakusa Culture and Tourism Center\_Kengo Kuma  
Museum Tower\_Zaha Hadid Architects



# ARC3463 Materials and Methods of Construction 2

Associate Professor Huber\_Spring 2019

## Project #2

## Precedent Research and Materials Study

**DUE TUESDAY February 19, 10:30am (pin-up in MetroLAB)**

*“Materiality in architecture is the concept of, or applied use of, various materials or substances in the making/construction of buildings.”*

Our second assignment in precedent research will look at how structural and enclosure materiality are considered throughout the building. You will develop a key building section of your precedent that cuts through an important spatial and material construct. Discussions on the materiality of architecture are usually synonymous with structural and aesthetic concerns in architectural design and are typically unique within each project. The section must investigate what is the make up of structural, enclosure (skin) elements, and finishes while showing clear understanding of where building services such as electrical and mechanical equipment, plumbing fixtures, etc are housed. This is a creative endeavor so the building section and graphic organization is entirely up to each team to decide, however the scales amongst all eleven precedent studies will be the same as indicated below. Teams can draw accessory diagrams, use images, and write about the material and assembly methods on the drawing. I will be available for assistance during office hours, by appointment, or directly before or after class time.

### Documentation Requirements:

Working in teams, students will develop a Precedent Case Study Building Section that contains the following information:

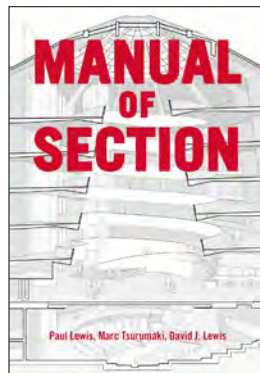
- key building section indicating primary spatial, structural, and material ideas (this may be a section or section perspective, section perspectives will get additional points)
- section should be drawn at 1/16"=1'-0" scale.
- drawing should only be in black and white (grey tones, shading, pattern and textures are acceptable) NO COLOR!
- using the CSI *MasterFormat™*, note outline specifications within the building section of major material elements
- provide specification information (show photos and have an explanation based on CSI *MasterFormat™*) in three parts; *Part 1 General*, *Part 2 Products*, and *Part 3 Execution*. Refer to Arcat website at [www.arcat.com](http://www.arcat.com) or other free online resource for specifications that can help you develop this. We are not looking to get overly detailed, but rather have a general understanding of how specifications are developed and the divisions, subdivisions and parts of them. This can be to one side or the bottom of your drawing.

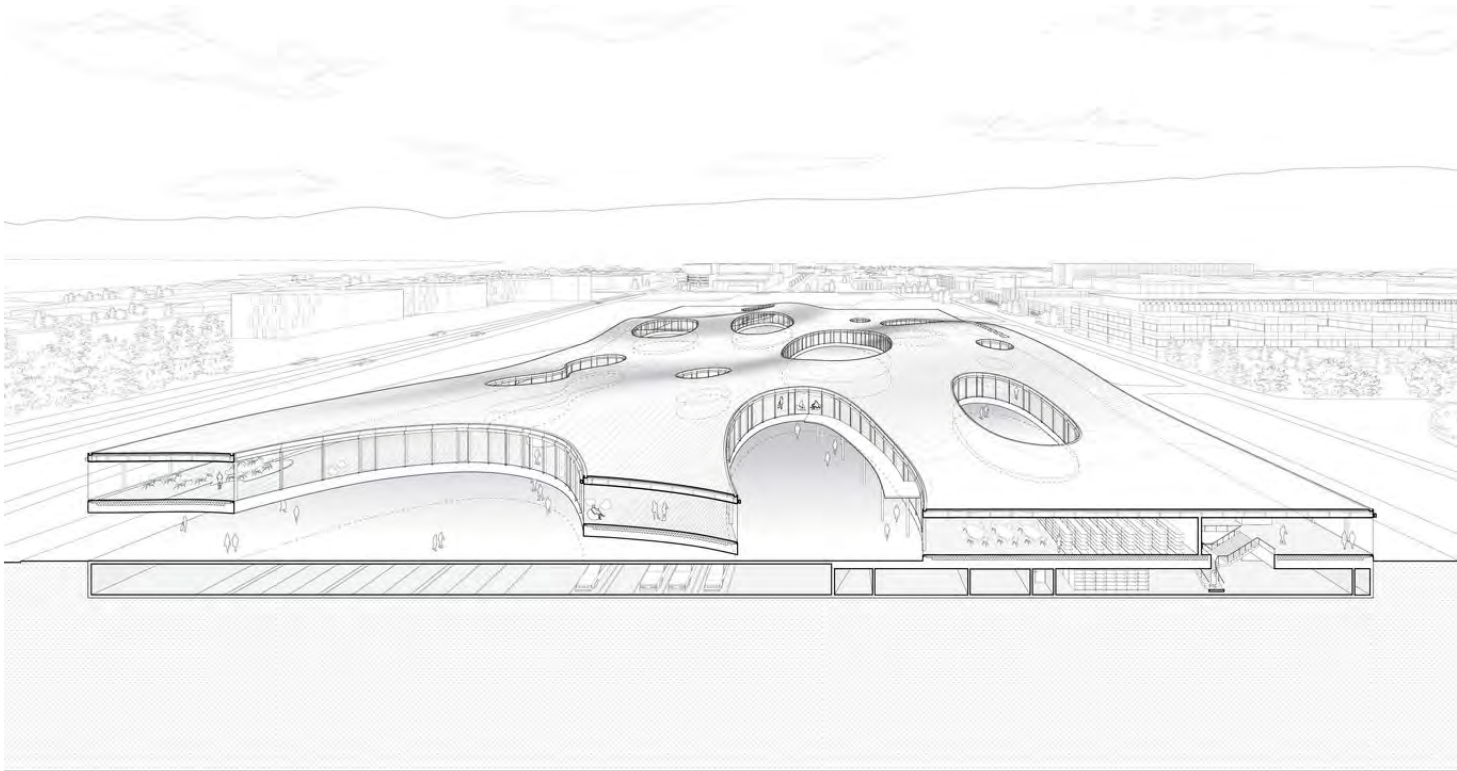
Again, it is up to you how you would like to organize the Precedent Case Study Building Section, but it should reasonably unpack the building and have coherent organization. Try and utilize a standard sheet size like 36x24 or 48x36.

**All drawings will be pinned up for discussion on Tuesday, February 19th and final submissions will be due digitally on February 21 by 5pm via Canvas.** The file name should start with your last names, the name of precedent, and project 1 (see below for example).

Example of file labeling: *cabral.roethlisberger\_KimballArtMuseum\_Project 2*

*The following examples provide some guidance as to what I am expecting and these come directly from the book, Manual of Section by LTL Architects:*





**Rolex Learning Center** | Lausanne, Switzerland

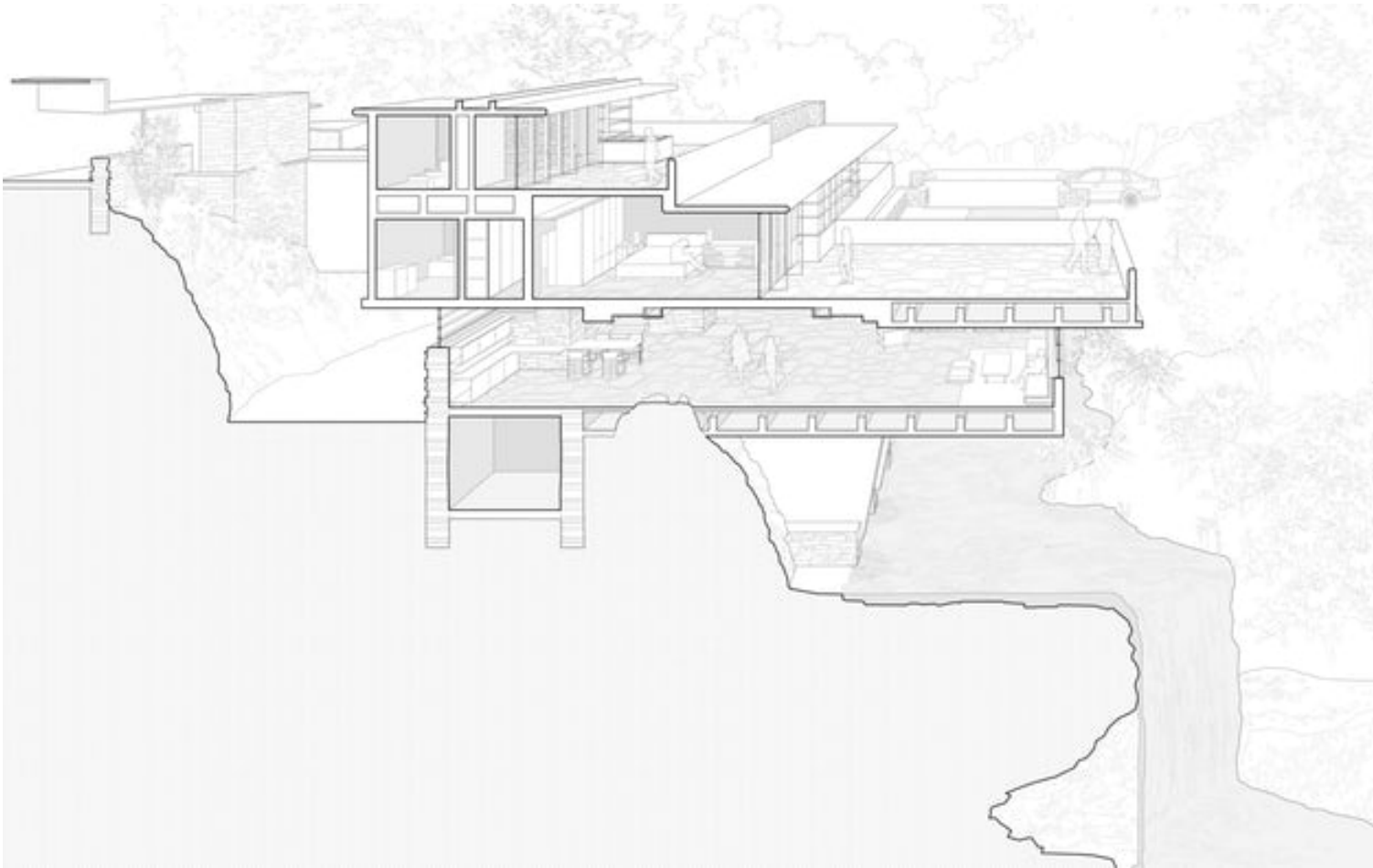
SANAA | 2010

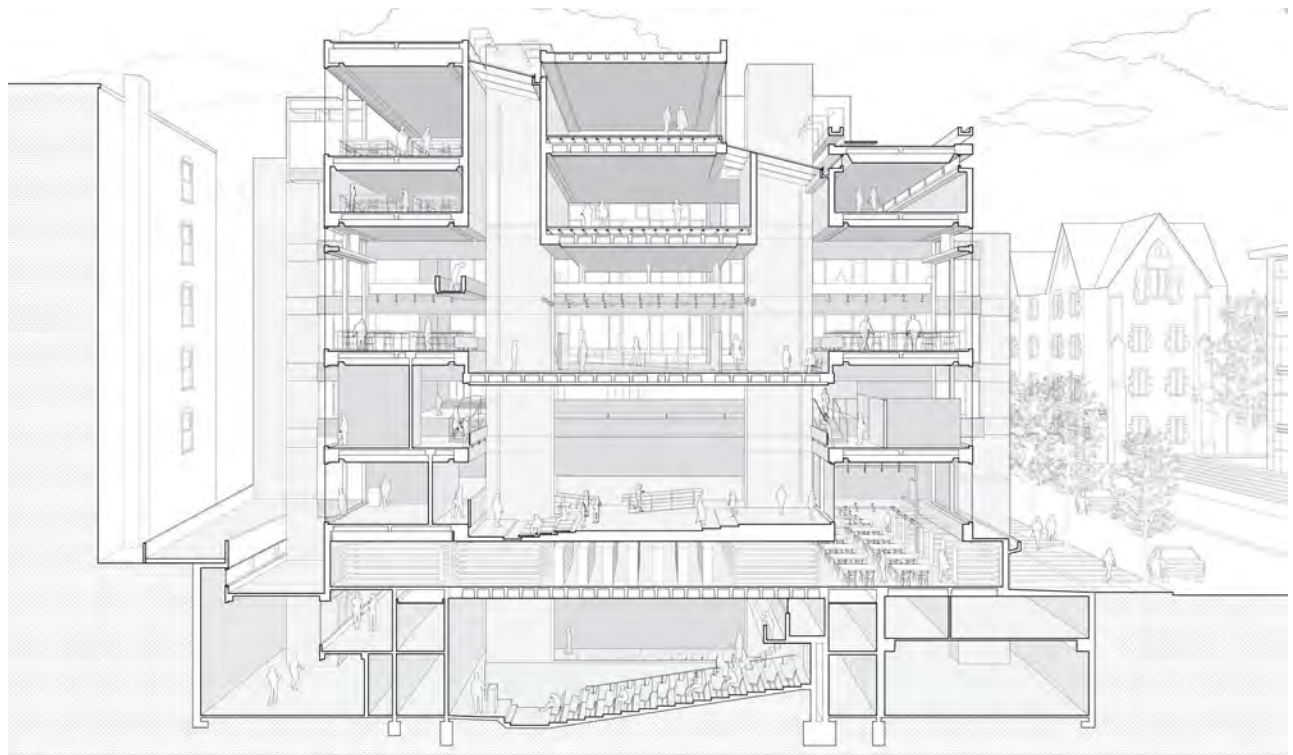
Located in the middle of an open site, this campus center for the École polytechnique fédérale de Lausanne contains an array of social spaces, libraries, cafes, and meeting halls within a single, largely horizontal volume. The floor is a 2-ft-thick (61 cm) concrete slab, formed into a curved shell that lifts above the

ceiling of a subterranean parking structure, allowing the grounds of the campus to extend below and through the building. A 29-ft-6-in.-by-29-ft-6-in. (9 by 9 m) grid of slender steel columns supports a steel and glulam framed ceiling above the undulating slab. This building can be seen as a hybrid of three section types. Its rectangular,

546-ft-3-in.-by-398-ft-7-in. (166.5 by 121.5 m) floor plate is extruded, typically, to a 10-ft-10-in. (3.3 m) internal ceiling height, with a slightly higher extrusion for certain programs, such as performance halls. That extruded horizontal space is defined by two arched zones that delaminate from the ground and allow a clustering or puddling

of programs on their shaped surfaces. This extrusion is then punctured by fourteen curvilinear holes, which distribute light and views obliquely through the slab. The cumulative effect of this hybrid section is the unprecedented spatial quality of a continuous free plan warped into the vertical axis.





**Yale Art and Architecture Building** New Haven, Connecticut, USA

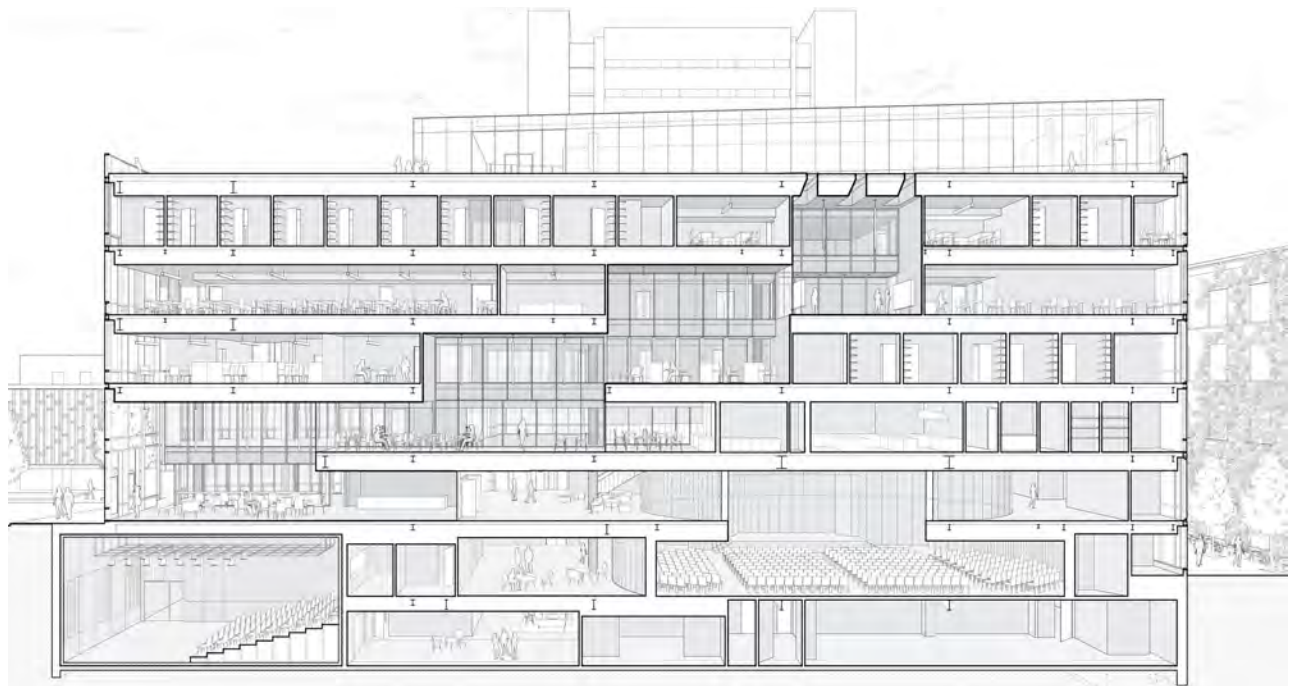
Paul Rudolph | 1963

Designed and constructed during Paul Rudolph's tenure as chair of the architecture department, the iconic Art and Architecture Building arranges 37 unique floor levels around a central core of open, collective spaces anchored by a series of striated-concrete towers. The section, which combines stacked,

sheared, and nested forms punctuated by holes, produces a variety of visual and spatial overlaps and intersections, most notably among the expansive central pinup spaces and galleries and the more peripheral and compressed studios and offices. Staggered levels, bridges, and offsets multiply the interactions among

adjacent spaces while allowing for campus views through large, steel-framed glass windows from deep within the interior. Massive piers of heavily textured, bush-hammered concrete provide structural support for horizontal platforms, house mechanical services, and contain vertical circulation. At the upper

levels, the play of horizontal planes gives way to enclosed tubular forms that bridge the vertical masses to enclose the spaces below. Between these volumes a collection of skylights and chimevents admit daylight, enlivening the varied spaces of this complex combination of section types.



**Barnard College Diana Center** New York, New York, USA

Weiss/Manfredi | 2010

Situated parallel to Broadway, this arts center encompasses studios, classrooms, offices, exhibition galleries, a black-box theater, a cafe, a dining room, and a five-hundred-seat circular performance space. Four double-height spaces are stacked diagonally, producing a visually continuous void

through the center of the building. This void is registered on the east facade (facing Broadway) through the articulation of custom-fitted glass panels. Separated by clear glass for acoustic reasons and fire mitigation, these volumes each contain a distinct social program and collectively allow

visual links throughout the building as well as to the adjacent campus lawn. Academic programs are distributed around the oblique void, with the largest space—a circular performance hall—located under the horizontal shear. On the side facing west, circulation extends into glass volumes that

cast over outside the building's footprint. This section combines the spatial and optical effects of a hole section with the cumulative consequence of a horizontal shear.



# ARC3463 Materials and Methods of Construction 2

Professor Huber\_Spring 2019

## Project #3

## Precedent Wall Section and MasterFormat Notes

**DUE TUESDAY April 30th, 9am (Review Pin-Up on April 11th in class)**

*“Materiality in architecture is the concept of, or applied use of, various materials or substances in the making/construction of buildings.”*

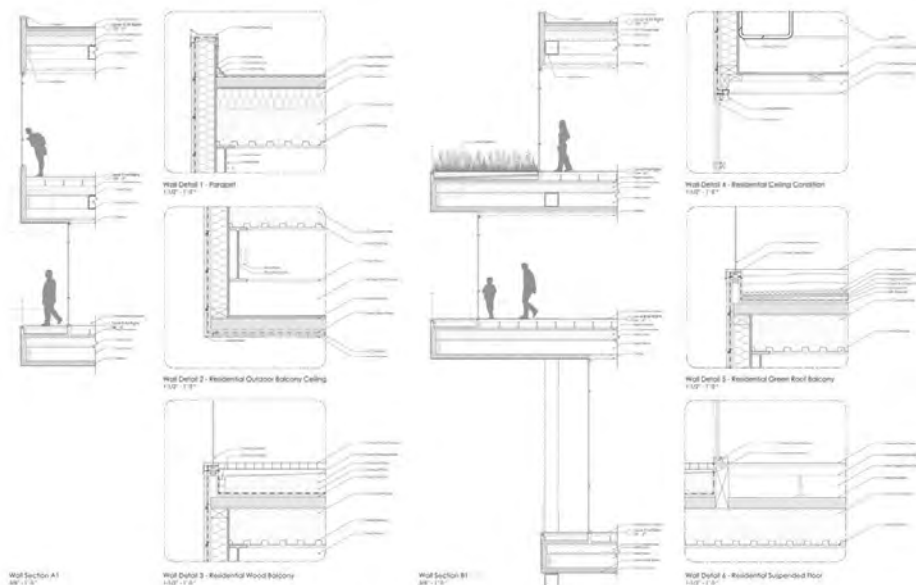
Our third precedent assignment will require you to complete a digital drawing of a typical wall section of the project you group is studying. Discussions on the materiality of architecture are usually synonymous with structural and aesthetic concerns in architectural design and are typically unique with each project. **Each team will work collectively to draw a 1/2"=1'-0" scaled wall section so that it can be understood how each material is attached, connected, or assembled together. See examples provided in this document of wall sections. Use typical symbols and patterns used in architectural drawings. It would be wise to start by finding an existing wall section of your project and tracing over. Be sure that you are using appropriate scale and interpolating information if you cannot find good documentation regarding building dimensions. I will be available for assistance during office hours, by appointment, or directly before and after class. Project 3 is worth 15% of your final grade. Furthermore, each student will work individually to develop a transformed wall section adapted to another climate other than the one it is currently in, i.e. if your precedent is in a temperate climate, adapt to a tropical one, etc. for extra credit.** Again those seeking extra credit should find time outside of class for review. The extra credit is due the day the entire project is due and does not need to be pinned up on April 11th. The extra credit is worth 10% of your final grade (potentially helping you an entire letter grade).

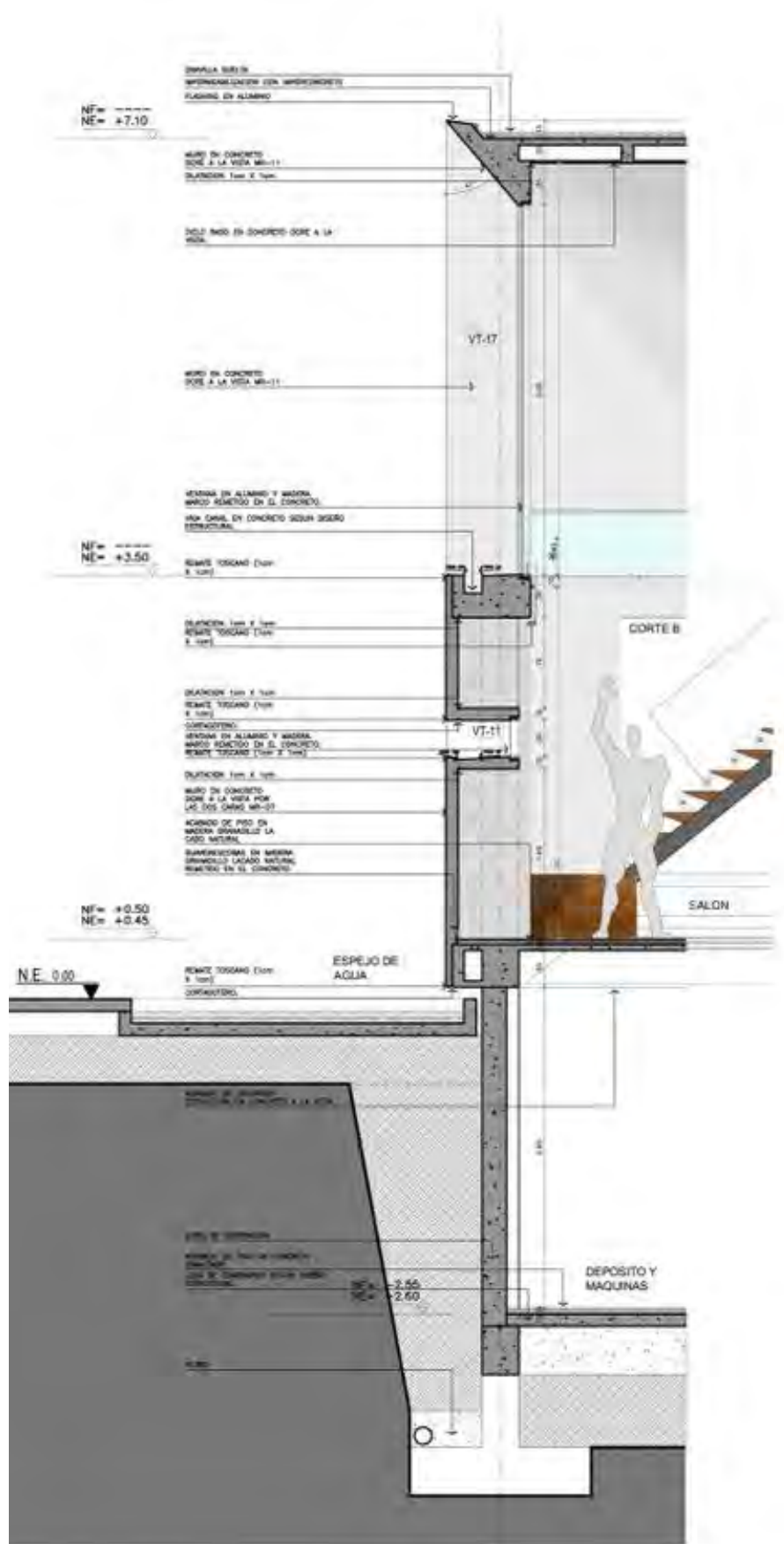
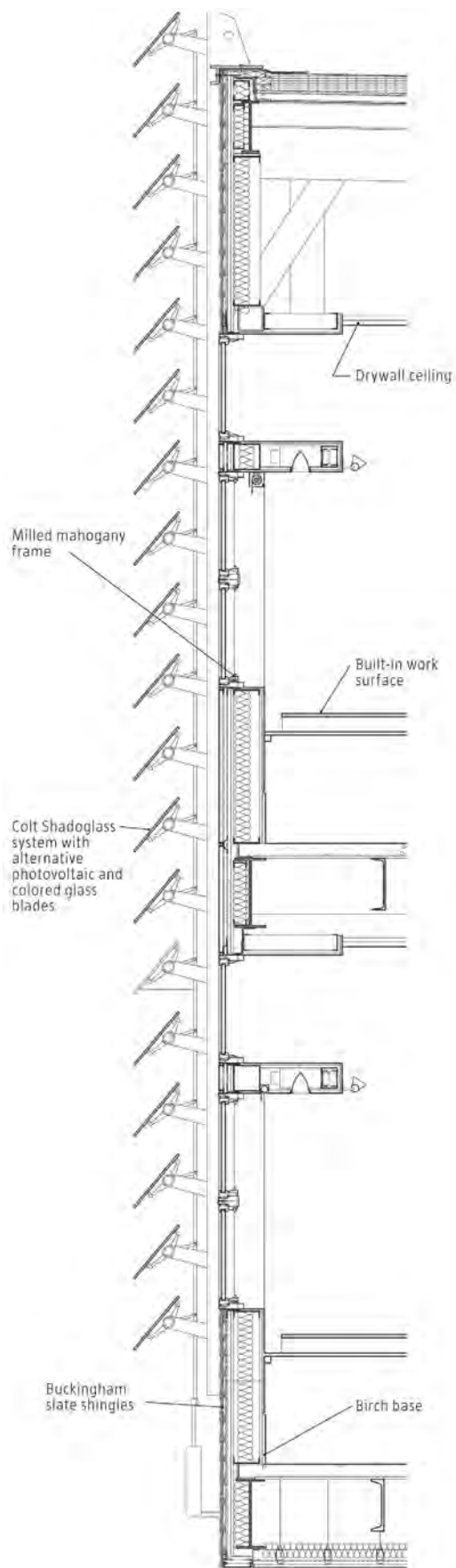
### Documentation Requirements:

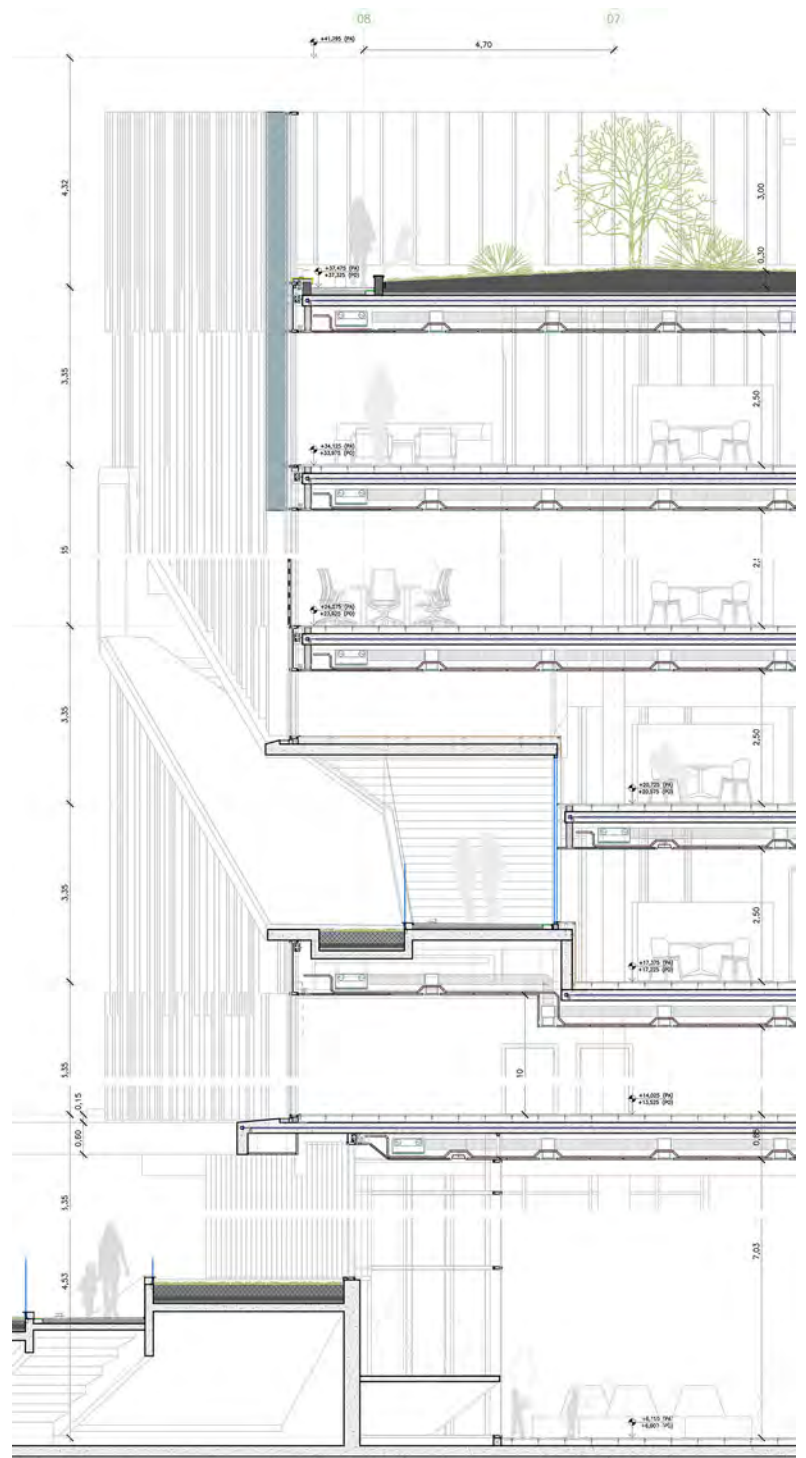
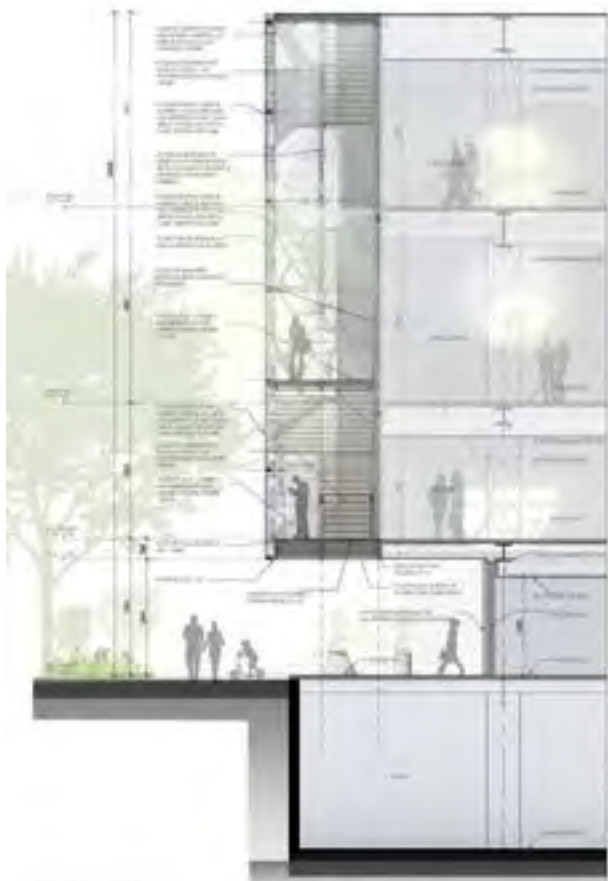
Working collectively (main assignment) or individually (extra credit), students will develop a digital wall section that follows these guidelines (grading is dependent on how you follow this criteria):

- scale will be 1/2"=1'-0", obviously this forces you to draw all elements in the wall assembly.
- show how assemblies work, DO NOT FAKE IT, and do the research
- Label the MasterSpec section number
- full height of wall must be shown
- ground terrain line indicated
- labels the interior spaces you are cutting in to
- indicate vertical elevation of each floor level
- pick section cuts from your building section drawings
- place scaled people, plants, furniture as appropriate
- take the time to make these beautiful drawings by indicating materials and using tone in the wall masses

**All rough draft drawings will be printed and brought to class on April 11th. The final submission will be uploaded to Canvas on April 30th by 9am.**









This wall section utilizes placement of the elevation next to it which is helpful and should be considered.



# SYLLABUS

## Architectural Design 7

ARC 4326-001, CRN 10118

Credits: 4

Semester: Fall, 2019

Time: Tuesday, Thursday: 12:30pm – 4:20pm

Location: Higher Education Building, 7<sup>th</sup> Floor Studio  
Fort Lauderdale Campus

### Instructor

John Sandell, Associate Professor

Office: Rm. 711, HEC Building

Office: TTH 11:00-12:00 or by appointment.

Email: jsandel1@fau.edu

Tel: 954-762-5066

### COURSE DESCRIPTION

This course focuses on systems of structure, circulation, enclosure, and programmatic organization within a specific context. Each system acts as a generative tool responsive to the context and the sequencing of design processes. Such processes, manifested through the appropriate means of architectural representation, act as a mode for identifying and understanding possible correlations and oppositions among the above systems and context. Coursework introduces advanced design research, building analysis and study of the social and physical attributes of an architectural project.

Eight hours of studio per week.

### COURSE OVERVIEW

This design studio concerns the development of a theoretical framework through which a comprehensive architectural response may be considered and developed simultaneously at multiple scales.

### PROJECT SYNOPSIS

The Wynwood District of Miami is defined by its history. This history includes, among other factors, its physical transformations over the past 100 years, the changing social fabric, struggles and political movements influencing those changes, and the rich cultural environment manifested through local foods, fashion, performance and visual arts. This semester's project examines the current socio-cultural state of the Wynwood District. The project in which your work will be made evident is a live-work community of artists. The goal of the project is to amalgamate this new small community into the larger social context of Wynwood and Miami. During the process, each student will formulate (and reformulate iteratively) the question concerning this small community's roll, including the relationship of live-work within the community and to the larger context. Through an understanding of context as an encapsulation of environmental, historical, social and cultural characteristics, future trends will be hypothesized. This mode of hypothesis as expressed through the projection of programs, systems and impacts on the built environment will challenge each student to identify unforeseen trends and consequences of design actions.

### COURSE OBJECTIVES

The course objectives include achieving the following:

- **THEORETICAL FRAMEWORK:** Students will formulate their design philosophy informed by studio agenda and understanding of intellectual framework.
- **CRITICAL THINKING:** apply the theoretical framework and utilize precedent analysis into new design propositions.
- **ANALOG, VIRTUAL, AND MIXED REALITY REPRESENTATIONS:** Students will learn and develop skills to incorporate different media in the design process.
- **PARAMETRICISM AND ENVIRONMENTAL PERFORMANCE:** students will learn concepts and applications of parametric design and will be exposed to environmental performance analysis lectures and experiments and apply their acquired knowledge to evaluate their designs.



## **COURSEWORK**

The minimum requirements for completing the course include:

- An approved sketchbook for class notes and sketches to be submitted upon completion of the course.
- Demonstrated completion of all course assignments including individual assignments, reading and other assignments.
- Demonstration of self-directed inquiry, research, analyses, progressive design development work, sketches, models, and drawings representing process and completed architectural response.
- Acquisition of the necessary materials and tools to complete all coursework.
- Responsible care and maintenance of assigned studio facilities and furnishings in accordance with the School of Architecture studio protocol.
- Demonstration that plan conventions, (plan/elevation/section), are understood.
- Demonstration of ADA and life safety requirements.
- Understanding of materials, structural and environmental systems as source systems and design modifiers.
- Understanding, representing and responding to context: man-made urban and natural environments.

## **THE DESIGN STUDIO**

The design studio is a place of scholarly preparation, inquiry, and reasoned dialogue. The representation of context and architectural response in model and drawing media are emphasized as the means toward an expanding inquiry and dialogue. Regular assignments will develop the scope, nature, and depth of the design process with attendant reviews by faculty and student peers. The full participation of each student is a minimum requirement for passing this course.

## **SUBMITTAL FORMAT**

Final presentation drawings shall conform to the standard format established by the School of Architecture for record and publication purposes. All individual student presentations shall include the following as a minimum: Complete representations of the design in model(s), site plans showing the project and its context, plans, elevations, sections, as needed to explain the solution. Plan drawings must include a north arrow and a graphic scale. All models must include a human figure for scale. All work submitted should bear the name of the student, the date, course and sequence number.

## **NAAB COURSE OBJECTIVES & STUDENT PERFORMANCE CRITERIA**

The following NAAB Student performance criteria as listed in the NAAB Conditions for Accreditation will be addressed in this course.

Primary:

A.2 Design Thinking Skills

A.6 Use of Precedents

C.2 Integrated Evaluations and Decision Making Design Process

Secondary:

A.4 Architectural Design Skills

B-1 Pre-Design

B-2 Site Design

B.4 Technical Documentation

C.3 Integrative Design

D-5 Professional Conduct

FA.1 Subtropical Sustainability

Please refer to the most recent NAAB conditions for accreditation at [www.NAAB.org](http://www.NAAB.org) for descriptions of all NAAB criteria. This list may also be accessed in the School of Architecture Student Handbook, available on the school's website.

## **PREREQUISITES**

ARC4326 completed with a minimum grade of "C", ARC3374 completed and passed.

## **REQUIRED TEXTS**

Architectural Graphic Standards, Student Edition, 9th Edition, Wiley.  
The Architect's Studio Companion, 3rd Edition, Wiley

## **SUPPLEMENTAL READING**

Handouts will be submitted during the semester.

### **SKETCHBOOK REQUIREMENT**

You are each required to have a sketchbook for your notes, summaries and projects. These materials will facilitate you in the compilation of your final report.

### **SPECIAL REQUIREMENTS**

Students are required to have Rhino software with Grasshopper installed (Rhino 6 has Grasshopper already). Options to download Rhino for free (demo version for 3 months) or purchase it for educational purposes can be found using the link: <https://novedge.com/mcneel/rhino-3d-student/products/2572/download>

### **PARTICIPATION**

Students are expected to bring all pertinent research notes and assignments to class for discussion and review. Students are responsible for completing all assigned readings prior to class and are expected to participate in related discussions. Participation will count towards your final grade.

### **GRADING POLICY**

The grading policy is established in accordance with Florida Atlantic University and the School of Architecture policies as outlined in the Florida Atlantic University Course Catalog. The following criteria supplements those policies and will be used to evaluate your work. You will be graded often and in a timely manner so you are certain of your academic standing in studio. Also note, that failure to follow verbal and written directions will negatively affect your grade.

### **COURSE EVALUATION METHOD**

The final presentation [or final project, or final exam] represents the culmination of all work completed during the term. The basic grade shall depend directly upon demonstration of the minimum standard of learning expected from this course. After the minimum criteria have been met, the final grade will be determined by evaluating design and communication skills and the quality of your research and exploration from commencement through completion of the course. In other words, process, performance and completion of all works is paramount towards earning a passing grade. All work must be corrected and improved prior to all scheduled presentations. Grade determination will include, but is not limited to, the following criteria:

Fulfillment of course requirements including the Student Performance Criteria, 100%

A more detailed breakdown is listed under the "COURSEWORK" and "COURSE SCHEDULE AND TOPICAL OUTLINE" headings.

Grade reductions for failure to abide by the terms of this syllabus shall be at the discretion of the instructor.

Letter grades represent the following:

A to A- Exceptional work, effort, and conduct exceeding requirements.

B+ to B- Above average work, effort, and conduct meeting all requirements.

C+ to C Average work, meeting all of the requirements and exhibiting a consistent effort in research and design process, communicated clearly.

C- to D- Marginal work, meeting the minimum requirements while exhibiting inconsistency in design research, process, and lacking in clarity.

F Failing work, meeting less than the minimum requirements.

I A grade of incomplete is only granted when the student has submitted evidence of a serious matter pertaining to the health of the student or a member of the student's immediate family and no more than one assignment is needed to complete the course.

A percentage value has been assigned to each project stage. These will be listed next to the project deadlines in the supplement to this syllabus.

### **MAKE-UP EXAMS & LATE WORK**

Any assignment turned in late will be graded lower by one full letter grade. Note that the School of Architecture requires a minimum grade of 'C' or better in this course for graduation. Anybody leaving work, supplies, scraps of any kind, junk in the studio after the week of reviews will be graded lower by one full letter grade. The studio will be cleaned the last day of class or immediately following reviews.

### **GRADING SCALE in %**

100- 93 A

92 – 90 A-  
89 – 88 B+  
87 – 83 B  
82 – 80 B-  
79 – 78 C+  
77 – 73 C  
72 – 70 C-  
69 – 68 D+  
67 – 63 D  
62 – 60 D-  
59 – 0 F

Project grading: Percent of final grade:

Project 1:	5%
Project 2, Assignment 1	10%
Assignment 2: Precedent study	5%
Assignment 3: Community	5%
Midterm1	25%

Assignment 4: Systems 1	5%
Assignment 5: Systems 2	5%
Preliminary:	10%

Final Review:	30%
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Total:	100%
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All exercises must be handed in at the due dates. Exercises received after the required date of submission will be graded "fail" with no resubmission.

In order to be considered for a passing grade in a course a student must complete and submit all exercises.

### **REQUIRED MEDIA AND FORMATTING**

All students' work must be submitted in two formats, digital and printed, (8 1/2 x 11). All work submitted should bear the name of the individual student and/or team members that contributed to the graphics and research. The analysis and synthesis of the materials should be made by each individual student. In addition, each student will submit a final document within two weeks of the final presentation that will include a critical analysis and synthesis of the content of the project.

Project Filing and Documentation – Students must organize and document all process work during the semester. The majority of two-dimensional design development work should be done using tracing paper/overlay and/or the sketchbook. Therefore, it is important that each student develop an appropriate filing system to organize their drawings of process and all versions of design, which must be available for review at any point during the semester. At the end of the semester, students must compile all process and final presentation material into a booklet that will be submitted for a final evaluation. All students are required to submit a CD documenting studio work throughout the semester.

Outside of class time, it is expected that, on average, each student will work a minimum of 8 hours per week on readings, homework assignments, research papers, interactive tutorials, study groups or projects.

### **ATTENDANCE POLICY**

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student

who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

Students shall conduct themselves in a diligent and scholarly manner. Students are expected to arrive to class on time, prepared, and having completed all assignments. During individual and group desk critiques, all students are expected to work productively at their individual or group drafting tables. Students are also required to remain in class for the duration of class, unless excused by the instructor. Anyone leaving early without permission will be marked with an unexcused absence for that day.

**Absences:** Each unexcused absence shall result in a 1% penalty from your final cumulative grade. Students absent more than six classes without serious reasons (medical or otherwise) given in writing in advance of the class will automatically fail the class. Students absent from a required presentation, assignment, or examination will receive, without exception, an F for that presentation, assignment, or examination. Attendance will be taken at the beginning (and sometimes end) of each class.

**Tardiness:** Students arriving after attendance has been taken shall be considered late, which will also result in a grade penalty.

Absence does not absolve the student from homework, assignments, or work progress due on the day of absence and the work due the following class. It is the student's sole responsibility to contact someone from the class to get information on the material covered and assignments given.

#### **POLICY ON MAKE-UPS/LATE/INCOMPLETES**

Make up and late work will not be accepted, except by prior agreement with instructor, based on legitimate reasons for access. Incompletes will only be offered in cases of medical or family emergency.

#### **CLASSROOM ETIQUETTE POLICY**

Students are expected to conduct themselves in a collegial and professional manner. This includes respecting the opinions of others, being attentive during lectures, and reviews, and participating fully in all discussions. During individual and group critiques students are expected to work productively at their drafting tables. Electronic communications with persons outside of the classroom or studio (telephone, texting, social media, etc.) is prohibited. In case of extenuating circumstances, students must make prior arrangements with faculty. Disruptive use of electronic communication may result in instructor asking student to leave class which shall result in an absence for that class.

It is the students' responsibility to maintain a professional, clean and safe working environment in the studios at all times. At the end of the semester, the studio should be returned to state in which it was received at the beginning of the semester. The studio clean-up is the collective responsibility of the studio, and the individual responsibility of the student. All garbage, debris, drawing material, model making material and personal effects must be removed or placed in trash bins, and all floors and desk surfaces must be clean, with your assigned stool placed on top of your desk. Any student leaving material in the studio after the May 2, 2019 clean out date will have their final grade for the class withheld, until the studio has been cleaned.

Special requirements (if applicable) such as mandatory field trips or purchase of course related materials. Students are required to provide all their own instruments and resource materials in the studio. Except in cases of medical reason, students are required to attend field trips.

#### **SPECIAL NEEDS**

Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provide FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

Disability Statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all

campuses. For more information, please visit the SAS website at [www.fau.edu/sas/](http://www.fau.edu/sas/).

#### **CODE OF ACADEMIC INTEGRITY POLICY**

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high-quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see the Code of Academic Integrity in the University Regulations at [https://www.fau.edu/ctl/4.001\\_Code\\_of\\_Academic\\_Integrity.pdf](https://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf)

Plagiarism is unacceptable in the University community. Academic work that is submitted by students is assumed to be the result of their own thought, research, or self-expression. When students borrow ideas, wording, drawings or organization from another source, they are expected to acknowledge that fact in an appropriate manner. Plagiarism is the deliberate use and appropriation of another's work without identifying the source and trying to pass-off such work as one's own. Any student who fails to give full credit for ideas or materials taken from another has plagiarized. This includes all discussion board posts, journal entries, wikis, and other written and oral presentation assignments. If in doubt, cite your source! Cited work of others should be kept to a minimum in favor of your own analysis.

#### **OUTSIDE EMPLOYMENT**

While the School of Architecture is sensitive to the financial and professional needs of our students, outside employment is not considered an extenuating circumstance in cases of poor performance, excessive absences or failure to submit assigned work on schedule. Students who fail to adequately fulfill course and curriculum requirements while maintaining outside employment may be required to carry reduced course loads. A longer period in residence may result from this reduction in course load.

#### **STUDENT WORK**

The School of Architecture reserves the right to retain any and all student work for the purpose of record, exhibition, and instruction. All students are encouraged to reproduce all work for their own records prior to submission of originals to the instructor. In the event of publication, the author or the work will be recognized and receive full attribution.

#### **GENERAL**

Information concerning academic regulations, student rights and responsibilities may be found in the current Florida Atlantic University Catalog and Student Handbook. Students are also encouraged to review the School of Architecture Student Handbook, available online at the school's website.

## COURSE SCHEDULE

Week 1:	Course Introduction and Project 1: Parametric Workshop (2 days-workshop by Yousif). Project 1 Assigned.
Week2:	Project 1 Due. Project 2, Assignment 1: Site Analysis in the Urban Context: History of Place, (group assignment).(Lecture: Camargo)
Week 3:	Urban Context: History of Place.
Week 4:	Assignment 2: Precedent study. Work-Live and Public Space
Week 5:	Assignment 3: Programming as a System. (Lecture on diagramming architectural aesthetics, (Lecture: Yousif)
Week 6:	Assignment 4: The Artist Community. (Lecture: Sandell)
Week7::	Assignment 5: Architectural Systems as a Means of Projection. Sept. 23-27 Midterm studio reviews.
Week 8:	Assignment 6: Systems Analysis : Systems Projection.
Week 9:	Continuation of Architectural Systems as a Means of Projection.
Week 10:	Architectural Systems and building environmental performance (Lecture: Yousif)
Week 11:	Collapsing the Language of Systems into the Architectural Project.
Week 12:	Project Revisions: Comprehensive.
Week 13:	Project Revisions: Comprehensive, Wall Section; Wall Section Workshop.
Week 14:	Project Revisions: Comprehensive. Preliminary review.
Week 15:	Project Revisions: Final Review Thursday, November 26, 2019 30% of final grade.

### Reference:

Last day of classes, November 27

Read days: December 1 - 3

Final exams: December 4 - 10

Schedule is subject to change.

# SYLLABUS

## Architectural Design 8

ARC 4327-002, CRN 10660

Credits: 4

Semester: Spring, 2019

Time: Tuesday, Thursday: 12:30pm – 4:20pm

Location: Higher Education Building, 7<sup>th</sup> Floor Studio  
Fort Lauderdale Campus

### Instructor

John Sandell, Associate Professor

Office: Rm. 711, HEC Building

Office: TTH 11:00-12:00 or by appointment.

Email: jsandel1@fau.edu

Tel: 954-762-5066

### COURSE DESCRIPTION

This course focuses on architecture in the urban context. A continuation of Architectural Design 7 and its emphasis on design processes, this course investigates the relationship of buildings and spaces to the public realm through the development of an urban design plan and a complex building intervention. Coursework includes advanced design research, urban analysis and study of the social and physical attributes of public space. Eight hours of studio per week.

### COURSE OVERVIEW

This design studio concerns the development of a theoretical framework through which a comprehensive architectural response may be considered and developed simultaneously at multiple scales.

### PROJECT SYNOPSIS

The project for this semester examines the library as an evolving cultural institution. In particular, you will be charged with understanding its purpose as a public institution in a democratic system and questioning the future role of the modern library from the collection and storage of books and its social function as a public cultural incubator, to the metamorphosis of the institutional program in our “bit” economy and its intrinsic value to the arts. While an understanding of its social dimension will be emphasized, the issue of library will also be approached at multiple scales. These approaches include examining the “scale” of the text, its content and meaning, and including the “optics” of a virtual reading of such. The site location is in the city of Miami and the urban “positioning” of the modern media library in relation to the city’s history will also contribute to the framework within which each design project unfolds. In this sense, the multiple facets of media itself become the catalyst for uncovering latent notions of the library’s role in the 21<sup>st</sup> century.

### COURSE OBJECTIVE

Utilizing two and three-dimensional means of visual communication, the primary objective for each project will be to acquire and expound a unique social critique, a questioning of the theme, through the language of spatial pattern, physical form, materials and technology.

### COURSEWORK

The minimum requirements for completing the course include:

- An approved sketchbook for class notes and sketches to be submitted upon completion of the course.
- Demonstrated completion of all course assignments including individual assignments, reading and other assignments.
- Demonstration of self-directed inquiry, research, analyses, progressive design development work, sketches, models, and drawings representing process and completed architectural response.
- Acquisition of the necessary materials and tools to complete all coursework.
- Responsible care and maintenance of assigned studio facilities and furnishings in accordance with the School of Architecture studio protocol.
- Demonstration that plan conventions, (plan/elevation/section), are understood.

- Demonstration of ADA and life safety requirements.
- Understanding of materials, structural and environmental systems as source systems and design modifiers.
- Understanding, representing and responding to context: man-made urban and natural environments.

#### THE DESIGN STUDIO

The design studio is a place of scholarly preparation, inquiry, and reasoned dialogue. The representation of context and architectural response in model and drawing media are emphasized as the means toward an expanding inquiry and dialogue. Regular assignments will develop the scope, nature, and depth of the design process with attendant reviews by faculty and student peers. The full participation of each student is a minimum requirement for passing this course.

#### SUBMITTAL FORMAT

Final presentation drawings shall conform to the standard format established by the School of Architecture for record and publication purposes. All individual student presentations shall include the following as a minimum: Complete representations of the design in model(s), site plans showing the project and its context, plans, elevations, sections, as needed to explain the solution. Plan drawings must include a north arrow and a graphic scale. All models must include a human figure for scale. All work submitted should bear the name of the student, the date, course and sequence number.

#### NAAB COURSE OBJECTIVES & STUDENT PERFORMANCE CRITERIA

The following NAAB Student performance criteria as listed in the NAAB Conditions for Accreditation will be addressed in this course.

Primary:

A.2 Design Thinking Skills

A.6 Use of Precedents

B.1 Pre-Design

B.6 Environmental Technology

**C.2 Integrated Evaluations and Decision Making Design Process**

Secondary:

A.1 Communication Skills

A.4 Architectural Design Skills

B.3 Codes and Regulations

B.4 Technical Documentation

C.3 Integrative Design

Please refer to the most recent NAAB conditions for accreditation at [www.NAAB.org](http://www.NAAB.org) for descriptions of all NAAB criteria. This list may also be accessed in the School of Architecture Student Handbook, available on the school's website.

#### PREREQUISITES

ARC4326 completed with a minimum grade of "C", ARC3374 completed and passed.

#### REQUIRED TEXTS

Architectural Graphic Standards, Student Edition, 9th Edition, Wiley.  
The Architect's Studio Companion, 3rd Edition, Wiley

#### SUPPLEMENTAL READING

Handouts will be submitted during the semester.

#### SKETCHBOOK REQUIREMENT

You are each required to have a sketchbook for your notes, summaries and projects. These materials will facilitate you in the compilation of your final report.

#### PARTICIPATION

Students are expected to bring all pertinent research notes and assignments to class for discussion and review. Students are responsible for completing all assigned readings prior to class and are expected to participate in related discussions. Participation will count towards your final grade.



#### GRADING POLICY

The grading policy is established in accordance with Florida Atlantic University and the School of Architecture policies as outlined in the Florida Atlantic University Course Catalog. The following criteria supplements those policies and will be used to evaluate your work. You will be graded often and in a timely manner so you are certain of your academic standing in studio. Also note, that failure to follow verbal and written directions will negatively affect your grade.

#### COURSE EVALUATION METHOD

The final presentation [or final project, or final exam] represents the culmination of all work completed during the term. The basic grade shall depend directly upon demonstration of the minimum standard of learning expected from this course. After the minimum criteria have been met, the final grade will be determined by evaluating design and communication skills and the quality of your research and exploration from commencement through completion of the course. In other words, process, performance and completion of all works is paramount towards earning a passing grade. All work must be corrected and improved prior to all scheduled presentations. Grade determination will include, but is not limited to, the following criteria:

Fulfillment of course requirements including the Student Performance Criteria, 100%

A more detailed breakdown is listed under the "COURSEWORK" and "COURSE SCHEDULE AND TOPICAL OUTLINE" headings.

Grade reductions for failure to abide by the terms of this syllabus shall be at the discretion of the instructor.

Letter grades represent the following:

A to A- Exceptional work, effort, and conduct exceeding requirements.

B+ to B- Above average work, effort, and conduct meeting all requirements.

C+ to C Average work, meeting all of the requirements and exhibiting a consistent effort in research and design process, communicated clearly.

C- to D- Marginal work, meeting the minimum requirements while exhibiting inconsistency in design research, process, and lacking in clarity.

F Failing work, meeting less than the minimum requirements.

I A grade of incomplete is only granted when the student has submitted evidence of a serious matter pertaining to the health of the student or a member of the student's immediate family and no more than one assignment is needed to complete the course.

A percentage value has been assigned to each project stage. These will be listed next to the project deadlines in the supplement to this syllabus.

**MAKE-UP EXAMS & LATE WORK** Any assignment turned in late will be graded lower by one full letter grade. Note that the School of Architecture requires a minimum grade of 'C' or better in this course for graduation. Anybody leaving work, supplies, scraps of any kind, junk in the studio after the week of reviews will be

graded lower by one full letter grade. The studio will be cleaned the last day of class or immediately following reviews.

#### GRADING SCALE in %

100- 93 A  
92 – 90 A-  
89 – 88 B+  
87 – 83 B  
82 – 80 B-  
79 – 78 C+  
77 – 73 C  
72 – 70 C-  
69 – 68 D+  
67 – 63 D  
62 – 60 D-  
59 – 0 F

Project grading: Percent of final grade:

Midterm 1:	25%
Midterm 2:	10%
Midterm 3:	15%
Midterm 4:	15%

Final Review: 35%  
Total: 100%

All exercises must be handed in at the due dates. Exercises received after the required date of submission will be graded "fail" with no resubmission.

In order to be considered for a passing grade in a course a student must complete and submit all exercises. **REQUIRED MEDIA AND FORMATTING**

All students' work must be submitted in two formats, digital and printed, (8 1/2 x 11). All work submitted should bear the name of the individual student and/or team members that contributed to the graphics and research. The analysis and synthesis of the materials should be made by each individual student. In addition, each student will submit a final document within two weeks of the final presentation that will include a critical analysis and synthesis of the content of the project.

**Project Filing and Documentation** – Students must organize and document all process work during the semester. The majority of two-dimensional design development work should be done using tracing paper/overlay and/or the sketchbook. Therefore, it is important that each student develop an appropriate filing system to organize their drawings of process and all versions of design, which must be available for review at any point during the semester. At the end of the semester, students must compile all process and final presentation material into a booklet that will be submitted for a final evaluation. All students are required to submit a CD documenting studio work throughout the semester.

Outside of class time, it is expected that, on average, each student will work a minimum of 8 hours per week on readings, homework assignments, research papers, interactive tutorials, study groups or projects.

#### ATTENDANCE POLICY

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

Students shall conduct themselves in a diligent and scholarly manner. Students are expected to arrive to class on time, prepared, and having completed all assignments. During individual and group desk critiques, all students are expected to work productively at their individual or group drafting tables. Students are also required to remain in class for the duration of class, unless excused by the instructor. Anyone leaving early without permission will be marked with an unexcused absence for that day.

**Absences:** Each unexcused absence shall result in a penalty from your final cumulative point total. Students absent more than six classes without serious reasons (medical or otherwise) given in writing in advance of the class will automatically fail the class. Students absent from a required presentation, assignment, or examination will receive, without exception, an F for that presentation, assignment, or examination. Attendance will be taken at the beginning (and sometimes end) of each class.

**Tardiness:** Students arriving after attendance has been taken shall be considered late, which will also result in a grade penalty.

Absence does not absolve the student from homework, assignments, or work progress due on the day of absence and the work due the following class. It is the student's sole responsibility to contact someone from the class to get information on the material covered and assignments given.

#### POLICY ON MAKE-UPS/LATE/INCOMPLETES

Make up and late work will not be accepted, except by prior agreement with instructor, based on legitimate

reasons for access. Incompletes will only be offered in cases of medical or family emergency.

#### CLASSROOM ETIQUETTE POLICY

Students are expected to conduct themselves in a collegial and professional manner. This includes respecting the opinions of others, being attentive during lectures, and reviews, and participating fully in all discussions. During individual and group critiques students are expected to work productively at their drafting tables. Electronic communications with persons outside of the classroom or studio (telephone, texting, social media, etc.) is prohibited. In case of extenuating circumstances, students must make prior arrangements with faculty. Disruptive use of electronic communication may result in instructor asking student to leave class which shall result in an absence for that class.

It is the students' responsibility to maintain a professional, clean and safe working environment in the studios at all times. At the end of the semester, the studio should be returned to state in which it was received at the beginning of the semester. The studio clean-up is the collective responsibility of the studio, and the individual responsibility of the student. All garbage, debris, drawing material, model making material and personal effects must be removed or placed in trash bins, and all floors and desk surfaces must be clean, with your assigned stool placed on top of your desk. Any student leaving material in the studio after the May 2, 2019 clean out date will have their final grade for the class withheld, until the studio has been cleaned.

Special requirements (if applicable) such as mandatory field trips or purchase of course related materials. Students are required to provide all their own instruments and resource materials in the studio. Except in cases of medical reason, students are required to attend field trips.

#### SPECIAL NEEDS

##### Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provide FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

##### Disability Statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at [www.fau.edu/sas/](http://www.fau.edu/sas/).

#### CODE OF ACADEMIC INTEGRITY POLICY

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high-quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see the Code of Academic Integrity in the University Regulations at [https://www.fau.edu/ctl/4.001\\_Code\\_of\\_Academic\\_Integrity.pdf](https://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf)

Plagiarism is unacceptable in the University community. Academic work that is submitted by students is assumed to be the result of their own thought, research, or self-expression. When students borrow ideas, wording, drawings or organization from another source, they are expected to acknowledge that fact in an appropriate manner. Plagiarism is the deliberate use and appropriation of another's work without identifying the source and trying to pass-off such work as one's own. Any student who fails to give full credit for ideas or materials taken from another has plagiarized. This includes all discussion board posts, journal entries, wikis, and other written and oral presentation assignments. If in doubt, cite your source! Cited work of others should be kept to a minimum in favor of your own analysis.

#### OUTSIDE EMPLOYMENT

While the School of Architecture is sensitive to the financial and professional needs of our students, outside employment is not considered an extenuating circumstance in cases of poor performance, excessive

absences or failure to submit assigned work on schedule. Students who fail to adequately fulfill course and curriculum requirements while maintaining outside employment may be required to carry reduced course loads. A longer period in residence may result from this reduction in course load.

#### STUDENT WORK

The School of Architecture reserves the right to retain any and all student work for the purpose of record, exhibition, and instruction. All students are encouraged to reproduce all work for their own records prior to submission of originals to the instructor. In the event of publication, the author or the work will be recognized and receive full attribution.

#### GENERAL

Information concerning academic regulations, student rights and responsibilities may be found in the current Florida Atlantic University Catalog and Student Handbook. Students are also encouraged to review the School of Architecture Student Handbook, available online at the school's website.

#### COURSE SCHEDULE

Week 1:	Course Introduction and Project 1: "Book Hackers"	
Week 2:	Project 2: "Vaults and Memorials" & "Library and Cultural Institutions in a democratic system."	
Week 3:	Project 3: Precedent study and utilitarian program & "Library and Public Space."	
Week 4:	Project 4: "Site Analysis" & research on "Library, media and Technological Advancement of Media."	
Week 5:	Project 5: Revelation and Preservation: "Light, Sound and Air"	Midterm Review 1: Weeks 1-5; 25% of final grade.
Week 6:	Project 6: The Drawing as a Repository of Knowledge.	
Week 7:	Project Revisions: Site, history, place	Midterm Review 2: Weeks 1-7; 10% of final grade.
Week 8:	Project Revisions: Structure, spatial pattern, and formal language defined.	
Week 9:	Spring Break: Project Revisions & Detailed Wall Section	Wall section is 10% pass/fail of midterm 3 grade.
Week 10:	Project Revisions: Detailed Wall Section	Midterm Review 3: Weeks 1-10; 15% of final grade.
Week 11:	Project Revisions: Comprehensive	
Week 12:	Project Revisions: Comprehensive	Midterm Review 4: Weeks 1-11; 15% of final grade.
Week 13:	Project Revisions: Comprehensive	
Week 14:	Project Revisions: Comprehensive	
Week 15:	Project Revisions: Final Review Thursday, April 18, 2019	35% of Final Grade

#### Reference:

Final Review: April 18  
Last day of classes, April 22  
Read days: April 23-24  
Final exams: April 25 – April 3



Florida Atlantic University  
College for Design and Social Inquiry  
School of Architecture

Course: Environmental Technology 2, ARC 4620

3 Credits

Fall 2019

Class Location: Room 910 | Time: Tu & Th 5:00-6:20 pm

Instructor: Shermeen Yousif, Ph.D., Office: HEC Room 813, Office Hours: Thursday 10:30am - 11:30am and by appointment

Phone: (954)7625651, Email: syousif@fau.edu

**Course Description** Introduces students to building services systems. Theoretical and practical applications of the building services systems will be investigated.

**Course Objectives** This course is intended to give the undergraduate students both a fundamental base and practical knowledge of the environmental control systems/strategies in large and small buildings. The following NAAB Student performance criteria as listed in the NAAB Conditions for Accreditation will be addressed in this course:

**B.6 Environmental Systems**

**B.9 Building Service Systems**

This course introduces students to following *building services systems*

- heating, ventilating, and air-conditioning (*HVAC*) systems
- *electrical* systems
- **communication and security systems**
- *water and plumbing* systems
- *life safety and fire protection* (Fire resistance, EGRESS, Fire alarm systems)
- *transportation* systems

Throughout this course, theoretical and practical applications of the building services systems will be investigated. Furthermore, to establish a connection between the course and architectural design, architectural requirements of each system will be discussed. Class activities include:

- Lecture
- Building simulation
- Calculation
- Construction document reading and production
- Building facility tour
- Presentation

Intended Outcomes: Areas of demonstrated competence include the following:

- Understanding of the role of the designer in *reducing the consumption* of non-renewable resources and *protection of the environment*.
- Understanding of the principles of environmental systems and building service systems including fundamental *concepts and language*

- Understanding the impact of **standards, regulations, principles**, and architectural **requirements** that inform design decisions of these systems

#### **Pre-requisite**

No prerequisites required, yet, discussions in the class are based on understandings about **building physics** taught in Environmental Technology I

#### **Instructional Methodology**

Instructional activities include lectures, reading assignments, class discussion, assigned exercises, quizzes, term projects, and midterm and final examinations. The lectures will be organized around these activities. There may be small pop-up weekly quizzes that will be administered in the lecture covering weekly reading. This is intended to keep track of student's participation, learning progress, and knowledge of course materials.

#### **Attendance Policy**

*Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.*

*Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.*

Students are expected to fully participate in the class activities and perform all assignments. ***Students absent from more than two classes without serious reasons (medical or otherwise) given in writing in advance of the class will drop ONE whole letter grade. Students absent from a required presentation, assignment, or examination will receive, without exception, an F for that presentation, assignment, or examination. Students appearing more than 20 minutes late for class, using electronic communication devices during class, or otherwise not participating in class, will be considered ABSENT at the discretion of the instructor.***

***Students arriving to class more than 15 minutes, but less than 20 minutes late for class will be considered late. Two late arrivals will count as one absence.***

***No more than two consecutive absences are allowed. Those students that miss more than two classes consecutively will be subject to dismissal and a grade of 'F' will be entered into their record.*** Should a valid medical condition be the cause for absences then complete documentation shall be presented at the next date of attendance.

***Absence does not absolve students from homework, assignments, or work progress due on the day of absence and the work due the following class.*** It is student's sole responsibility to contact someone from the class to get information on the material covered and assignments given.

Students are expected to arrive promptly on time prior to the beginning of class with all required materials. Students are expected to report to class fully prepared. ***Any student***

***attending class without the necessary working materials will be counted absent for that class.***

**Classroom Etiquette Policy**

Cellular phones and pagers have to be silenced before the class begins. No attention shall be given these devices. No student may engage in text messaging. Doing so will result in student being counted absent for that class. Should an emergency exist, and acceptable alternative can be agreed upon on a case-by-case basis in advance.

Students will demonstrate respect for instructors and fellow students. Behavior that is disruptive to a positive learning environment will result in a warning on the first instance, and perhaps expulsion from the course in the second instance.

**Policy on Make Ups/Late/Incompletes**

***Students are expected to submit assignments and projects by scheduled submission times. Late submission will be allowed only in cases where a student will be absent with documented, justifiable cause (i.e., medical, legal, intercollegiate activities, etc.).***

Authorization for missing an exam should be arranged prior to the scheduled exam date for the class. The late submission will be scheduled on an individual basis.

Students are expected to bring all pertinent research notes and materials to the class for discussion. Furthermore, students are responsible for assigned readings and expected to participate in related discussions.

**Course Evaluation and Grading Scale**

The final presentation represents the culmination of all work completed during the term. The basic grade shall depend directly upon demonstration of the minimum standard of learning expected from this course. After the minimum standard of learning expected from this course has been met, the final grade will be determined by evaluating design and communication skills and the quality of generative research and exploration from commencement through completion of the course. All works must be corrected and improved prior to all scheduled presentations. Grade determination will include, but is not limited to, the following criteria: class participation, craftsmanship, graphic proficiency, design quality, concept/design development, and overall attitude.

The class employs Blackboard's letter grade conversion standard. Letter grades are defined as follows:

***A to A-***     *Exceptional work, above and beyond the requirements and exhibiting creative advancement in design theory or application.*

***B+ to B-***     *Good work, meeting all of the requirements and exhibiting creative solutions that respond to the important project issues, communicated clearly.*

***C+ to C***     *Average work, meeting all of the requirements and exhibiting a consistent effort in research and design process, communicated clearly.*

***C- to D-***     *Marginal work, meeting the minimum requirements while exhibiting inconsistency in design research, process and lacking in clarity.*

***F***     *Failing work, meeting less than the minimum requirements.*

Grading scale in %:

100- 93 A

92 – 90 A-

89 – 88 B+

87 – 83 B

82 – 80 B-  
79 – 78 C+  
77 – 73 C  
72 – 70 C-  
69 – 68 D+  
67 – 63 D  
62 – 60 D-  
59 – 0 F

The following are percentages of different coursework:

**Homework and Quizzes 10%**

**Project 1 20%**

**Project 2 10%**

**Project 3 10%**

**Project 4 20%**

**Final exam 30%**

**NAAB Course  
Objectives & Student  
Performance  
Criteria**

The following NAAB Student performance criteria will be addressed in this course:

**“B.6 Environmental Systems:** Ability to demonstrate the principles of environmental systems’ design, how design criteria can vary by geographic region, and the tools used for performance assessment. This demonstration must include active and passive heating and cooling, solar geometry, daylighting, natural ventilation, indoor air quality, solar systems, lighting systems, and acoustics.

**B.9 Building Service Systems:** Understanding of the basic principles and appropriate application and performance of building service systems, including lighting, mechanical, plumbing, electrical, **communication**, vertical transportation, **security**, and fire protection systems.”

Both SPC’s assigned to this course are under the realm of Building Practices, Technical Skills, and Knowledge. For descriptions of all NAAB criteria, please refer to the most recent NAAB conditions for accreditation at [www.NAAB.org](http://www.NAAB.org). The list may also be accessed in the School of Architecture Student Handbook, available on the school’s website.

According to NAAB, “the accredited degree program must demonstrate that each graduate possesses the knowledge and skills defined by the criteria above. The knowledge and skills defined here represent those required to prepare graduates for the path to internship, examination, and licensure and to engage in related fields. The program must provide student work as evidence that its graduates have satisfied each criterion.

The criteria encompass two levels of accomplishment:

- 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.”<sup>1</sup>

“Graduates from NAAB-accredited programs must be able to comprehend the technical aspects of design, systems, and materials and be able to apply that

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<sup>1</sup> 2014 Conditions for Accreditation, National Architectural Accrediting Board, Inc.



comprehension to architectural solutions. In addition, the impact of such decisions on the environment must be well considered.”

Completion of this course with a grade of “C” or better indicates sufficiency in demonstrating the requirements of the following Student Performance Criteria (SPC) at the level of a professional degree. The National Architectural Accrediting Board (NAAB) have established SPC’s “to help accredited degree programs prepare students for the profession while encouraging education practices suited to the individual degree program.” They are assigned to the curriculum by the faculty of the School of Architecture.

### Required Text and Readings

Students are advised to purchase three-ring binder, and a digital storage device adequate for serving as the repository for their works as the term progresses.

Each student must have with them during each class session a means of taking notes. These notes shall be retained by student.

Students will be assigned required readings from the following textbook:

- Grondzik, W.T., and Kwok A.G. 2014. *Mechanical and Electrical Equipment for Buildings* (MEEB), *Twelfth Edition*, New Jersey. John Wiley and Sons.

In addition, the following books are also recommended:

- Daniels, K. 2003. *Advanced Building Systems*, Berlin. Birkhäuser (Princeton Architectural Press).
- Greeno, R., and Hall, F. 2015. *Building Services Handbook: Incorporating Current Building & Construction Regulations. Eighth Edition*. Massachusetts. Elsevier Butterworth-Heinemann.

### Special Requirements

Students are required to have Rhino software with Grasshopper installed (Rhino 6 has Grasshopper already). Options to download Rhino for free or purchase it for educational purposes can be found using the link: <https://novedge.com/mcneel/rhino-3d-student/products/2572/download>

### Professional and Ethical Conduct

Just as clear and concise drawing is essential to the effective communication of architectural ideas so too is the clear and concise use of language, both spoken and written. ***The School of Architecture expects students to communicate their ideas effectively and in a professional manner. This includes handwriting or lettering which is legible, correct spelling, proper punctuation and grammar, and referential citations that meet the Chicago Manual of Style standards<sup>2</sup> for research and scholarly writing.*** All course work will be graded with consideration of these issues.

Work submitted shall constitute individual work, unless the instructor expressly indicates a group assignment. An idea, once documented in writing or in drawing, is the intellectual property of the author. When presenting an idea, phraseology, or drawing which is not your own, you are legally and ethically bound to identify your source. To do otherwise is plagiarism and constitute cheating. ***Plagiarism will not be tolerated in the School of Architecture. The penalty for cheating is a grade of F on the relevant work and may warrant further academic action including failure in the course, academic probation, or expulsion from the University.***

### Code of Academic Integrity Policy

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high-quality education in which

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<sup>2</sup> <http://www.chicagomanualofstyle.org/home.html>

no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see the Code of Academic Integrity in the University Regulations at [http://www.fau.edu/regulations/chapter4/4.001\\_Code\\_of\\_Academic\\_Integrity.pdf](http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf).

<b>Outside Employment</b>	While the School of Architecture is sensitive to the financial and professional needs of the student, outside employment is not considered an extenuating circumstance in cases of poor performance, excessive absences or failure to submit assigned work on schedule. Students who fail to adequately fulfill course and curriculum requirements while maintaining outside employment may be required to carry reduced course loads. A longer period in residence as a student may result from this reduction in course load.
<b>Student Work</b>	<b><i>The School of Architecture reserves the right to retain any and all student work for the purpose of record, exhibition, and instruction.</i></b> All students are encouraged to reproduce all work for their own records prior to submission of originals to the instructor. In the event of publication, the author of the work will be recognized and received full attribution.
<b>General</b>	Information concerning academic regulations, student rights and responsibilities may be found in the current Florida Atlantic University Catalog and Student Handbook.  <b><i>The College for Design and Social Inquiry prohibits audio or video recording of instructional activities in classrooms, laboratories, and studios without the expressed written consent of the instructor.</i></b> This does not apply to students receiving services from the Office with Student Disabilities. When the instructor's consent is given, the materials are for personal use only and are not for distribution or sale in any fashion.
<b>Counseling and Psychological Services (CAPS) Center</b>	Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing <b><i>FAU's Counseling and Psychological Services (CAPS) Center</i></b> . CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <a href="http://www.fau.edu/counseling/">http://www.fau.edu/counseling/</a>
<b>Disability Statement</b>	<i>In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at <a href="http://www.fau.edu/sas/">www.fau.edu/sas/</a>.</i>
<b>Credit Hour Policy</b>	Students are expected to work a minimum of 6 hours per week in addition to posted class hours.
<b>Bibliography</b>	American Society of Heating, Refrigerating and Air-Conditioning Engineers. 2009. <i>2009 ASHRAE Handbook Fundamentals</i> . Atlanta, ASHRAE. American Society of Heating, Refrigerating and Air-Conditioning Engineers. 2007. <i>2007 ASHRAE Handbook: Heating, Ventilating, and Air-Conditioning Applications, I-P Edition</i> . Atlanta, ASHRAE. Bell, A. 2007. <i>HVAC Equations, Data, and Rules of Thumb, Second Edition</i> . McGraw-Hill Professional.

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**Course topical outline** Please find course schedule attached below

Week	Day	Date	University Schedule	Topic	Activity
1	Tu Th F	08-20 08-22 08-23	<b>08-23: Last day to add/drop</b> <b>08-30: Last day to drop w/out Receiving a "w"</b>	Introduction & syllabus Energy overview	Reading: Chapter 2
2	Tu Th	08-27 08-29		Design fundamentals (Elements of environmental control systems) Passive environmental systems	Reading: Chapter 4 & 7 Reading: Overview of Chapter (8-11) <b>Project 1 assignment</b> Reading: Chapter 12
3	Tu Th	09-03 09-05		HVAC Systems: Equipment for heating and cooling HVAC Systems in small buildings	
4	Tu Th	09-10 09-12		HVAC Systems in large buildings Calculating heating & cooling loads	
5	M	09-16	<b>Last day to withdraw and receive 25% tuition</b>		
	Tu Th	09-17 09-19		Thermal load calculation & simulation Thermal load calculation & simulation	
6	Tu Th	09-24 09-26	<b>09/23-27 Midterm studio review</b>	Illumination Lighting design	Reading: Chapter 13 & 14 Reading: Chapter 15
7	Tu Th	10-01 10-03		Electric lighting Simulation of daylighting and artificial lighting	Reading: Chapter 16 & 17
8	Tu Th	10-08 10-10		Project 1 review Water and waste-water design	<b>Project 1 due</b> Reading: Chapter 18 <b>Project 2 assignment</b> Reading: Chapter (19-21)
9	Tu	10-15	<b>Midterm grades are available (10/11)</b>	Water and waste-water design	
	Th	10-17		Plumbing	
10	Tu Th	10-22 10-24		Acoustics (Sound theory, noise reduction) Fire protection (Fire resistance, EGRESS, <b>Fire alarm systems</b> )	Reading: Chapter (22-24) <b>Reading: Chapter 25</b> <b>Project 2 due &amp; Project 3 assignment</b>
11	Tu	10-29		Life safety	
	Th	10-31		Electricity basics and systems	Reading: Chapter 26 & 27
12	Tu Th	11-05 11-07		Electrical systems and Materials (wiring design) <b>Security and communication systems</b>	Reading: Chapter (28-30) <b>Reading: Chapter 31</b>
13	Tu Th	11-12 11-14		<b>Security and communication systems</b> Transportation systems	Reading: Chapter (32-34) <b>Project 3 due &amp; Project 4 assignment</b>
	F	11-15	<b>Last day to drop w/o receiving an "F"</b>		
14	Tu Th	11-19 11-21		Economic calculations Project 4 workshop	
15	Tu Th	11-26 11-28	<b>11/25-27 Final studio review</b> <b>Classes end 11-27</b> <b>11-28 until 12-01 Thanksgiving Break</b>	Project 4 review	<b>Project 4 due</b>
16	Tu Th	12-03 12-05	Reading Day Final Exams begin		
17	Tu Th	12-10 12-12		<b>Final Exam: 4:00 pm - 6:30 pm</b>	
18	M	12-16	Final Grades due in Registrar's Office 9:00 am		



Florida Atlantic University  
College for Design and Social Inquiry  
School of Architecture



## ARCHITECTURE | ENVISIONING FUTURE PRACTICE

### ARC5271 PROFESSIONAL PRACTICE 'A'

**SYLLABUS** | 3 Credit Hours Course Code: ARC5271 001 12579

**Instructor:** Andrew M. Hayes, AIA, NCARB, LEED AP  
**Office:** HE 607D M-W 11:00-12:00pm/by appt.  
**Phone:** 954.762.5654  
**Email:** [hayesa@fau.edu](mailto:hayesa@fau.edu)  
**Website:** <http://cdsi.fau.edu/soa/people/andrew-m-hayes-aia-leed-ap-ncarb/>

**Term:** Fall 2019  
**Class Meeting Days:** Tuesday & Thursday  
**Class Meeting Hours:** 5:00 – 6:20pm  
**Class Location:** HE 312

#### Course Description from Catalog

The first of a two course sequence focusing upon the professional practice of architecture. Introduces principles of professional office practice and its economic and business aspects and considers the historical, ethical and legal framework of the practice of architecture

#### Overview

Considerations of the historical, ethical and legal framework for architectural practice will be surveyed. Notions on the methods and principles of project management, financial matters, and business considerations will be examined closely.

Architectural practices focused in the supply-oriented delivery systems as well as demand-focused practices will be examined. We will consider the triple bottom line (social, environmental and economic) capital. Business development for architectural services utilizing entrepreneurial methods that drive and shape markets rather than react to them will also be discussed.

In the last decade or so, a number of forces have impacted the conventional practice of architecture in ways that could not have been foreseen. Founding a design practice now is more complex than ever, typically requiring significant amounts of start-up capital for technology and navigating through significantly more complex business regulations than in the past.

What will future architects need to do to survive in this demanding new economic environment? Will emerging architects be able to transform architectural practice by creating new business processes for design and construction in the 21<sup>st</sup> century? Is there a new practice method or model emerging to proactively expand opportunities that will allow future practitioners to flourish.

## **I. Welcome!**

The practice of architecture is in a constant state of flux, calling for increased analysis and new ways of thinking. This course seeks to add to the discourse regarding our profession evolves and remains relevant, seeking its place in the evolutionary global economic market of design services.

## **II. Course Objectives**

This course will provide understanding and assist the student with developing unique skills to make informed decisions in their future chosen professional path. Upon completion of this course, students will know and understand the following:

- Shape an understanding that design thinking and architectural education have intrinsic value beyond the boundaries of traditional architectural practice
- Develop an entrepreneurial awareness in students there are multiple practice models emerging and new markets that may provide increased opportunities for creative design practices outside of the mainstream
- Create a recognition that the disparate needs of the underserved may offer opportunities for unconventional practice models that fulfill a yet unmet need for architecture, planning and urban design services
- Expand the perception that there are in fact global opportunities for future architectural practice through digital communication and collaborative processes
- Acquaint students with the potential risks and pitfalls possible when starting an architectural practice utilizing new processes, technologies, materials and methods that need to be seriously considered in order to be sustainable over time
- Raise awareness of the need to keep abreast of global and local trends that could affect the practice of architecture and may possibly offer new opportunities

## **III. Required Texts and Materials**

- Evil Plans: Having Fun on the Road to World Domination, MacLeod, Hugh. (Penguin Group 2011) ISBN 9781591843849 <http://gapingvoid.com/ep/>
- How Firms Succeed, Cramer, James P., and Simpson, Scott. (Greenway Comm. 2002), ISBN, 0-9675477-8-4

### **Supplementary (Optional) Texts and Materials**

- Architecture for Rapid Change and Scarce Resources, Sinha, Sumita (Routledge, 2012), ISBN, 978-1-84971-116. <http://www.thecass.com/research1/research/arcsr#>

## **IV. Guest Lecturer Series & In-class Guest Lecturers**

- As part of the grading for this course you are required to attend all of the guest lectures that occur on Tuesday or Thursday evenings. You will also be required to ask one question of a guest lecturer during the course of the semester. You have been assigned the lecturer to whom you will be asking the question; look for your name in the syllabus.
- This question is worth one quarter of your participation grade, or 2.5 % of the total semester grade; with attendance at all four guest lectures is also worth half of your participation grade or 2.5%. To receive credit for attendance you must sign the attendance sheet; NO exceptions other than a doctor's note.
- The question is due one week prior to the lecture for review and comment. See syllabus course schedule for your particular week.
- Questions must show thought and intellectual rigor with regard to the lecturer and her/his respective topic. Questions which demonstrate little intellectual thought, such as 'Who was your favorite architect?' Will receive zero credit.



## V. Grading

Grades will be based upon the following:

- **Class participation** – this includes attendance, timely arrival, attentiveness, taking notes, active participation discussions during 'B' portion of class
- **Assignments** of incremental progress over the duration of the term through quizzes & completed assignments
- **Mid-term exam** - students must attend on the assigned date at the designated time
- **Final Exam** - Students must attend on the assigned date at the designated time

### **100 total points possible + additional point opportunities**

Assessment	Percent of Final Grade
Class Participation – Guest Lecture Questions	10%
Quizzes, Writing Assignments & Other Assignments	30%
Mid-term Examination	25%
Final Examination	35%
Total Grade	100%

Outside of class time, it is expected that, on average, each student will work a minimum of 6 hours per week on readings, homework assignments, research papers, interactive tutorials, study groups or projects.

Grading scale:

Grading Scale (%)		
90 – 93 = A-	94 – 96 = A	97 – 100 = A+
80 – 83 = B-	84 – 86 = B	87 – 89 = B+
70 – 73 = C-	74 – 76 = C	77 – 79 = C+
60 – 69 = D-	64 – 66 = D	67 – 69 = D+
59 and below = F		

### Grade Dissemination

Graded materials in this course will be returned to each individual within the context of the course. You can access your scores at any time using the Grade function of Canvas. Please note that scores returned mid-semester are unofficial grades.

## VI. Course Policies: Grades

### **Late Work Policy:**

Assignments and essays turned in late will be assessed a penalty: a half-letter grade if it is one day late, or a full-letter grade for 2-7 days late. Essays will not be accepted if overdue by more than seven days.

### **Grades of "Incomplete":**

The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

**Essay Commentary Policy:** Commentary on essays will be delivered in written format, at the end of the essay. However, upon request, an alternate delivery method can be used. If desired, instructor comments will be made verbally and delivered to the student

as an mp3 through Canvas. This approach yields far fewer written comments, but much more commentary in general is delivered, due to the speed and specificity of speech. Those requesting mp3 feedback must state so when the essay is turned in.

## **VII. Course Policies: Miscellaneous**

**Canvas:** Canvas, will be used in the course, students should expect to login weekly and within 24 hours prior to the scheduled class time, reading will be available and assignments will be submitted using this media.

**Laptop Usage:** Laptops may be used to take notes during the course but must be silenced and cannot create noise. Not adhering to this policy will result in denial of use of your laptop throughout the remainder of the lecture. A third noise infraction during the semester will result in a ban on use of a laptop for that particular student for remainder of the semester.

**Phone Usage:** Use of cellular phones for any reason during class is strictly prohibited unless it is necessary to resolve some type of physical disability. NO texting or surfing the Internet is allowed during class time. Students are prohibited from taking photos/video/audio during class. This includes photos of blackboards/ whiteboard at the end of the class.

**Disability Statement:** In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at [www.fau.edu/sas/](http://www.fau.edu/sas/).

**Code of Academic Integrity Policy:** *Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see [University Regulation 4.001](#). If your college has particular policies relating to cheating and plagiarism, state so here or provide a link to the full policy—but be sure the college policy does not conflict with the University Regulation.*

## **VIII. Course Policies: Student Expectations**

### **Attendance Policy:**

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class



meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

**Counseling and Psychological Services (CAPS) Center:**

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

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**Professionalism Policy:** Per university policy and classroom etiquette; mobile phones, iPods, etc. **must be silenced** during all classroom lectures and discussions. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, etc., and have been warned may suffer a reduction in their final class grade.

**Academic Conduct Policy:** Academic dishonesty in any form will not be tolerated. If you are uncertain as to what constitutes academic dishonesty, consult the FAU's Student Handbook for further details. Violations of these rules will result in a record of the infraction being placed in your file and receiving a zero on the work in question AT A MINIMUM. At the instructor's discretion, you may also receive a failing grade for the course. Confirmation of such incidents can also result in expulsion from the University.

**End of Semester Student Evaluations:** All classes at FAU make use of an online system for students to provide feedback to the University regarding the course. These surveys will be made available at the end of the semester, and the University will notify you by email when the response window opens. Your participation is highly encouraged and valued. The results of student feedback are sent to departments and faculty members only after semester grades are already submitted, and student responses are reported only anonymously and in the aggregate to faculty.

**Religious Observances:** Students are expected to notify their instructor in advance if they intend to miss class to observe a holy day of their religious faith.

## **COURSE SCHEDULE**

### **MODULE 'A': WEEKS 1-3 | PRACTICE: Succeeding in the Architectural Realm**

#### **Week 1 – Tuesday 8/20**

##### **Readings for 8.20 lecture:**

- a. Course Syllabus, Canvas
- b. Firmness | Commodity | Delight, Canvas
- c. Practice versus Project, Stanley Allen, Canvas

##### **8.20 Course Overview**

- Curriculum, Schedule & Grading etc. Review
- What Makes You a Professional?
- Practice versus Project
- Legal & Administrative Oversight
- Four Legal/Organizational Structures of Practice
- Stewardship & Leadership
- Reasonable Standard of Care
- The difference between: Laws, Ethics & Virtues
- Types of Ethics: Virtue/Duty/Consequential/Relativistic
- Contracts – The Relationship between Owner Architect & Contractor
- Project Management & Managing Expectations
- Construction Contract Administration – Responsibilities on the Job Site
  
- Speaker Series: Professional Development & Community Engagement

## **Week 1 – Thursday 8/22**

### **Readings for 8.22 lecture:**

- a. Ethics Reading, Canvas
- b. Florida Statute 481  
[http://www.leg.state.fl.us/Statutes/index.cfm?App\\_mode=Display\\_Statute&URL=0400-0499/0481/0481ContentsIndex.html](http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&URL=0400-0499/0481/0481ContentsIndex.html)
- c. Florida Administrative Code 61G1  
<https://www.flrules.org/gateway/division.asp?DivID=263>

### **8.22 Welcome to the Hunger, Professional Ethics & Professional Standards**

- So What's YOUR Evil Plan? The hunger to.....?
- Professional Ethics
- What are ethics anyway?
  - The difference between:
    - Laws | Ethics | Virtues
  - Four Types of Ethics
    - Virtue/Duty/Consequential/Relativistic
    - Employment of Ethics in business, design and technical matters

#### Professional Standards & Architectural Registration

- Regulation of the profession of architecture in Florida
  - Florida Statute 481 & Florida Administrative Code 61-G1
  - NCARB
- Exceptions to requirements for licensure – F.S. 481.229
- What is a reasonable standard of care? Who defines it? The difference between:
  - Florida Statute 481.201– Minimum standards of Safe Practice
  - AIA Requirements – Reasonable Standard of Care
  - Common Law (Industry) Standard

### **Writing Assignment One:** Essay (500 words minimum) on Professional Ethics

**Due: Uploaded into Canvas NO LATER THAN 500pm Thursday August 29, 2019**

Scenario: It is ten years since you graduated from architecture school. You have recently passed the Architectural Registration Examination and you are now a registered architect. You realize that from this point forward you will be held to a reasonable standard of care in everything you do professionally. This realization has made you decide that it is time to, either start your own firm or, go to work for a firm that shares your own professional ethics and goals; as the firm where you are currently employed does not.

It is time to begin a critical consideration of your own professional philosophies for ethics. In researching ethics, you may want to consider the ethical standards of the American Institute of Architects (AIA) as a starting point for the method in which you determine how the ethical practice of architecture should be conducted.

In this paper, develop your own profession creed. Create six bullet statements that begin to establish your own professional ethics. At a minimum, write two statements about your own ethical standards for design, continued professional growth and standards for professional methods.

## **Week 2 – Tuesday 8/27**

### **Guest Lecture Questions Due by 5:00pm**

One questions from each student for Michael Rubin by:

Melissa Arvelo, Alexander Capistrano, Bruno Esteves, Leslie Gonzalez Gonzalez, Juan Hernandez, Reeba Mansukhani, Catherine Prudhomme, Isabella Spencer, Pablo Vega

### **Readings for 8.27 lecture:**

- a. Evil Plans: The Hunger, Canvas
- b. Architectural Experience Program – AXP (formerly IDP)  
<http://www.ncarb.org/Experience-Through-Internships.aspx>
- c. Architecture Registration Exam (ARE) 5.0  
[http://www.ncarb.org/ARE/~media/Files/PDF/Guidelines/ARE\\_Guidelines.pdf](http://www.ncarb.org/ARE/~media/Files/PDF/Guidelines/ARE_Guidelines.pdf)
- d. Divisions of the ARE  
<http://www.ncarb.org/ARE/Taking-the-ARE/ARE4-Divisions.aspx>
- e. Florida Statute 481  
[http://www.leg.state.fl.us/Statutes/index.cfm?App\\_mode=Display\\_Statute&URL=0400-0499/0481/0481ContentsIndex.html](http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&URL=0400-0499/0481/0481ContentsIndex.html)
- f. Florida Administrative Code 61G1  
<https://www.flrules.org/gateway/division.asp?DivID=263>

### **8:27 The professional practice of Architecture**

#### Legal Requirements versus Professional Standards

- Architectural Experience Program – AXP: Six Practice Based Divisions
  - PCM | PRACTICE MANAGEMENT
  - PJM | PROJECT MANAGEMENT
  - PA | PROGRAMMING & ANALYSIS
  - PPD | PROJECT PLANNING & DESIGN
  - PDD | PROJCT DEVELOPMENT & DOCUMENTATION
  - CE | CONSTRUCTION & EVALUATION
- Architecture Registration Exam (ARE) ARE 5.0
  - 5 Steps for Passing the ARE & Divisions of the ARE
- Responsible Supervisory Control
  - 61G1-23.010 Responsible Supervising Control Over Architectural Practice
  - 61G1-23.030 Standards for Architectural Supervision in Marketing Offices
- Continuing Education
  - State of Florida Requirements versus AIA Requirements
  - 61G1-24.001 Continuing Education for Architects
- Professional Standards for Conduct
  - AIA Code of Ethics & NCARB Rules of Conduct

## **Week 2 – Thursday 8/29**

### **Writing Assignment One Due**

### **Readings for 8.29 lecture:**

- a. Spend 5 minutes on site: <http://www.michaelrubinarchitects.com/>

### **Guest Lecturer**

Speaker: **Michael Rubin**, Architect

### **No Writing Assignment This Week – Study for Quiz #1:**

## **Week 3 – Tuesday 9/03**

**Quiz Number One:** Ten Short Answer Questions

### **Review Writing Assignment 1**

#### **Readings for 9.03 lecture:**

- a. Evil Plans: Sleep Rough, Canvas
- b. Projects versus Practice
- c. Typical Project Schedule
  - Typical Design Services Handout, Canvas
  - Typical Construction Schedule Handout, Canvas
  - Schedule of Values Example, Canvas

#### **9.03 Creating the Work**

##### Projects within a Practice

- d. Typical Project Schedule
  - i. Typical Design Services
  - ii. Typical Construction Schedule
  - iii. Schedule of Values

### **Week 3 – Thursday 9/05**

#### **Readings for 9.05 lecture:**

- a. Evil Plans, Keep It Simple, Canvas
- b. City of Ft Lauderdale Code of Ordinances  
[https://www.municode.com/library/fl/fort\\_lauderdale/codes/code\\_of\\_ordinances](https://www.municode.com/library/fl/fort_lauderdale/codes/code_of_ordinances)
- c. Florida Building Code On-line  
<http://floridabuilding2.iccsafe.org/>
- d. Florida Fire Prevention Code  
<http://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/free-access?mode=view>
- e. Americans with Disabilities Act /2012 Florida Accessibility Code  
[https://www.ada.gov/ada\\_intro.htm](https://www.ada.gov/ada_intro.htm)
- f. US Green Building Council – LEED Certification  
<http://www.usgbc.org/leed>

#### **9.05 Rules of the Playground**

##### **Local & State Regulations - Life Safety & Building Codes**

- Local Ordinances
  - Land Use & Zoning Ordinances
    - City of Ft Lauderdale Code of Ordinances
    - Neighborhood Master Plans
    - Regional Transportation Planning
- State Building Code and Life Safety Codes
  - Florida Fire Prevention Code
  - Florida Building Code On-line
  - Florida Energy Code/ US Green Building Council – LEED Certification

##### **Federal Regulations : Laws/Codes to be aware of**

- Americans with Disabilities Act /2012 Florida Accessibility Code
- Federal Fair Housing Act

#### **Writing Assignment Two:** Essay (300 words min.) on Professional Standards & Career Goals

**Due: Uploaded into Canvas NO LATER THAN 500pm Thursday September 12, 2019**

Scenario: You are at a crossroads and trying to determine if it even makes sense for you to put the effort into passing the Architectural Registration Examination. You have considered alternative practice models as well as non-traditional roles for practice

Assignment: Take some time and think critically about the type of work and projects you are most passionate about. Look forward twenty five (25) years and envision the type of career you wish to have at that time. Think about this in the context of your very own 'evil' plan. Describe your plan and career in detail as a series of moments in time. Focus on the following moments: five years from graduation....ten years and 26 yrs from graduation. Will you have your own firm? ... or will you be working for someone else?

Discuss the type of work you want to be creating in 25 years. Define success as you desire it at that point in time. Think about the building types that you are most interested in and will focus upon. Or you will be building things perhaps? Maybe even focusing on urban scale projects or possibly planning. Also consider and describe the types of clients you wish to work with. Will your goals require you to pass the A.R.E?

## **MODULE 'B': WEEKS 4-10 | PROFESSIONALISM: Standards, Methods, Culture & Management**

### **Week 4 – Tuesday 9/10**

#### **Readings for 9.10 lecture:**

- a. Evil Plans: Make Art Every Day!
- b. Architecture, Leadership & Influence
- c. Actions to Get Involved in Public Interest Design

### **9.10 Charting Our Professional & Creative Path**

#### **Make Art Every Day!**

#### **Planning your Career**

- i. Traditional Roles
  - 1. Private Practice
  - 2. Owner's Representative
  - 3. Teaching
- ii. Non-traditional roles
  - 1. Urban Designer/Planner
  - 2. Fabricator/Maker
  - 3. Design/Builder
  - 4. Manufacturer's Representative
- iii. Government Service
  - 1. Municipal Architect
  - 2. Project Manager
- iv. Community Service
  - 1. Non-profit Leadership
  - 2. Community Design Center
- v. Industry Leadership
  - 1. Professional Organization
  - 2.



## **Week 4 – Thursday 9/12**

### **9.17 | Assignments Due –**

- **Writing Assignment Two Due by 5:00pm**

### **Readings for 9.12 lecture:**

- a. Evil Plans, Remember Who You Really Are
- b. Architectural Firm Business Strategies – Type versus Capabilities
- c. How to Draft A Business Plan

### **9.12 Strategies for Success**

#### Types and Capabilities of Various Architecture Firms

##### Organizational Values

- Practice Centered Business
- Business Centered Practice

##### Design Technologies

- Strong Delivery
- Strong Service
- Strong Idea

#### Resource Based View of Architectural Firms

- Valuable in enabling the firm to exploit opportunities and counter threats.
- Rare among competitor organizations.
- Imperfectly imitable.
- Not easily substitutable

**Writing Assignment Three:** Essay (300 words min.) on Community and Industry Leadership

**Due: Uploaded into Canvas NO LATER THAN 500pm Thursday September 19, 2019**

Scenario: Discuss how you would be comfortable assuming a leadership role (not AIA service) within the local area that would benefit your community and/or the construction industry.

What issues are you passionate about? Think about how would you become a subject matter expert on your chosen issue? In gaining this expertise, you would earn the respect of your professional colleagues and business associates. They would look to you for leadership in these matters and possibly you would also be sought out by the media to comment publicly.

## **Week 5 – Tuesday 9/17**

### **9.17 | Assignments Due –**

- **Review Writing Assignment 2**

### **Readings for 9.17 lecture:**

- a. Evil Plans: Keep It Simple
- b. The Business of Architecture – 2012 AIA Survey, Report on Firm Characteristics
- c. Strategic Planning for the Design Firm
- d. Legal Structure of Architectural Firms

### **9.17 Organizing for Success**

#### Firm start up

- Business Planning
- Strategic Planning

#### Legal and Tax Implications of Starting a Practice

##### Legal Structure & Organization

- The Business of Architecture – F.S. 481.219
- Organizational Forms of Practice
  - i. Legal Structures – Sole Proprietor
  - ii. Partnership
  - iii. Corporation / Professional Association

##### Tax Implications

- Personal versus Business
- Corporations, Type 'C' versus Type 'S'
- Not For Profit – 501c(3)
  - i. Architecture for Humanity

## **Week 5 – Thursday 9/19**

### **9.19 | Assignments Due –**

- **Writing Assignment Three Due by 5:00pm**

### **Readings for 9.19 lecture:**

- a. Financial Statements for Architects
- b. Financial Management for Small Firms

### **9.19 Firm Planning & Culture**

#### Keep It Simple

#### Firm Planning

- Strategic Planning
  - i. Catalytic Decisions
- Financial Planning
  - i. Financial Management for Small Firms
  - ii. Financial Statements for Architects

All available on Canvas

**Writing Assignment Four:** Essay (300 words min.) on Professional Standards & Career Goals  
**Due: Uploaded into Canvas NO LATER THAN 500pm Thursday September 26, 2019**

Scenario: Choose one of the firm typologies (Strong Idea, Design Focused or Service Focused) and select an actual firm that you believe fits into the category you select. Discuss why you think this type of firm interests you. Also, discuss what values attract you to this type of practice and why it would be the best fit for you.

Consider what steps you would take to establish a new firm with a strong presence in the local community as either a founding member, or key employee. Include at least one paragraph on how this type of firms aligns with your personal morals/ professional ethics.

**Do not forget to study for the Quiz!!**

## **Week 6 – Tuesday 9/24**

**Quiz Number Two:** Seven Short Answer & One Essay Question

- **Review Quiz 2**

**9.24 | Assignments Due –**

- **Review Writing Assignment Three**

**Readings for 9.24 lecture:**

- a. Evil Plans: The Market for Something to Believe In
- b. Marketing Lessons
- c. Design is Good Business

**9.24: Lecture**

Marketing Design Services

- Demand focused firms versus Supply focused firms
- Emerging Markets for design services
- Underserved constituencies & opportunities to open up new markets

Supply Side versus Demand Side Firms

- Demand Driven Firms
- Supply Driven Firms

## **Week 6 – Thursday 9/26**

**9.26 | Assignments Due –**

- **Writing Assignment Four Due by 5:00pm**

**Readings for 9.26 lecture:**

- a. Standard of Care
- b. Risk Management Overview
- c. Florida Professional Malpractice Law: Liability of Design Professionals
- d. Critical Risk Management

**9.26: Lecture**

Firm Management & Risk Management

- Understanding the Standard of Care
- Risk Management Overview
- Architectural Malpractice in Florida

## **Week 7 – 10/1 & 10/3**

### **10.01 | Assignments Due –**

- Review Wiring Assignment Four

### **10.1 Mid-term Examination Preparation**

- Review of Course Material presented to this point that could possibly be on the Mid-term Examination
- Twenty Five (25) Short Answer Questions
- Two essay questions

**No Reading or Writing Assignments: STUDY FOR THE MID-TERM EXAM !!!**

## **Week 7 – 10/3**

### **10.03 | B: Mid-term Examination**

**Writing Assignment Five:** Essay (300 words min.) Understanding the Standard of Care  
**Due: Uploaded into Canvas NO LATER THAN 500pm Thursday October 10, 2019**

Scenarios: Compare and contrast the potential risks to ensuring a project meets the reasonable standard of care required by statute when:

- all of your architectural production and support staff are located in another branch office of your firm more than 200 miles away
- your consultants are all located out of state, but licensed to practice in Florida
- you are partnered with a nationally recognized design architect, who is not licensed in the state of Florida, and you/your firm is the architect of record

## **Week 8 – 10/8 & 10/10**

### **10/8 Class**

#### **10.8 Mid-term Examination Review**

- Review of :
  - Twenty Five (25) Short Answer Questions
  - Two essay questions

### **10/10 Class**

#### **10.10 | Assignments Due**

**Writing Assignment Five Due by 5:00pm**

**Lecture Series – Hsinming Fung Questions (Group 2) Due by 5:00pm**

#### **Readings for 10.10 Lecture:**

- a. Duhaime's Law Dictionary – Meeting of the Minds
- b. Ten Things to Think About Before Signing a Construction Contract
- c. AIA Documents by Family Overview
  - i. A, B, C, D, F & G Series Documents

All available on Canvas

#### **10.10 Contracts Overview**

##### A Meeting of Minds - How to Manage Expectations

- What is a 'meeting of the minds'?
- Basic Elements & Actions of a Contract
- How do we manage the expectations of:
  - i. Client | Users | Public | Others

##### Contractual Relationships & Responsibilities - AIA Documents Overview

- AIA B101-2007, Agreement Between Owner & Architect
- AIA A101-2007, Agreement Between Owner & Contractor
  - Articles 1, 2, 3 & 9
- AIA A201-2007 General Conditions of the Contract for Construction

#### **No Writing Assignment this Week – Study for Quiz #3**

## **Week 9 – 10/15 & 10/17**

### **10/15 Class**

#### **Quiz Three** - Seven Short Answer Questions & One Essay Question

- **Review Quiz Three**

#### **Readings for 10.15 lecture**

- a. AIA Document B101-2007 Overview
- b. AIA Document B101-2007: Standard Form of Agreement Between Owner & Architect  
All available on Canvas

### **10.15 AIA Documents – AIA B101-2007, Agreement between Owner & Architect**

#### **Levels of Architectural Services**

- Managing the Architect's Consultants
  - Standard Basic Services
    - Civil (various contractual relationships)
    - Landscape
    - Structural
    - Mechanical (Plumbing & HVAC)
    - Electrical
  - Expanded Services; the above consultants plus:
    - Landscape
    - Interior Design
  - Comprehensive Services; the above two categories plus:
    - Specialty Design (Acoustical, Signage, Laboratory, Food Service etc.)
    - LEED/Green Certification
    - Specialty Systems (Solar, Fuel, Sound)
    - **Cost Estimating**

### **10/17 Class**

#### **Review - Writing Assignment Five**

#### **Readings for 10.17 lecture:**

- a. Performance & Discharge of Contracts
- b. The Importance of a positive Architect-Contractor Relationship
- c. Contract Law & Liquidated Damages
- d. AIA Document B101-2007: Standard Form of Agreement Between Owner and Architect: Articles 1, 2, 3, 5, 7, 8, 9 & 10

### **10.17 Delivering What you Agreed to Deliver – Instruments of Service**

#### **Architectural Deliverables:**

- Bidding Requirements
- Contract Forms & General/Special Conditions
- Specifications
- Drawings

#### **Packages for specific purposes:**

- Bidding Documents
- Project Manual
- Contract Documents
- Addenda & Contract Modifications



## **Week 10 – 10/22 & 10/24**

### **10/22 Class**

#### **10.22 | Assignments Due:**

- None

#### **Readings for 10.22 lecture**

- c. AIA Document A201-2007 Overview
- d. AIA Document A201-2007: Standard Form of Agreement Between Owner & Contractor
- e. Ten Things to Think About Before Signing a Construction Contract

#### **10.22 AIA A101-2007 AIA B101-2007, Agreement between Owner & Contractor**

- AIA A101-2007, Agreement Between Owner & Contractor
  - Article 1 – The Contract Documents
  - Article 3 – Date of Commencement & Substantial Completion
  - Article 5 - Payments
  - Article 6 – Dispute Resolution

### **10/24 Class**

#### **Readings for next lecture**

- a. The Contractor & the Architect: The Lost Art of Communication
- All available on Canvas

#### **10.24 | AIA Documents – Different Types of Project Delivery**

- Considerations for Various Methods:
  - Design | Bid | Build
  - Design | Build
  - Construction Management (No Risk or At Risk)

**Writing Assignment Six:** Essay (300 words min.) Atypical Project Delivery Methods: Balancing Expectations, Values & Ethics

**Due: Uploaded into Canvas NO LATER THAN 500pm Thursday October 31, 2019**

Scenario: You have been working in the architectural profession for almost ten years in a practice that delivers projects in the traditional manner of design/bid/build. During this time you are used to having direct contact and interaction with the client.

You decide to go to work for a design/build firm and discover that although you are now the leader of the architectural design team, you no longer have direct contact with the client. Instead, there is a Project Manager, who has a Construction Management degree but no design experience, meeting with the client and giving you direction. Discuss what potential issues should you be concerned with?

## **MODULE 'C': WEEKS 11-12 | LEADERSHIP: Taking Responsibility through Action**

### **Week 11 – 10/29 & 10/31**

#### **10/29 Class**

##### **10.29 Assignments Due:**

- **Lecture Series – Christina Crawford Questions (Group 3) Due by 5:00pm**

##### **Readings for 10.29 lecture**

- a. AIA Document A201-2007 Overview
- b. AIA A201-2007 General Conditions of the Contract for Construction

##### **10.29 | B: AIA A201-2007 General Conditions of the Contract for Construction**

- General Conditions versus Special or Supplementary Conditions
- Overview
- Key Articles:
  2. Owner
  3. Architect
  4. General Contractor
  7. Changes the Work
  8. Time
  9. Payments and Completion

#### **10/31 Class**

##### **10.31 Assignments Due:**

- **Writing Assignment Six due by 5:00pm**

##### **Readings for 10.31 Lecture**

- a. The importance of A Positive Architect-Contractor Relationship
- b. Five Ways Architects Are Redefining Craft

All available on Blackboard

##### **10.31 | B: Contractual Relationships Versus Working Relationships**

- Contractual Relationships
  - Owner – Architect | Owner – Contractor
  - Contractor - Subcontractor
  - Architect - Consultants
- Working Relationships: Architect – Contractor

##### **No Writing Assignment this Week – Study For Quiz #4**

## **Week 12 – 11/5 & 11/7**

### **11/5 Class**

**Quiz Number Four:** Ten Questions + One Essay

#### **11.05 Assignments Due –**

- None

#### **Readings for next lecture**

- a. The True Measure of Stewardship: Service to Society
- b. NCARB: Ethics & Professional Rules of Conduct

All available on Blackboard

#### **11.05 Stewardship as Part of Professional Life**

##### The Employment of Stewardship

- Stewardship Through Service to Society
- Environmental Stewardship
- The Difference between Your Legal Responsibilities and Moral Imperatives
  - Ethics & Professional Rules of Conduct

##### Stewardship in Action: Public Interest Design

- Rebuild by Design – Review Winning Strategies

### **11.7 Class**

#### **11.07 Assignments Due –**

- Lecture Series – Olga Touloumi (Group 4) Due by 5:00pm
- Review - Writing Assignment Six

#### **Readings for next lecture**

- a. How 'Green' is Demolition?

#### **11.06 | B: Sustainability**

##### Sustainability - Trends in Resilience Design

- 'Green' Buildings
- Materials for Resilience: Physical, Social & Economic

**Writing Assignment Seven:** Essay (300 words min.) The Architect-Contractor Relationship  
**Due: Uploaded into Canvas NO LATER THAN 500pm Thursday November 14, 2019**

Scenario: Using the AIA-201 General Conditions, discuss the working relationship between the Architect and the Contractor. What authority does the Architect have to direct the work of the Contractor? What responsibility does the Architect have in resolving disputes? How does the Architect utilize the Owner to direct the Architect?

## **MODULE 'D': WEEKS 13-15 | CRAFT: Developing Techniques Through Experience**

### **Week 13 – 11/12 & 11/14**

#### **11/12 Class**

##### **11.13 | Assignments Due-**

- **Review – Quiz Four**

##### **Readings for 11/12 lecture:**

- a. Prepare Yourself
- b. Leadership on the Jobsite
- c. Case Study - Project 1

All available on Canvas

#### **11/14 Class**

##### **11.14 Assignments Due:**

- **Writing Assignment Seven due by 5:00pm**
- **Lecture Series – Claire Weisz (Group 5) Due by 5:00pm**

##### **Readings for 10.14 lecture:**

- a. Three Industry Trends to Expect in Architectural Practice
- b. Rules of Engagement
- c. Rules of the Playground
- d. Project Documentation
- e. Case Study – Project 2

##### **11.14 Ethical Responsibilities and Stewardship**

- Emerging Resilience Design in South Florida
- Land Use Regulations and Sea Level Rise
- The Need to Modify Building Codes in anticipation of Sea Level Rise

All available on Canvas

**Writing Assignment Eight:** Essay (300 words min.) Construction Contract Administration

**Due: Uploaded into Canvas NO LATER THAN 500pm Thursday November 21, 2019**

Scenario: Using the two assigned readings titled Prepare Yourself and Leadership on the Jobsite discuss what steps you will personally take to prepare yourself for your first assignment to be responsible for the construction contract administration of a project that you have designed. What do you feel it is important to do to lead that process?

## **Week 14 – 11/19 & 11/21**

### **11/19 Class**

#### **11.19 Assignments Due:**

- **Writing Assignment Eight Due by 5:00pm**
- **Review Writing Assignment Seven**

#### **Readings for 10.19 lecture:**

- a. Architectural Services During Construction Administration

#### **11.19 | Construction Administration - The Building is a Product of your Service**

- Understanding the Priorities of Your Client
- Training Yourself for Construction Administration
- Leveraging Your Position as a Leader to be Effective on the Job Site
- Case Study - Project 1

### **11/21 Class**

#### **11.21 Assignments Due:**

**Writing Assignment Eight due by 5:00pm**

#### **Readings for 10.21 lecture:**

- a. Contract Administration – Architect Wears Three Hats

#### **11.21 Thought Leadership on Emerging Issues for Future Practice**

- The Reflective Practitioner & Thought Leadership
- Dare We Call It Thought Leadership

#### **Quiz No . 5 (Take Home)**

- i. Contractual Responsibilities between Owner, Architect & Contractor
  - i. How the A101, B101 & A201 work together
- ii. Your Responsibilities to Hold Yourself and Others Accountable
- iii. The Importance of Clear Communication & Timely Documentation
- iv. Case Study – Project 2
- v. Managing Expectations

## **Week 15 – 11/26 & 11/28**

### **11/26 Class**

#### **11.26 Assignments Due-**

- Take Home Quiz Due by 500pm on 11/26/2018

#### **Review Take Home Quiz 5**

#### **Review - Writing Assignment Eight**

#### **11.26 Final Examination Preparation & Overview**

- What Makes You a Professional?
  - Legal & Administrative Oversight
  - Licensure
  - Standards
  - Continuing Education
- The difference between: Laws, Ethics & Virtues
- Types of Ethics: Virtue/Duty/Consequential/Relativistic
- Land Use Ordinances, Life Safety & Building Codes
- Organizational Structures of Practice – Legal & Tax Implications
- Stewardship & Leadership
- Business Development & Marketing
- Reasonable Standard of Care
- Instruments of Service & Copyright
- Project Management & Managing Expectations
- Contracts – A Meeting of the Minds
- The Relationship between Owner, Architect & Contractor
- AIA Documents
  - AIA B101-2007, Agreement Between Owner & Architect
  - AIA A101-2007, Agreement Between Owner & Contractor
  - AIA A201-2007, General Condition of the Contract for Construction
- Project Delivery Methods
  - Design/Bid/Build
  - Design/Build
  - Construction Management
- Construction Contract Administration – Responsibilities on the Job Site

### **11/28 No Class - Thanksgiving**

## **Week 16 – NO CLASSES - Reading Days**

### **Week 17**

#### **12.10 | FINAL EXAMINATION - 4:00pm – 6:30pm**

## **2016 NAAB EDUCATIONAL REALMS & STUDENT PERFORMANCE CRITERIA**

**This course addresses the following Student Performance Criteria identified by the 2015 NAAB Procedures for Accreditation:**

### **Primary:**

- D.1 Stakeholder Roles in Architecture
- D.2 Project Management
- D.3 Business Practices
- D.4 Legal Responsibilities
- D.5 Professional Conduct

### **Secondary:**

**B.10 Financial Considerations**

### **Realm B: Building Practices, Technical Skills and Knowledge:**

B.10 Financial Considerations: Understanding of the fundamentals of building costs, which must include project financing methods and feasibility, construction cost estimating, construction scheduling, operational costs, and life-cycle costs.

### **Realm D: Professional Practice.**

D.1 Stakeholder Roles In Architecture: *Understanding* of the relationship between the client, contractor, architect and other key stakeholders such as user groups and the community, in the design of the built environment. Understanding the responsibilities of the architect to reconcile the needs of those stakeholders

D.2 Project Management: Understanding of the methods for selecting consultants and assembling teams, identifying work plans, project schedules and time requirements, and recommending project delivery methods.

D.3 Business Practices: Understanding of the basic principles of business practices within the firm including financial management and business planning, marketing, business organization, and entrepreneurialism.

D.4 Legal Responsibilities: Understanding the architect's responsibility to the public and the client as determined by regulations and legal considerations involving the practice of architecture and professional service contracts.

D.5 Professional Conduct: Understanding of the ethical issues involved in the exercise of professional judgment in architectural design and practice, and understanding the role of the AIA Code of Ethics.





Florida Atlantic University  
College for Design and Social Inquiry  
School of Architecture

## ARCHITECTURE | PRACTICES OF PRAXIS

### ARC5272 PROFESSIONAL PRACTICE 'B'

**SYLLABUS** | 3 Credit Hours Course Code: ARC5272 001 12517

**Instructor:** Andrew M. Hayes, AIA, NCARB, LEED AP

**Office:** HE 607D T-Th 11:00-12:00pm/by appt.

**Phone:** 954.762.5184

**Email:** [hayesa@fau.edu](mailto:hayesa@fau.edu)

**Website:** <http://cdsi.fau.edu/soa/people/andrew-m-hayes-aia-leed-ap-ncarb/>

**Term:** Spring 2019

**Class Meeting Days:** Tuesday

**Class Meeting Hours:** 6:00 – 8:30pm

**Class Location:** HE 312

#### Course Description from Catalog

The second of a two course sequence focusing upon the professional practice of architecture. Introduction to cash flow and discounting techniques, project financial analysis, cost allocation, income tax considerations, project economic analysis and life-cycle costing. Follows IDP and ARE guidelines.

#### Overview

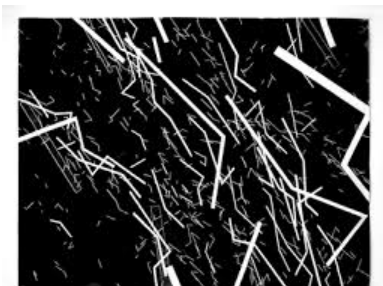
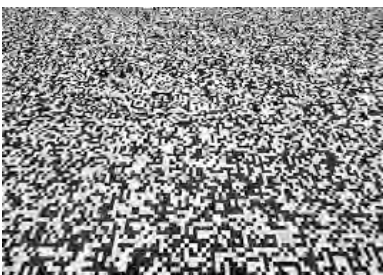
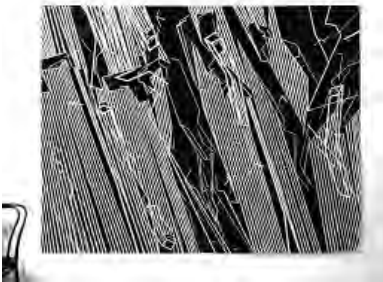
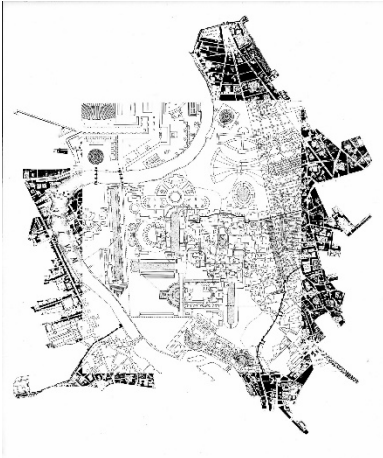
Introduces the competing categories of discursive practices versus material practices as employed through intellectual methods of the practice of architecture.

Considerations of the intellectual exercise of legal frameworks in regard to tax implications will be surveyed. Methods and principles of project management, financial matters, and business considerations will be examined closely.

Architectural practices focused in the supply-oriented delivery systems will be focused upon. We will consider the triple bottom line (social, environmental and economic) capital. Business development for architectural services utilizing entrepreneurial methods that drive and shape markets rather than react to them.

Succeeding in design practice is now more arduous than ever, typically requiring significant amounts of start-up capital for technology and navigating through significantly more complex business regulations than in the past. The various types of capital will be examined; human, equity and knowledge.

Will emerging architects be able to transform architectural practice by entrepreneurial methods in order to create new business processes for design and construction in the 21<sup>st</sup> century? Is there a new business model for design practice emerging that focuses upon the value provided by architects? And how should it be monetized to proactively expand opportunities that will allow future practitioners to flourish.



## **I. Welcome!**

The practice of architecture is in a constant state of flux, calling for increased analysis and new ways of thinking. This course seeks to add to the discourse regarding our profession evolves and remains relevant, seeking its place in the evolutionary global economic market of design services.

## **II. Course Objectives**

This course will provide understanding and assist the student with developing unique skills to make informed decisions in their future chosen professional path. Upon completion of this course, students will know and understand the following:

- Shape an understanding that design thinking and architectural education have intrinsic value beyond the boundaries of traditional architectural practice
- Develop an entrepreneurial awareness in students there are multiple practice models emerging and new markets that may provide increased opportunities for creative design practices outside of the mainstream
- Create a recognition that the disparate needs of the underserved may offer opportunities for unconventional practice models that fulfill a yet unmet need for architecture, planning and urban design services
- Expand the perception that there are in fact global opportunities for future architectural practice through digital communication and collaborative processes
- Acquaint students with the potential risks and pitfalls possible when starting an architectural practice utilizing new processes, technologies, materials and methods that need to be seriously considered in order to be sustainable over time
- Raise awareness of the need to keep abreast of global and local trends that could affect the practice of architecture and may possibly offer new opportunities

## **III. Required Texts and Readings**

- Practice: Architecture, Technique + Representation, Stan Allen (Routledge 2000) ISBN10: 0-415-77624—4 (HBK)
- How Firms Succeed, Cramer, James P., and Simpson, Scott. (Greenway Comm. 2004), ISBN, 0-9675477-8-4
- Readings on Canvas – See Course Schedule

## **IV. Class Schedule - Professional Practice Typical Weekly**

- 6:00 – 6:50pm: Class Exercise/Quiz/Review of Writing Assignment
- 6:50 – 7:00pm: Break
- 7:00 - 7:30pm: Instructor Lecture
- 7:30 – 7:40pm: Break
- 7:40 – 8:40pm: Group Discussion; Questions and Answer

## **V. Guest Lecturer Series**

- As part of the grading for this course you are required to attend all of the guest lectures that occur on Monday evenings. You will also be required to ask one question of a guest lecturer during the course of the semester. You have been assigned the lecturer to whom you will be asking the question; look for your name in the syllabus.
- This question is worth one quarter of your participation grade, or 2.5 % of the total semester grade; with attendance at all four guest lectures is also worth half of your participation grade or 2.5%. To receive credit for attendance you must sign the attendance sheet; NO exceptions other than a doctor's note.
- The question is due one week prior to the lecture for review and comment. See syllabus course schedule for your particular week.

- Questions must show thought and intellectual rigor with regard to the lecturer and her/his respective topic. Questions which demonstrate little intellectual thought, such as 'Who was your favorite architect?' Will receive zero credit.

## VI. Course Evaluation

Grades will be based upon the following:

- **Class participation** – this includes attendance, timely arrival, attentiveness, taking notes, active participation discussions during 'B' portion of class
  - **Assignments** of incremental progress over the duration of the term through quizzes & completed assignments
  - **Mid-term exam** - students must attend on the assigned date at the designated time
  - **Final Exam** - Students must attend on the assigned date at the designated time
- 100 total points possible + additional point opportunities**

Assessment	Percent of Final Grade
Class Participation – Guest Lecture Questions	10%
Writing Assignments & Other Assignments	30%
Quizzes	30%
Final Examination	30%
Total Grade	100%

## VII. Credit Hour Policy

Outside of class time, it is expected that, on average, each student will work a minimum of 6 hours per week on readings, homework assignments, research papers, interactive tutorials, study groups or projects. The number of work hours is related to the number of credit hours in your course; 3 credit (contact) hours per week equals 6 hours of outside work weekly

## VIII. Grading Scale

Grading scale:

Grading Scale (%)		
90 – 93 = A-	94 – 96 = A	97 – 100 = A+
80 – 83 = B-	84 – 86 = B	87 – 89 = B+
70 – 73 = C-	74 – 76 = C	77 – 79 = C+
60 – 69 = D-	64 – 66 = D	67 – 69 = D+
59 and below = F		

### Grade Dissemination

Graded materials in this course will be returned to each individual within the context of the course. You can access your scores at any time using the Grade function of Canvas. Please note that scores returned mid-semester are unofficial grades.

## IX. Course Policy on Late Work/Make Ups & Incomplete

### Late Work Policy:

Assignments and essays turned in late will be assessed a penalty: a half-letter grade if it is one day late, or a full-letter grade for 2-7 days late. Essays will not be accepted if overdue by more than seven days.

### Grades of "Incomplete":

The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent

a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

**Essay Commentary Policy:** Commentary on essays will be delivered in written format, at the end of the essay. However, upon request, an alternate delivery method can be used. If desired, instructor comments will be made verbally and delivered to the student as an mp3 through Canvas. This approach yields far fewer written comments, but much more commentary in general is delivered, due to the speed and specificity of speech. Those requesting mp3 feedback must state so when the essay is turned in.

## **X. Classroom Etiquette Policy**

**Canvas:** Canvas, will be used in the course, students should expect to login weekly and within 24 hours prior to the scheduled class time, reading will be available and assignments will be submitted using this media.

**Laptop Usage:** Laptops may be used to take notes during the course but must be silenced and cannot create noise. Not adhering to this policy will result in denial of use of your laptop throughout the remainder of the lecture. A third noise infraction during the semester will result in a ban on use of a laptop for that particular student for remainder of the semester.

**Phone Usage:** Use of cellular phones for any reason during class is strictly prohibited unless it is necessary to resolve some type of physical disability. NO texting or surfing the Internet is allowed during class time. Students are prohibited from taking photos/video/audio during class. This includes photos of blackboards/whiteboard at the end of the class.

**Disability Statement:** In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodation due to a disability to properly execute coursework must register with Student Accessibility Services (SAS)—in Boca Raton, SU 133 (561-297-3880); in Davie, LA 203 (954-236-1222); or in Jupiter, SR 110 (561-799-8585)—and follow all SAS procedures. For more info: <http://www.fau.edu/sas/>

**Code of Academic Integrity Policy:** Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see the Code of Academic Integrity in the University Regulations at : [http://www.fau.edu/regulations/chapter4/4.001\\_Code\\_of\\_Academic\\_Integrity.pdf](http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf).

## **XI. Attendance Policy**

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal

obligations or University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence. Students are expected to notify their instructor in advance if they intend to miss class to observe a holy day of their religious faith.

## **XII. Counseling and Psychological Services (CAPS) Center:**

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

## **XIII. Disability Statement:**

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at [www.fau.edu/sas/](http://www.fau.edu/sas/).

## **XIV. Professionalism Policy**

Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, etc., and have been warned may suffer a reduction in their final class grade.

## **XV. Code Academic Integrity Policy**

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see the Code of Academic Integrity in the University Regulations at [http://www.fau.edu/regulations/chapter4/4.001\\_Code\\_of\\_Academic\\_Integrity.pdf](http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf).

## **XVI. End of Semester Student Evaluations:**

All classes at FAU make use of an online system for students to provide feedback to the University regarding the course. These surveys will be made available at the end of the semester, and the University will notify you by email when the response window opens. Your participation is highly encouraged and valued. Results of student feedback are sent to departments and faculty members only after semester grades are already submitted, and student responses are reported only anonymously and in the aggregate to faculty.

## Course Schedule

**NOTE: This schedule is subject to revision during the semester at the discretion of the instructor.**

Week/Date	Tuesday	Readings/Assignments	Other Days
1  1/08	<b>Course Introduction &amp; Overview</b> <b>Module 1: Practice vs. Project</b> <b>Practice is not a Static Construct</b> ▪ Class Discussion – Reading 1	<b>Reading 1:</b> -Contingencies, Stan Allen  <b>Writing Assignment 1</b>	Friday 1/11 Last Day to Drop/Add
2  1/15	<b>Material Practices &amp; Techniques</b> ▪ Class Discussion – Reading 2	<b>Writing Assignment 1 Due</b> <b>Reading 2:</b> ▪ Material Practices: An 'Erotics of Doubt' ▪ Techniques: Differences That Make a Difference, Stan Allen <b>Writing Assignment 2</b>	Friday 1/18 Last Day to Withdrawal without a "W"
3  1/22	<b>Trajectories</b> ▪ Class Discussion – Reading 3	<b>Writing Assignment 2 Due</b> <b>Reading 3:</b> ▪ Trajectories, Stan Allen  <b>Writing Assignment 3</b>	Monday 1/21 MLK Holiday
4  1/29	<b>Module 2: Creative &amp; Collaborative Methods</b>  <b>Entrepreneurship &amp; Branding (Supply Side Focused)</b>	<b>Writing Assignment 3 Due</b> <b>Quiz 1</b> <b>Reading:</b> ▪ IX FROM OBJECT TO FIELD: Field Conditions in Architecture + Urbanism Stan Allen <b>Writing Assignment 4</b>	1/28 – LECTURE SERIES Ana Miljacki
5  2/05	<b>The Strong Idea: Relationship Building, Being Thought of First</b>		
6  2/12	<b>Specifying Construction Technique</b>	<b>Writing Assignment 4 Due</b>	
7  2/19	<b>Module 3: Craft - Achieving Your Design Intent In the Built Result</b>  <b>Scope of Work &amp; 'Meeting of the Minds'</b>	<b>Quiz 2</b> <b>Reading 4:</b> ▪ V THE GUGGENHEIM REFIGURED: The Solomon R. Guggenheim Museum New York, New York, Stan Allen <b>Writing Assignment 5</b>	2/18 – LECTURE SERIES Branko Kolarevic & Vera Parlac  Midterm grades sent out by Friday 2/22
8  2/26	<b>Materiality - The Art &amp; Science of Outline Specifications</b>		
9  3/05	<b>Spring Break</b> No class meeting	<b>Spring Break</b> No class meeting	<b>SPRING BREAK - No Classes</b>
10  3/12	<b>Instruments of Service – Design Development Drawings &amp; Material Performance</b>	<b>Writing Assignment 5 Due</b>	3/11 – LECTURE SERIES Rafi Segal <b>SITE VISIT – 3/15</b>
11  3/19	<b>Cost Allocation &amp; Income Tax Considerations</b>	<b>Graphic Assignment</b>	
12  3/26	<b>Module 4: Value through Craft</b>  <b>The Art of Technique</b>	<b>Reading 5:</b> ▪ EXCELLENT PRACTICE: The Origins of Good Building, Dana Cuff <b>Writing Assignment 6</b>	3/25 – LECTURE SERIES Brian Goldstein
13  4/02	<b>Instruments of Service - Construction Drawings &amp; Technical Specifications</b>	<b>Graphic Assignment Due</b>	Friday 4/5 Last Day to Withdrawal with a "W"
14  4/09	<b>Project Economic Analysis &amp; Life Cycle Costing</b>	<b>Writing Assignment 6 Due</b>	4/8 – LECTURE SERIES Nader Tehrani  <b>SITE VISIT 4/12</b>
15  4/16	<b>Finishing Strong: Substantial &amp; Final Completion to ensure Client Value</b>	<b>Quiz 4</b> <b>Final Exam Review</b>	
16  4/23	<b>Reading Day</b>	<b>April 23-24 Reading Days</b>	<b>FINAL REVIEW D10</b> <b>MONDAY APRIL 22</b>
17  4/30	<b>Final Examination 7:00 - 9:30pm</b>		<b>GRADUATION EXHIBIT</b> <b>5/01 6pm</b>



## **2016 NAAB EDUCATIONAL REALMS & STUDENT PERFORMANCE CRITERIA**

**This course addresses the following Student Performance Criteria identified by the 2015 NAAB Procedures for Accreditation:**

### **Primary:**

**B.10 Financial Considerations**

D.2 Project Management

D.3 Business Practices

D.4 Legal Responsibilities

D.5 Professional Conduct

### **Secondary:**

D.1 Stakeholder Roles in Architecture

### **Realm B: Building Practices, Technical Skills, and Knowledge.**

B.10 Financial Considerations: Understanding of the fundamentals of building costs, which must include project financing methods and feasibility, construction cost estimating, construction scheduling, operational costs, and life-cycle costs.

### **Realm D: Professional Practice.**

D.1 Stakeholder Roles In Architecture: *Understanding* of the relationship between the client, contractor, architect and other key stakeholders such as user groups and the community, in the design of the built environment. Understanding the responsibilities of the architect to reconcile the needs of those stakeholders

D.2 Project Management: Understanding of the methods for selecting consultants and assembling teams; identifying work plans, project schedules, and time requirements; and recommending project delivery methods.

D.3 Business Practices: Understanding of the basic principles of a firm's business practices, including financial management and business planning, marketing, organization, and entrepreneurship.

D.4 Legal Responsibilities: Understanding of the architect's responsibility to the public and the client as determined by regulations and legal considerations involving the practice of architecture and professional service contracts.

D.5 Professional Conduct: Understanding of the ethical issues involved in the exercise of professional judgment in architectural design and practice and understanding the role of the NCARB Rules of Conduct and the AIA Code of Ethics in defining professional conduct.



# Designing for Non-Visual Sensory: Reimagining the Lighthouse of Broward Campus

Fall 2019 Syllabus

CRN17020 ARC5352 001 Comprehensive Design Project (6 Credits)

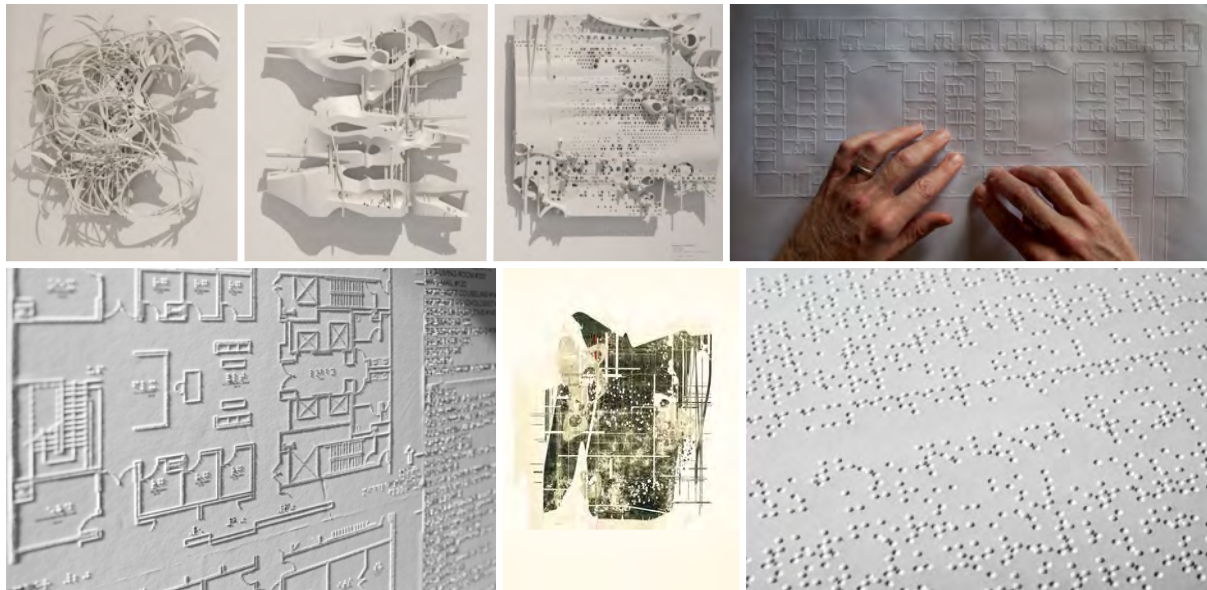
**Jeffrey Huber, AIA, Assoc. ASLA, NCARB, LEED ap**

Associate Professor + Director, MetroLAB Collaborative, School of Architecture

College for Design and Social Inquiry, Florida Atlantic University

HEC 810 | [huberj@fau.edu](mailto:huberj@fau.edu) | 904.540.9135

Office Hours: T/ TH 8:30 -10:30am or by appointment



## Course Meeting Time and Location:

Tuesdays and Thursdays, 12:30pm to 4:20pm - HEC 8<sup>th</sup> floor studio

## Course Description:

This capstone studio focuses on comprehensive design development for a complex building and site location. Projects will demonstrate competent design research, a balance of convention and invention, and a high level of effectiveness with regard to building technology, site development, graphic and linguistic modes of communicating a design solution. This course will meet for eight hours of studio per week.

**Students are also expected to work on their projects for a *minimum* of 24 hours outside of class time.**

## Academic Service-Learning:

The studio is designated as an Academic Service-Learning (AS-L) based course, which means the work you do for the school during your AS-L studio is a service to the public sector and it will allow you to apply knowledge from your BArch program to local, state, and national issues. Throughout the semester you will be participating in AS-L activities while demonstrating civic engagement. You will also reflect on your AS-L experience and the impact your work had on the public-sector organization and your own professional and personal development.

It is important to note that by enrolling in this AS-L studio you accept the risk associated with working in a public-sector project and agree to the following statement:

I understand that there are certain physical risks inherent in every form of service-learning activity. I understand the risks associated with this Academic Service-Learning course. I nonetheless agree to assume those risks so as to gain the benefits from participation in this valuable learning experience. I hereby release the State of Florida, the Board of Trustees, Florida Atlantic University and its agents and employees from any and all liability associated with my participation in the assignment at Florida Atlantic University.

#### *Course Requirements Regarding Academic Service-Learning Activities*

At the end of the semester you will be required to include a report that summarizes the total number of studio hours completed so the academic service-learning notation of hours can be posted to your transcript. This will be due the last day of class. At the end of the studio you also need to complete the Academic Service-Learning Student Survey. Please go to the Wepper Center for LEAD & Service-Learning website, [www.fau.edu/leadandserve](http://www.fau.edu/leadandserve) for the survey link.

#### **General Development Framework and Studio Project:**

For this semester, graduate level design studios will prepare a visioning plan for the *Lighthouse of Broward Campus (LHOB)* situated in the Flagler Village Neighborhood of downtown Fort Lauderdale. Our architectural and urban design challenge accommodates primary users that experience the built environment through senses which are primarily non-visual. Architects, like other designers, think and work in a visual way, as exemplified by our frequent use of visual means to express design (e.g., drawings and models) and our ability to describe in detail how artifacts and spaces look. Visual dominance is striking and disguises the importance of other senses. Visually impaired people must rely on other senses than sight, privileging haptics and sound. To understand this user group, as best we can, it is necessary to immerse ourselves in investigation and documentation of other ways to perceive and represent architectural design. In this way, we are attempting to place ourselves into the experiential world of our primary user group. A group of people with unique ways to perceive their immediate surroundings with which we are unfamiliar.

Furthermore, research has shown how architecture students over the years of their studies become assimilated into the social mores of the profession: they become increasingly remote from the way laypeople describe architecture, and gradually take on architects' language codes. Gradually, architects become accustomed to using words and phrases that represent actual and absent visual concepts or materials. Hence, architects can become biased and exclusive of others with visual impairments simply from the way we represent design and the way in which we speak about it. So, it is safe to say, we start this design endeavor as novices and only somewhat qualified to be a design advocate on our clients' behalf. We must further educate and qualify ourselves to be able to reasonably create environments that function and resonate with this group of users.

The *Lighthouse of Broward* is the pre-eminent resource for the visually impaired community in Broward County. Their mission is to provide specialized rehabilitation, life skills training, and employment opportunities that enhance the independence, productivity, and dignity of children and adults who are blind or visually impaired. Formed in 1973, LHOB was created to provide social support and recreational activities, and has grown into a full service educational and rehabilitation agency. An estimated 125,000 severely visually impaired people live in Broward County, one of the highest incidences of visual impairment in the nation—primarily because the community is an attractive retirement destination, but age groups vary. What also varies is low vision or no vision onset which can occur at birth, through aging, disease, or from injury/trauma.

This project will consist of 2 parts:

- (1) A *Neighborhood Urban Design Framework* that considers: community connections within Flagler Village and the broader Fort Lauderdale context, and consistency with the existing City master plan and development plans for the neighborhood and project site.
- (2) *Lighthouse of Broward Redevelopment* visioning study for the roughly 1.2-acre site.

The objective of the *Urban Design Framework* exercise is to evaluate the current LHOB site and properties in the immediate vicinity in order to determine the best and highest uses for the site that, together with potential new mixed use and public space improvements shall support a more walkable and pedestrian, bicycle and alternative-transportation friendly environment—consistent with City plans and policies for redevelopment in the

Neighborhood, with a focus on design strategies for the visually impaired. Design strategies will include urban design concepts and components to support place-making, facilitate organization identification and way-finding, as well as enhance and foster the mission of LHOB through physical improvements proposed within the community. The design strategies should also incorporate considerations for Virgin Trains USA (formerly Brightline), Mockingbird Trail, and multiple arts and entertainment venues in Flagler Uptown, FAT Village, Mass District, etc.

The objective of the *LHOB Redevelopment* exercise is to explore the design opportunities for several alternative proposals that fulfill requirements for future LHOB facilities and needs while considering the *Neighborhood Urban Design Framework* proposals. Design strategies will investigate:

- (1) site design at both urban and building scales
- (2) considerations of the end users and how that affects design thinking for the visually impaired
- (3) the public function and character of the building
- (4) opportunities for the incorporation of mixed-use development
- (5) current and future parking needs for the site and the community; and
- (6) the current zoning regulations and feasibility

#### **General Method:**

Students will work collaboratively in teams of two to establish a *Neighborhood and Redevelopment Framework* for the site and immediately adjacent context for the new LHOB Campus, including criteria for building design and site improvements.

While students shall be encouraged to explore alternate and innovative design strategies (at both the urban and building scales), at a minimum, the design proposals must consider the following:

- Lighthouse of Broward's reasonable ability to fund site improvements
- Appropriateness of design as it relates to end-user needs and requirements
- All applicable zoning/development and building codes
- The reasonable practicality of the proposals for Lighthouse of Broward and its project partners/stakeholders

#### **Deliverables:**

Students in this design studio will:

- Research and analyze the existing conditions of the project site and context, including all applicable zoning and building codes
- Participate in a Design Workshop with the Lighthouse of Broward staff and stakeholders
- Develop a minimum of three *Neighborhood Urban Design Framework* strategies for the project site and immediate vicinity, preparing the following:
  - Drawings that shall include (a) site plan, (b) site sections, (c) street sections (d) perspective views demonstrating the primary design characteristics of the urban design proposals with considerations for visually impaired audiences (scales of drawings to be determined)
  - Physical model of the neighborhood urban design framework proposal with considerations for visually impaired audiences (Scale of model to be determined)
- Develop *Lighthouse of Broward Redevelopment* proposals and prepare the following:
  - drawings that clearly describe their design intentions that shall include (a) site plans; (b) building plans, sections and elevations; and (c) perspective views or other representations with considerations for visually impaired audiences (Scales of drawings to be determined)
- Work collaboratively to prepare a project summary describing the findings from the studio. The use of Braille in the final report and accommodation for visually impaired audiences in project presentations will be included as part of the learning objectives. The techniques and practices developed in collaboration with LHOB will be designed for integration into future curriculum at the school.
- Prepare two presentations of the findings from the studio for Lighthouse of Broward staff and key stakeholders

All material described above will be formatted to be easily transported and displayed. The FAU School of Architecture will organize one public exhibition of the work and one public presentation of the proposals at

MetroLAB or alternative location, to be scheduled at the discretion of LHOB. All materials, designs, publications, and ideas shall remain the intellectual property of the University.

### **Course Objectives, Learning Outcomes, and SPCs:**

This design studio focuses on the development of advanced architectural and urban design at multiple scales. The studio is situated in a real-world community design process whereby students engage with local communities to develop a vision for the built environment that supports a livable, sustainable and specifically subtropical urban future. While final products from collaborative efforts will be prepared among student teams, students will undertake individual research and design projects within project initiatives (you will be graded both individually and as a group).

The main studio objective is to position students for design leadership in the built environment through cultivation of capacities in design visioning, interdisciplinary and collaborative thinking, and communication of complex issues to general and non-professional design audiences. Four general learning objectives will structure the studio:

- Introduce students to pressing socio-environmental conditions for which design has a unique capacity to deliver integrated solutions. This initiates the question of creative practice and the role of “critical practitioner” or instrumental thinking for upper division students.
- Engage multiple decision-making domains through allied knowledge fields and multidisciplinary practices in the course of authoring design proposals.
- Introduce research and/or case study components in the design of context to enhance design intelligence and resourcefulness.
- Establish an outreach culture in which information, arguments, and design proposals are intelligently communicated so that they may be usefully engaged by lay audiences.
- Reflect on your service-learning experience, professional and personal development, and future career objectives.
- To make positive contributions to the provider/organization via high-quality work and educationally enriched skills.

This design studio will develop an integrative architectural design response considered/developed at multiple scales that meets the Student Performance Criteria. Excellence in design conceptualization, communication, process, product, and presentation are key expectations for this graduate-level design studio.

Upon completion of this course, a minimum passing grade indicates that the student has met the following criteria set forth by the faculty in accordance with the *National Architectural Accrediting Board (NAAB)* requirements and the FAU School of Architecture, as assigned to the curriculum by the faculty of the School of Architecture. A full description of the NAAB SPC criteria may be downloaded at the following website: [http://www.naab.org/accreditation/2014\\_Conditions](http://www.naab.org/accreditation/2014_Conditions). *By receipt of this syllabus the student acknowledges having read and understood the full published descriptions contained in the Criteria for each of the following..*

**Primary:** The following criteria are addressed according to the requirements of **Ability or Understanding** as articulated in the 2014 NAAB Conditions for accreditation.

**A1: Professional Communication Skills:** *Ability to write and speak effectively and use representational media appropriate for both within the profession and with the general public.*

**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.6: Use of Precedents:** *Ability to examine and comprehend the fundamental principles present in relevant precedents and to make informed choices about the incorporation of such principles into architecture and urban design projects.*

**A.8: Cultural Diversity and Social Equity:** *Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the responsibility of the architect to ensure equity of access to sites, buildings, and structures.*

**B.1: Pre-Design:** *Ability to prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including*

relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.

**B.2: Site Design:** *Ability to respond to site characteristics, including urban context and developmental patterning, historical fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design.*

**B.3: Codes and Regulations:** *Ability to design sites, facilities, and systems that are responsive to relevant codes and regulations, and include the principles of life-safety and accessibility standards.*

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

**B.8: Building Materials and Assemblies:** *Understanding of the basic principles used in the appropriate selection of interior and exterior construction materials, finishes, products, components, and assemblies based on their inherent performance, including environmental impact and reuse.*

**C.3: Integrative Design:** *Ability to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.*

**D.1: Stakeholder Roles in Architecture:** *Understanding of the relationships among key stakeholders in the design process—client, contractor, architect, user groups, local community—and the architect’s role to reconcile stakeholder needs.*

**Secondary:** The following criteria are engaged generally within this studio; however, they are not specifically addressed for accreditation purposes: **A4: Architectural Design Skills; A8: Cultural Diversity and Social Equity; B5: Structural Systems; B7: Building Envelope Systems and Assemblies; B9: Building Service Systems; C2: Integrated Evaluations and Decision-Making Design Process; D5: Professional Conduct; FA1: Subtropical Sustainability**

#### Course Prerequisites:

ARC 5328, with a minimum grade of “C” and ARC 5910 Students without the required prerequisites will be automatically dropped from this course.

#### Required Text:

The professor will provide handouts of any relevant readings regarding semester project.

#### Required Supplies:

All student must keep a sketchbook and have a 12” sketch trace roll and sketching pens/markers at all times.

#### Course Evaluation Method:

WEEK	ASSIGNMENTS	GRADE VALUE
1-2	Problemscaping Via New Realms of Experience and Representation	15%
3-4	Problem Setting: Concepts, Programming and Code Analysis	15%
5-6	Development of Design Approaches-Prototyping Design Development + Programming	10%
7-10	Project Development and Refinement	25%
11-15	Finalization of Architectural Proposals	25%
all	Sketchbook and Sketches Submission	10%

#### Course Deliverables:

As an Integrative Studio it is imperative that students achieve SPC and studio curriculum-related deliverables, the following is a list of key components of expected deliverables based on these criteria and related course evaluation methodology. Assignment briefs will be provided detailing the requirements of each assignment.



### *Week 1-2: Problemscaping Via New Realms of Experience and Representation*

In order to better understand our client user group, we will adopt an initial research approach which vacillates between haptic investigation and tactile (not visual) representation. In the first week we will begin to create a more robust design vocabulary by interrogating and testing basic program concepts. Our haptic research will initially explore non-visual architecture at room, suite, and floor scale. Our initial goal will be to aggressively explore, the room/suite/corridor/floor conditions of what a designer possess agency over to respond to non-visual sensations. Through these interrogations, we will learn, quantify and index tactile research. Perhaps some relevant questions might be:

- How is a rug texture like this kind of experience?
- If one is principally experiencing a space by sound, what impact does echo have?
- What tactile cues are appropriate in the spaces we create and what standards exist for these spatial cues?

Our haptic experiences will facilitate the development of a presentable “vocabulary” of spaces, and delivery of spatial cues, to be required in our building program.

During our second week, we will strive to define ‘visually impaired’ experiences to facilitate establishment of a shared design vocabulary for essential non-visual design understanding. We will begin to categorize program-required spaces with their associated architectural amenities necessary to create/enhance a non-visual experience of these spaces. We will reinforce this understanding through cross referencing with other spaces/programs outside of the assignment. Some relevant questions, in the context of a non-visually impaired experience, could be:

- What does a swimming pool deck feel like, versus a sidewalk?
- What if we, as designers, created offices that presented a non-visual experience, which felt like a pool deck? Or a market?
- Considering their differing experiences, how can we design excellent spaces to accommodate both the visually impaired and the fully sighted?
- What non-visual design methods have already been established that we must learn?
- What built environment standards have been established that we must learn, understand and employ?

### *Week 3-4: Problem Setting: Concepts, Programming and Code Analysis*

Working collaboratively students will develop a Design Criteria Package for their project. Working with stakeholders and instructors, students will review and develop a standardized program and research relevant codes, both building and zoning. These products will be packaged within a clear, well crafted, and graphic Design Criteria Package that will become the basis for project development.

### *Week 5-6: Development of Design Approaches—Prototyping*

Students will explore design ideas using clear and precise questions that utilize abstract ideas to interpret information, consider alternative views, and reach well-reasoned conclusions through testing and iteration of alternative outcomes based on relevant criteria and standards. A set of drawings and models that explains analysis of context and design assessment criteria. The design assessment criteria should employ considerations of context, siting, climate, solar orientation, and massing study. Students should explore their interests within design approaches; i.e. parametric, analog and other design techniques are encouraged as a method of exploration.

### *Week 7-10: Project Development and Refinement*

Students will develop their design approach and direction in a more technical and detailed manner. A set of drawings that explains analysis of context and design assessment criteria; building materials and assemblies; structural, mechanical, electrical, plumbing, life safety and accessibility elements using technical drawing skills will be developed and iterated. Students will establish all required drawings in the first week and develop them through their design process.

### *Week 11-15: Finalization of Architectural Proposals*

Students will finalize drawings and develop 3-Dimensional and physical models. The previous weeks were spent developing spatial and material assembly details that will now be developed within visualization tools

to showcase the projective lifestyles that emerge from the design. Emphasis will be placed on architectural renderings and physical modeling.

### **Grading Policy:**

The grading policy is established in accordance with Florida Atlantic University and the School of Architecture policies as outlined in the Florida Atlantic University Course Catalog. The following criterion supplements those policies and will be used to evaluate your work. Students will have an opportunity to comment on the quality, content, and volume of work of their fellow group members. These comments shall be considered when assigning a final grade for participation and engagement. **Though the grading values listed above will be used in evaluation of student performance, please keep in mind that each week is essentially worth 7.5% of your grade.** You will be graded often and in a timely manner so you are certain of your academic standing in studio. Also note, that failure to follow verbal and written directions will negatively affect your grade.

Project Documentation: A closeout procedure will be given upon completion of the final review and will be due by December, 10<sup>th</sup>, 2019. A final grade of F will be given for students not completing project documentation by the due date.

Studio spaces MUST be clean and all personal effects MUST be removed by 5pm December 8<sup>th</sup>. Any personal effects (including drawings / models) left in the studio after this date will be considered abandoned and will be discarded.

### **Grading Rubric:**

In specific terms, each percentage point is equal to one (1) point, with a total cumulative value of one hundred (100) possible points for the course.

**A: 94-100 pts; A-: 90-93 pts; B+:87-89 pts; B:84-86 pts; B-: 80-83 pts; C+: 77-79 pts; C: 74-76 pts; C-: 70-73 pts; D+:67-69pts; D:64-66 pts; D-: 60-63 pts; F: Below 60pts.**

In general terms, letter grades above indicate that students have achieved the following:

#### **A to A-      Excellent Work**

Work of exceptional quality typically achieved through purposive self-direction, rigor, and expansive design investigations of the studio objectives. This work demonstrates a very high level of intellectual and material craftsmanship with results that are beyond the expectations established for a student at this level of study.

#### **B+ to B-      Good Work**

Work of a high quality that exhibits insight, development, and academic performance above an average level. Work at this level exhibits a certain level of self-direction and discovery beyond a mere understanding of course content and objectives. Work is independently directed and demonstrates a high level of intellectual and physical craftsmanship.

#### **C+ to C      Average Work**

Average work satisfies the objectives of the course, demonstrating an understanding of course content, and competence in concept production, design development, and craftsmanship in final work products. This work is typical and exhibits modest or normative intellectual and design ambition.

#### **C- to D-      Marginal Work**

Marginal work is failing work, characterized by indifference and a marginal understanding of course content. This work is incomplete, manifesting little initiative, and lacking design development and integration of key concepts in the final work products. Students who earn a grade lower than a C typically do not read assigned literature, investigate relevant precedents, attend class, or maintain consistent progress in work production.

#### **F      Failing Work**

Failing work is unacceptable and without substantive consideration of course content and/or satisfactory design development in work products. This work typically lacks synthesis of content,

detail, specific course objectives, and/or is substantially incomplete. The work betrays incompetence and the inability to perform in a satisfactory manner at this level of study.

#### **I Incomplete Work**

Work that is Incomplete for a minor part of the course requirements due to an illness or other excused absence. An Incomplete is not intended to be an extension of the semester due to marginal performance. A passing grade is expected once the work is completed. An "I" is merely provisional and rolls over to an F in the following semester.

A grade of F for the final submission at the time of the jury constitutes automatic failure of the course. All students are required to submit a record that documents studio work throughout the semester. This will be accomplished through a shared FTP folder, such as Google Drive. Failure to submit proper documentation by the semester deadline that meets required specifications constitutes F for the semester.

#### **Course Attendance; Make Up and Incomplete/Late Work Policy:**

***Students with an unexcused absence will receive a 3-point reduction to the final calculated grade for each class missed, and may subsequently fail the course. Excessive tardiness will not be tolerated and two late arrivals to class will be considered equal to one absence. The instructor will have a sign-in sheet available at the beginning of each class which will serve as the method of attendance keeping.*** Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students shall conduct themselves in a diligent and scholarly manner. Students are expected to arrive to class on time, prepared, and having completed all assignments. During individual and group desk critiques, all students are expected to work productively at their individual drafting tables. ***Students are also required to remain in class for the duration of class, unless excused by the instructor.*** Anyone leaving early without permission will be marked with an unexcused absence for that day. Students absent ***more than six classes*** without serious reasons (medical or otherwise) given in writing in advance of the class will ***automatically fail*** the class. Students absent from a required presentation, assignment, or examination will receive, without exception, an "F" for that presentation, assignment, or examination. Attendance will be taken at the beginning of each class.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

***No late work will be accepted*** unless written authorization is provided to the student from the professor prior to the due date. Students must submit all assignments and coursework on the specified due date. After the due date the grade submission will be a "0" with no exceptions. Please note that students participating in University-approved activities (such as athletic events, theatrical or musical performances, etc.) will not be penalized, however prior written notification is to be given to the professor by faculty or staff responsible before due date.

#### **Professional Communication:**

Just as clear and concise drawing is essential to the effective communication of architectural ideas so too is the clear and concise use of language, both spoken and written. The School of Architecture expects students to communicate their ideas effectively and in a professional manner. This includes correct spelling, proper punctuation and grammar, and referential citations that meet the Modern Language Association (MLA) standards for research and scholarly writing. All course work will be graded with consideration of these issues.

#### **Conduct & Studio Environment:**

Students are expected to conduct themselves in a collegial and professional manner. This includes respecting the opinions of others, being attentive during lectures, and reviews, and participating fully in all discussions. During



individual and group critiques students are expected to work productively at their drafting tables. Electronic communications with persons outside of the classroom or studio (telephone, texting, social media, etc) is prohibited. In case of extenuating circumstances, students must make prior arrangements with faculty. Each disruptive use of electronic communication shall result in a deduction of 2 points from the student's final cumulative point total.

**It is the students' responsibility to maintain a professional, clean and safe working environment in the studios at all times. At the end of the semester, the studio should be returned to state in which it was received at the beginning of the semester. The studio clean-up is the collective responsibility of the studio, and the individual responsibility of the student. All garbage, debris, drawing material, model making material and personal effects must be removed or placed in trash bins, and all floors and desk surfaces must be clean, with your assigned stool placed on top of your desk. Any student leaving material in the studio after the December 8<sup>th</sup>, 2019 clean out date will receive a penalty of 10pts from their final grade. If debris is left on the floors of your studio space, all students in this studio will receive a penalty of 5pts from their final grade.**

#### **Counseling and Psychological Services (CAPS) Center:**

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provide FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>.

#### **Disability Statement:**

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at [www.fau.edu/sas/](http://www.fau.edu/sas/).

#### **Code of Academic Integrity Policy:**

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high-quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see the Code of Academic Integrity in the University Regulations at [http://www.fau.edu/regulations/chapter4/4.001\\_Code\\_of\\_Academic\\_Integrity.pdf](http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf).

#### **Credit Hour Policy:**

Outside of class time, it is expected that, on average, each student will work a minimum of **24 hours per week** on readings, assignments, or projects.

#### **Outside Employment:**

While the School of Architecture is sensitive to the financial and professional needs of our students, ***outside employment is not considered an extenuating circumstance in cases of poor performance, excessive absences or failure to submit assigned work on schedule.*** Students who fail to adequately fulfill course and curriculum requirements while maintaining outside employment may be required to carry reduced course loads. A longer period in residence may result from this reduction in course load.

#### **Student Work:**

The School of Architecture reserves the right to retain any and all student work for the purpose of record, exhibition, and instruction. All students are encouraged to reproduce all work for their own records prior to submission of originals to the instructor. In the event of publication, the author or the work will be recognized and receive full attribution.

#### **General:**

Information concerning academic regulations, student rights and responsibilities may be found in the current Florida Atlantic University Catalog and Student Handbook. Students are also encouraged to review the School of Architecture Student Handbook, available online at the school's website. ***Personal communication devices such as pagers, beepers, and cellular telephones are to be disabled in class sessions.*** Students found to be using such devices during class will be asked to leave, and will be marked absent for that day.

## STUDIO SCHEDULE

Week/ Date	Tuesday	Thursday	Other Days
<b>1</b> 8/20 8/22	Introduction / Syllabus Project Introduction / <b>Assignment 1</b>	Problemscaping: Pin-Up Graphic Documentation and Analysis	Friday 8/23 Last Day to Drop/Add
<b>2</b> 8/27 8/29	Problemscaping: Pin-up Haptic Exploration	Problemscaping:	Friday 8/30 Last Day to Withdrawal without a "W"
<b>3</b> 9/3 9/5	<b>Assignment 1 DUE</b> Meet with Client Visit Site Problem Setting: Programming and Code Analysis Crits and Review	Assign Project 3	Monday 9/2 Labor Day Holiday
<b>4</b> 9/10 9/12	Thesis Creation: A Written & Visual Intent	<b>Assignment 2 DUE</b> <b>REDLINE REVIEW</b> Assignment 3	
<b>5</b> 9/17 9/19	<b>Development of Design Approach</b>	Prototyping: Iteration of Design Approaches	
<b>6</b> 9/24 9/26	Design Approach Selection & Refinement - Individual Crits	<b>MIDTERM REVIEW: Assignment 3</b> <b>DUE</b> Midterm grading and all studio design review	
<b>7</b> 10/1 10/3	Design Development	Design Development	Midterm grades sent out by Friday 10/5
<b>8</b> 10/8 10/10	Design Development Crits	Site Model DUE / Design Development <b>REDLINE REVIEW</b>	
<b>9</b> 10/15 10/17	Design Development Crits (Individual)	Design Development Crits (Individual)	
<b>10</b> 10/22 10/24	Design Development Crits (Individual)	<b>Assignment 4 DUE</b> <b>Design Development Presentation</b> <b>Pre-Final Review</b>	
<b>11</b> 10/29 10/31	Design Refinement Crits (Individual)	<b>REDLINE REVIEW</b> (Group)	
<b>12</b> 11/5 11/7	Design Refinement Crits (Individual)	Design Refinement Crits (Group)	
<b>13</b> 11/12 11/14	Design Refinement Crits (Individual)	Design Refinement Crits (Group)	Friday 10/25 Last Day to Withdrawal with a "W"
<b>14</b> 11/19 11/21	Design Refinement Crits (Individual)	<b>REDLINE REVIEW</b> (Group)	
<b>15</b> 11/26 11/28	Mock Review (Group)	<b>FINAL REVIEW WED 11/27</b>	
<b>16</b> 12/3 12/5	<b>Reading Day</b>	<b>Presentation and Exhibition for LHOB</b>	
<b>17</b> 12/10 12/12	<b>All Work DUE for Grading</b>	<b>Presentation and Exhibition for LHOB</b>	Grades Due 12/16

NOTE: This schedule is subject to revision during the semester at the discretion of the instructor.