Final Studio ARCH 6971
University of Utah, School of Architecture
Faculty: Professor Anne G. Mooney and Professor Keith Diaz Moore
5 Credit Hours

Course Description:
This is a capstone studio experience that requires a systematic and rigorous exploration of a self-directed architectural project. These projects will be based upon and grounded in the prep course (ARCH 6817) completed in the Summer or Fall semester and will include research, analysis, programmatic and field evaluation, and city and site research and analysis. This preparation course has allowed each student to develop a project narrative, select a site, conduct a precedent study and to formulate a question and programmatic concept. The spring semester will finalize this investigation to include detailed programming, systematic precedence analysis, concept and parti, schematic and design development, detail investigation and culminating in the verbal, written, and graphic presentation of a cohesive architectural design proposal.

The final design studio is intended to transform physical, ecological, social and cultural context and bring architectural meaning to a topic with meaning that didn’t otherwise exist. Through analog and digital explorations across multiple scales, students will develop a building spatial and organizational configuration demonstrating a thorough understanding of the building type and anticipating its evolutionary trajectory. The goal is to create new knowledge or novel reinterpretations of existing approaches to architecture rather than repeating existing formulas. The students will take their idealized institutional programs and adapt them to the chosen urban and site conditions, situating them in time and place.

The range and scale of investigations will give student an understanding of both the urban and ecological systems relationships of each project, as well as the experiential quality of architecture. Through research and personal experience, a compelling set of ideas will emerge to counter preconceptions. In a design problem there are multiple valid solutions to a given problem each endeavors to find harmony among disparate and often-conflicting criteria. For a successful project, students must be open to the give and take of competing and equally valid ideas, and test alternatives solutions until optimal and defensible ideas emerge. Initial concepts will more often than not prove to be replete with contradictions and inconsistencies that suggest abandoning the idea. Design benefits to the community will be articulated from an unrelenting testing of options, a search for singular elegant solutions to solve multiple issues.

Problem Definition:
During the fall semester, students developed individual design protocols including place, program, benchmarking and prototypical precedents. The assignment includes the project book with research, narrative and graphics to articulate the broad constraints and opportunities that will influence the development in the selected site. The statement should theorize an individual design approach and defines the students’ own metrics for success. These metrics must also coincide with the rubrics for the course but each student is charged to be self-critical by defining their own measurement for success.

City/ Site Analysis:
Students have looked at the broader conditions affecting the project and begun a city & site analysis. This may include economic, ecological, historical, climate, cultural and geotechnical conditions. Then on a more detailed level, students
are to evaluate particulars of their chosen site that are to include pathways, vistas, hierarchies between public and private zones, cultural context and distinctions, patterns of use, massing, character, environmental imperatives including migratory patterns, day lighting, wind patterns and water quality.

**Materiality:**
Through explorations of building techniques and materials, students are to ground their work in an understanding of local and passive systems and methodologies. In a complimentary fashion, students are to investigate new technologies suggesting new and innovative solutions, and seeking methods for reconciling the two perspectives. This is an open-ended process of thinking through making and learning by construing alternate solutions. Don’t underestimate the imbedded knowledge in how we build. This studio is about making and meaning as one is inflected in the other.

**Studio Philosophy:**
An important goal for the studio is to generate an enthusiasm for architectural design as a responsible yet creative act. To do this, you must be willing to suspend preconceived beliefs and solutions and that process is necessarily an end-in-itself. Students should be willing to propose a variety of architectural concepts and to explore and examine them as part of a search for solutions; exercise the full range of graphic and verbal communication skills available to you and demonstrate their appropriate use as applied to various points in the design process; demonstrate personal initiative as well as the management of the work in anticipation of milestone dates and deliverables; and cultivate a critical dialogue and insight about your work through seeking and offering positive engagement with other students, faculty and guest critics within a healthy, supportive studio environment.

To be creative and successful in the design process, a consistent, disciplined exploration and testing of ideas is required. Often, architecture is an ineffable, intellectual and intuitive process as much as a reasoned one. It can’t be fully explained. Invariably the perception of a situation is based on personal experience, background and preconditioning and this will be reflected in the work. Architecture also requires one to listen to the users, culture and the environment and then through a personal and collective investigation allow new opportunities to emerge. Success has a direct correlation to hard work. Be suspicious of short cuts and quick solutions to complex problems. Be willing to take risks.

The semester’s work is based upon the assumption of a reciprocal relationship from the particular to the universal and universal to particular. Thus, students will be working in variations of scale and perspectives throughout the semester. One should not assume that a successful project could be achieved in a simple linear fashion or prescriptive method following a path from macro to micro scale or vise versa. The aspects of designing are cumulative and unpredictable resulting in multiple equally viable solutions to be tested.

**Juries:**
Juries will be a forum for students to exercise communication skills, 2D and 3D and both illustrative and verbal. Students should understand that design is very much a public process that benefits from the testing and challenging of assumptions that comes from external critique. Juries are intended not to diminish options but to suggest possibilities. They should be viewed as though architecture is a problem subject to analysis, exposing inconsistencies not merely a forum for personal expression, thus students should be open to and engaged in the experience. Juries are one mechanism by which the profession recalibrates itself and evolves. Students and jurors alike should be willing to explain their opinions avoiding merely personal likes and dislikes. Overly defensive reactions are not conducive to fostering the kind of discussion that we hope to encourage.

**Interim Review:**
An interim presentation to a committee is required approximately three weeks before the final presentation of your work. Interim scheduling information will be emailed to you one week prior to interims. During interims, your committee will suggest final modifications and will either approve the work for final presentation or require additional work and presentation at the end of the following semester (completion of Final Studio is offered in Summer or Spring semester only).
### Grading:

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<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Class Participation/ Attendance</td>
<td>10%</td>
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<tr>
<td>Conceptual Design</td>
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<tr>
<td>Schematic Design</td>
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<tr>
<td>Design Development / Detail Phase</td>
<td>30%</td>
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<tr>
<td>Final Presentation</td>
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<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>100%</strong></td>
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Marginal Work [E, D, C-, C, C+]: Exhibiting difficulty in demonstrating a recognition and understanding of the issues and concepts presented in the assignments and required deliverables.

Competent and Satisfactory Work [B-]: Addressing all of the deliverables, rubrics, SPC’s as presented in the assignment and demonstrating an understanding of these issues at a comprehensive graduate level of understanding.

Notable Work [B, B+]: Addressing and expanding upon the issues presented in the assignments and weekly deliverables, course rubrics, and demonstrating not only understanding but also achievement in directing the investigations and development in well-developed and comprehensive design work at the graduate level in architecture.

Extraordinary Work [A-, A]: Addressing and expanding upon the issues presented in each of the assignments and weekly deliverables, course rubrics and discovering/proposing issues which are reciprocal, similar, and coincidental to the assignments, demonstrating the ability to achieve and excel independently in the development of seminal work in architecture.

### Email and Canvas Communication:

Studio information and updates will frequently and as a matter of course be conveyed through student group emails and on Canvas. Content and schedule are subject to change given the nature of the design process, student progress and the availability of guest studio critics and jurors. Canvas and email will be used to share information about newsworthy events and articles, provide all of the course readings, facilitate discussions outside of class, and give access to grades where applicable. Students have “constructive notice” of any information posted on the course Canvas site during the semester. That means your instructors will assume you have received information emailed and posted on the site, and that you take responsibility for the consequences if you choose to not check these platforms regularly.

### Final Report:

Each student is required to submit comprehensive documentation of studio work digitally (one electronic final submission through Canvas and one analog booklet are required). Report requirements will be due after the final jury, see the syllabus for ARCH 6819 which should be taken concurrently with this class. Final report documents will not be returned. You should document all phases of your projects not just final presentations including the work product from the Fall prep course. Choose the best representative artifacts from each phase. Please do this throughout the semester and not wait to the end. The report shall include photographic images of all analog models.

Attendance in studio during the assigned class time frame doing course related work is mandatory and a portion of the grade will be based upon attendance and participation in class. Students are encouraged to collaborate, share ideas and perspectives. Students are also encouraged to take risks yet appreciate that constraints in themselves can be liberating and are part and parcel to the discipline of architecture. We navigate within boundaries. Students will have up to one
unexcused absence during the semester. Such an absence will inform the class participation/attendance grade assigned in the class. For each additional unexcused absence, the final grade in the class will be lowered one full letter grade. Being absent for a presentation, jury, final review or failure in handing in the required material in readable digital format will result in a failing grade for the work assignment that may lead to an incomplete grade for the course. Please note that a grade of B- or greater is required to pass this course. Passing this course is required for graduation and the granting of a Masters Degree. Absence from class due to conflicts with work does not constitute an excused absence. Work on projects other than the studio course work during studio time is the same as absence from class.

The instructor frequently gives studio instructions at the beginning of studio so punctuality is important. If students arrive late to class they will be responsible for getting instructions that they miss from other students. If something comes up which necessitates your absence from studio (illness or serious personal issues), it is your responsibility to contact your instructor. Regular communication will be conducted through email and Canvas. Professors Diaz Moore and Mooney can be contacted directly at diazmoore@utah.edu and mooney@arch.utah.edu. In the event that a student misses a class, the student is responsible for all material covered. No late work will be accepted.

**Attendance:** The University expects regular attendance at all class meetings. See Course Schedule. Students are responsible for acquainting themselves with and satisfying the entire range of academic objectives and requirements as defined by the instructor (PPM, Policy 6-100III-0).

**Studio Culture:** Part of the college’s ethic of care is establishing expectations for how we treat each other in a studio environment. The college’s Studio Culture Policy (http://www.cap.utah.edu/wp-content/uploads/2018/11/3-04_Studio-Culture.pdf) sets forth these expectations, and as a member of our college community, we expect you to read and abide by the policy’s standards.

**Americans with Disabilities Act (ADA) Statement:** The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangement for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

**Campus Safety:** The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.

**Academic Misconduct:** Academic misconduct includes cheating, plagiarizing, research misconduct, misrepresenting one’s work, and inappropriately collaborating. Definitions of these and other terms can be found in the Student Code at http://www.regulations.utah.edu/academics/6-400.html. The Student Code (at section 6-400(V)) also specifies the required procedures that must be followed when disciplinary actions are taken in response to instances of academic misconduct. For students enrolled in degree programs in the College of Architecture + Planning, a second occurrence of academic misconduct will result in the student’s dismissal from their academic program.

**Academic Honesty:** According to U of U Codes of Student Conduct, any activity that tends to compromise the academic integrity of the University, or subvert the educational process is considered as academic misconduct. Examples of academic misconduct include, but are not limited to plagiarism and copying the work of another student. A proper reference style should be used when using works or ideas of other people.

**Addressing Sexual Misconduct:** Title IX of the federal Education Amendments of 1972 states, in part: “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal financial assistance.” Under this law, violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil
rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran’s status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 332 South 1400 East Room 112 (Bldg. 73), 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 328 Student Services Building (SSB), 801-581-7779. To report to the police, contact the Department of Public Safety, 801-585-2677 (COPS).

Disclaimers: All projects and other work developed as part of this Studio are acknowledged as public domain. All forms of documentation of work done as a part of the Studio fall under the College policy on student work. Professors the first day of class will require students to provide a release of their work to the professor to be used as a record of the class effort. Images of your work may be used in communications by your instructor, the School of Architecture and/or the College of Architecture + Planning.

Electronic Devices: Electronic devices of any kind including cell phones, i pads, etc. are NOT allowed to be used during studio or lectures unless previously approved by the instructor for reasons of a disability or otherwise determined appropriate by the SoA. Furthermore, audio & visual distractions such as movies, audible music, games, email, internet surfing, assignments from other courses etc. are expressly forbidden during studio sessions. Such activity will be equivalent to an unexcused absence in class.

Instructor’s Absence: Faculty members are involved in a variety of activities in addition to their teaching: research, scholarship, professional practice, university and professional service, and other university related activities that may cause them to be absent from school from time to time during the semester. Every effort will be made to inform students ahead of time including providing guest or substitute critics, concerning expected absences from studio.

Medical/Personal Problems: Students with medical problems or family emergencies, which will keep them from the seminar or cause a paper presentation or studio presentation to be submitted late are expected to notify their faculty as soon as possible, and preferably before the work is due. Verification of illness or family emergencies may be required (i.e. physician’s statement, obituary, etc.). Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student’s ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness - www.wellness.utah.edu; 801-581-7776.

Wellness: Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student’s ability to succeed and thrive. For helpful resources contact the Center for Student Wellness at www.wellness.utah.edu or 801-581-7776. There are also helpful links on the Canvas website, on the Student Wellness Links page.

Outcomes, SPCs and Rubrics: See attached the learning rubrics expected of all students enrolled in the class. Further students should expect within the requirements of this class to demonstrate an understanding of the following NAAB required Student Performance Criteria (SPC):

A.1 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.3 Investigative Skills: Ability to gather, assess, record, and comparatively evaluate relevant information and performance in order to support conclusions related to specific project or assignment. A.4 Architectural Design Skills: Ability to effectively use basic formal, organizational and environmental principles and the capacity of each to inform two- and three-dimensional design. A.5 Ordering Systems: Ability to apply the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design. A.6 Use of Precedents: Ability to examine and comprehend the fundamental principles present in relevant precedents and to make informed choices regarding the incorporation of such principles into architecture and urban design projects. B.1 Pre-Design: Ability to prepare comprehensive program for an architectural
project that includes an assessment of client and user needs: an inventory of spaces and their requirements; analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and assessment of their implications for the project; and a definition of site selection and design assessment criteria. 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. C.2 Integrated Evaluations and Decision-Making Design Process: Ability to demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design problem. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation. 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.

Course Learning Rubrics:

**Concept:** Your concept should be an abstract generative idea that expresses or leads to criteria for design. This includes:

- Conceptual ideas clearly expressed in graphic and oral presentations.
- Concept is stated as a clear and concise idea and evident in the work.
- Concept responds to site and contextual factors.
- Concept responds to and is guided by the building user program.
- Concept is developed and reflected coherently in many aspects of the design, i.e. students should not say one thing and do the opposite.

**Site:** The project should have a clear functional diagram in response to site and context. This includes:

- Appropriate site documentation / diagrams to justify site response, diagrams should be organized to present a clear argument to support student’s choice of site.
- Clear relationship between the building and both immediate site and greater context including but not limited to appropriate scale/ massing, expressed in diagrams which include the building parti.
- Service access to building visible on site ground floor plans and diagrams
- Legible and minimum required means of egress and handicapped accommodations including site access from public right of way, and diagrams of each floor plan unique situation.
- Precedents and Program: Each student should have developed their individual Design Problem and Programming statement that includes research and benchmarking of prototypical buildings and development of a list of program spaces and relationships.
- Presentation of images and diagrams from at least two building precedents.
- Clear illustration of why each precedent was significant to the design process.
- Comprehensive and effective presentation of building program including room roster, attributable area and building efficiency calculation using chosen precedent analysis.
- Building Plan/ Section and Elevations: The plans and sections should be complete and have clear and legible functional diagrams. This includes:
  - Plans should be spatially developed and clearly articulated, incorporating legible spatial expression and experiential diagrams.
  - Plans and diagrams should clearly show ordering systems, structural systems and material expression.
  - Clearly visible connections between the design diagrams and the concept in plan, section and elevation.
  - Appropriate organization of program within the building. The program is appropriately scaled with clarity and intension evident in the arrangement of parts.
  - Clear architectural expression of space, material and building MEP systems.
  - A developed and appropriate structural system.
Oral and Graphic Presentation: Your oral and graphic presentation should clearly and concisely explain the concept for your building and how this concept is visible in the architecture. This includes:

- Clear and consistent composition of graphic presentation; sheets are composed to effectively communicate the design ideas. Graphic presentation should be focused and include clear titles and articulated explanations.
- Focused explanation of information: presentation should include clear points and a logical flow and employ effective, expressive, and appropriate language.
- Process and idea development: You should have clear graphic and oral presentations of your process and has your idea has developed; including references to research, precedents, program, and site development.

Design Development: Through iterative models and explorations to local building materials and techniques, students are to develop a method of building that understands convention and limits yet extends them to new levels of understanding.

- Evidence of design decisions that demonstrate broad integration and consideration of environmental stewardship. Technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems and building envelope systems and assemblies.
- Technically clear drawings and/ or models identifying the assembly of materials, systems and components appropriate to the design idea and to one another.
- A clearly presented detail that reflects their overall design idea, and reinforces and informs the plans, sections and elevations.
- Evidence of investigation across different scales to inform the larger urban and design strategies of your project.
- Evidence of achieving harmony from the particular and detail to the whole building and environmental impact.
- Convincing structural framing plan that demonstrates bay spacing, column location and how the particular system selected informs and is appropriate to the architectural idea.
- Convincing mechanical system demonstrated in diagrammatic form to identify a strategy for passive and active solar and general mechanical methodologies, i.e. geothermal, heat reclaim, double wall systems, thermal mass etc. The corresponding space allocation for equipment should be appropriate.
- Accessibility and means of egress should be based upon an occupancy calculation derived from the IBC and understanding of minimum understanding of standards such as dead-end corridors, enclosed vertical egress, accessibility routes, areas of refuge etc.

Studio Objectives include:

- Demonstrate ability to execute an architectural project through all of its phases from research to design
- Develop an individual design process and demonstrate a critical understanding and reflection on it
- Develop competing approaches to architectural, spatial and material solutions
- Synthesize architectural and spatial solutions and research into schematic proposals
- Propose a viable architectural design or a rigorous alternative exploration driven by more theoretical considerations
- Demonstrate effective schedule and project management
Spring 2020 Semester Schedule: FINAL STUDIO (DRAFT)

January
Week 1  Studio kick-off: project proposals and goals presented by students; meetings with Michael Abrahamson and studio faculty advisor
Week 2  Site analysis + precedent studies; Programming (analysis + diagrams)
Week 3  Concepts and Parti

February
Week 4  Final Conceptual Statement and Parti Due
Week 5  Massing Studies
Week 6  Schematic Design
Week 7  Site Plan, Schematic Floor Plans + Site Sections, Final Program Due

March
Week 8  Final Schematic Design, Develop Design in Scale Model(s)
Week 9  Design Development: Structure / Materials / Systems Integration (if applicable to project/investigation)
Week 10  SPRING BREAK / No Classes 3/9 – 3/13
Week 11  Identify key experiential moments to develop in renders
Week 12  Interim Review (to determine Spring or Summer semester completion)

April
Week 13  Finalized Design Solution Due (Text / Drawings / Model / Renders)
Week 14  Presentation Drawings (Diagrams, Plans, Sections, and 3D Drawings) Presentation Project Text
Week 15  Final Studio Presentation / JURY REVIEW April 21
Week 16  Final book for College archive Due