ARCH 573
Micro House: A Design/Build Studio

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The Initiative

The Design/Build Studio affords graduate students in the School of Architecture the opportunity of exploring design process as it directly relates to both the practice of custom design, as well as to the fabrication of a given project. For many students this studio represents a unique learning opportunity whereby design strategies are cultivated via a hands on approach. Design thinking is critically assessed by its direct correlation to a number of real world factors such as; client satisfaction, design impact upon its communal and cultural environments, project sustainability, as well as to a project's constructability. While the Design/Build Studio looks to physically build a project, it also looks to fundamentally transform students' appreciation and understanding of the design process through this unique real world learning experience.

The Studio

The Micro House studio model itself is representative of small architectural firms where the demands associated with today's residential Architectural Practice must be thoroughly considered. As it is within the profession of Architecture, the Micro House project of 2022 emerges in a culture responding to new ways of living, new trends in the amount of time we spend in a home, and ultimately grappling with the notions of what activities define people's interaction and connection with the built environment. The Covid 19 pandemic of 2020 adds a significant challenge to this task where architects and designers of this new era must consider new strategies where the physical environments for living, work, socializing, research, teaching, mentoring, and collective learning are all being rethought. To add further challenge to the studio tasks, design/build trends have also transitioned in recent years. Many clients operating on smaller budget are poised with the belief that money and time spent on architectural design diminishes their financial assets rather than contributing economy to the intended work. Consequently, the very nature of residential Architectural practice has now evolved with an ongoing and mandatory necessity to give clients a tangible understanding of what opportunities critical and objective design thinking bring to a project. Students are ultimately challenged to effectively engage in the design process while they vie for architectural contributions which elevate value, perceptions, and expectations within today's architectural landscape. To this end, the Micro House model strategically serves as a mechanism where the influences upon

architectural design can be recognized, considered, researched, and integrated throughout the entire design/build process.

The Design/Build Process

During the first phase of the semester, students advance critical design thinking with respect to the essential topics surrounding human habitation. Students are challenged to consider: why, where, for whom, and how we design and build architectural proposals. Design proposals shall receive an unmistakable evaluation as to their sensitivity to the intended human experience; and are challenged to consider how this experience is interwoven within spatial qualities of the intended architecture.

In the second phase of the semester, student's work is challenged to balance design exploration with the demands and requirements associated with the realm of fabrication; where conceptual and schematic designs are transformed into fabrication details and construction documentation. In addition, design thinking must now incorporate the influences of: city codes, zoning and planning requirements, national building and energy codes, life safety criteria, building costs, mechanical (MEP) integrations, structural systems, material types and their sustainability. The completed Studio work shall represent a responsive, innovative, fully integrated, and buildable architectural solution.

In the third phase of the semester, students shall participate in the fabrication of the designed project where each and every consideration given to design thinking is now realized in the intended physical product. Through this final process of making, design students gain an immense appreciation of how the sequence of fabrication and techniques of craftsmanship ultimately contribute to the architecture's uniqueness, appropriateness, and overall success. The eventual scale and fabrication scope of the given studio project shall be determined by the instructor and shall align with the support and goals of the ISoA and the College of FAA.

Outcomes

The Micro House studio guides students through a series of real world experiences with the belief that this exposure sets the stage for a transformative learning process. While this principle holds true throughout the design build sequence, the Studio also intends to specially:

- Better prepare graduate architectural students for the realm of architectural practice.
- Strengthen an awareness of the social responsibilities as well as the professional obligations of the architect.
- Reinforce the dedication to learning and researching strategies for problem solving the complex integrations associated with architecture.
- Transform the life of its current and future clients and to transform the community in which they live and work.

- Elevate the representation of the University of Illinois-School of Architecture and the College of FAA within the local community.