

# ACSA/AIA Housing Design Education Award

2015-2016 Winner Submission Materials

University of Oregon Housing Specialization Program

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## Housing Program Resources and Opportunities for Students

Students in the Department of Architecture have the opportunity to take housing studios and housing-related subject area courses, to develop a focus in housing, and for graduate students, pursue the newly approved Housing Specialization, the first specialization approved by the university in our department. Students completing the requirements for this specialization (studios + 12 additional credits in subject-area courses) will have the specialization on their official university transcript. The following are resources and opportunities for students in the Housing Program and Housing Specialization:

**Studios:** At least one two-term "thesis" studio on housing each year if offered. Each fall, an intermediate studio dubbed the Boot Camp Housing Studio by students because of its intensity of numerous very short projects, each on a different housing type. A Design studio as part of the Design / Build Program. Additional housing studios with a variety of project types offered on a non-regular basis (e.g., high-rise, courtyard housing, row houses, co-housing, mixed-use, infill housing, neighborhood design)

**Courses:** Housing Prototypes, Housing Design, Community Design, Minimal Dwelling, Residential Construction, Build as part of the Design/Build Program. Additional courses have been taught on an occasional basis such as Affordable Housing, Site Planning for Cluster Housing, Intentional Communities. Courses in other departments have included Real Estate Development, Affordable Housing, History of a specific architect known for housing, etc.

**Independent Study:** Students with special interests in an aspect of housing are engaged in independent studies almost every term, working with one of the three primary housing faculty members. Student competing in national and international housing competitions obtain faculty sponsorship by one of the three primary housing faculty members as well as others.

**Specialization:** Housing Specialization designation (studios + 12 credits of subject-area course work) Internships: Students have been placed in numerous offices as housing interns as well as in a Practicum.

**Advising and Mentorship:** The Director of the Housing Program (one of the three primary faculty members) is the primary advisor for those interested in housing and/or the specialization. Students also have opportunities to have professional mentors from local offices.

**Consultants:** Students in the final thesis studio offered by one of the three primary housing faculty members are each teamed up with an outside "housing consultant" to provide additional input and review.

**Placement after Graduation:** Students are assisted in placing them in offices that specialize in housing. Many of the firms providing consultants hire those students. We have an on-going relationship with many firms that provide consultants and hire our students. Two students in the past ten years have gone on to become Rose Fellows and work in affordable housing.

**Research:** Faculty members doing funded, and non-funded, research hire students in the housing program as research assistants.

**Reviews:** In addition to faculty on studio reviews, there are about 20 local professionals who are involved on a rotating basis as reviewers and guest lecturers.

**Funding and Studio Support:** Nationally recognized firms have provided financial support for student and faculty travel, consultants for studios, and guest lecturers on housing.

**Visiting Faculty:** The Department has an endowed professorship that has provided funding for nationally known housing designers to teach a studio and subject-area course one term during the year. We have also hired additional studio instructors from out of town and out of state to teach housing studios to provide a fresh perspective.

**Housing and Office Tours:** Students in the two-term final housing studio typically go on a field trip out of state to visit projects and firms. Nationally recognized firms provide lectures, tours of projects and office tours while on the field trip. Students also visit local housing projects in course work but also when a new project is completed and prior to occupancy, tours are usually arranged of those projects.

**Relationship to Local Constituencies:** There is a very strong relationship between the local municipalities in all matters with housing. One local municipality has sponsored studios to investigate issues of current importance. There is also a very good relationship with the local affordable housing agencies (one primary faculty member worked for the state housing authority for three months while on sabbatical, and two have been board members of a local non-profit housing agency). Elected officials at the local (mayor), state (governor), national (congressman) have been strong supporters of our programs and are currently backers of an affordable housing proposal dealing with a specific building material.

## Housing Program Course Sequence

Course's offered on a regular basis. Additional housing related electives are available on a non-regular basis in both the Department of Architecture and other units on campus.

### Academic Year (odd numbered years)

#### Fall Term

Housing Prototypes\*  
Housing Design\*  
*Boot Camp* Housing Studio  
Additional (typ) Housing Studios  
Design / Build\*\*  
Electives\*\*\*\*

#### Winter Term

Minimal Dwelling  
  
Housing Studio  
Thesis Housing Studio\*\*\*  
Design / Build\*\*  
Electives\*\*\*\*

#### Spring Term

Residential Construction  
  
Housing Studio  
Thesis Housing Studio\*\*\*  
Design / Build\*\*  
Electives\*\*\*\*

### Academic Year (even numbered years)

#### Fall Term

Housing Design\*  
Housing Prototypes\*  
*Boot Camp* Housing Studio  
  
Design / Build\*\*  
Electives\*\*\*\*

#### Winter Term

Community Design  
  
Housing Studio  
Thesis Housing Studio\*\*\*  
Design / Build\*\*  
Electives\*\*\*\*

#### Spring Term

Residential Construction  
  
Housing Studio  
Thesis Housing Studio\*\*\*  
Design / Build\*\*  
Electives\*\*\*\*

- \* Housing Prototypes and Housing Design are both offered each fall term, but alternating between our main campus and a satellite campus. The faculty member teaching their course on the main campus in the fall also teaches the two-term Thesis Housing Studio that year with his fall course also serving as a research and programming class for the Thesis Housing Studio. Both Housing Prototypes and Housing Design attract well over 70 students.
- \*\* Depending on the type of project and schedule, the Design / Build courses will vary between a Housing Design Studio followed by Build program that may include students from the previous Design studio.
- \*\*\* Every student in both the B.ARCH and M.ARCH degree programs is required to complete a two-term final comprehensive studio. Of the five or six choices offered on the main campus each year, at least one is a Housing Studio, typically taught as a Thesis studio where the students develop their own program and choose their own site, within a structure that differs for the two primary faculty members teaching these studios.
- \*\*\*\* Electives may be offered in the department as well as other units. Over the years these electives have included: Affordable Housing, Site Planning for Cluster Housing, Real Estate Development, Post Occupancy Evaluation, Intentional Communities, History of Housing (a specific architect or location), etc.

## Housing Prototypes

**Format:** This course is structured as a combination lecture and seminar/discussion.

**Prereq's:** Junior Standing

**Credits:** 3 credits

### Course Description

Examines modern housing prototypes from the 1920s to the present with an emphasis on understanding the many and varied factors involved in the production of high-quality housing.

Special emphasis will focus on the review of appropriate housing models for the future, given demands for increased density and responding to diminishing natural resources. Case studies primarily from the U.S., but also from Europe, the Middle East, and Asia, will be examined. Issues addressed will include: differences in housing form as a result of density issues (e.g., from s.f.d. to high-rise point towers); site, building, unit design principles; relationship of inside to outside; affordability; housing policy and housing financing; construction technology; zoning and building codes; new and emerging lifestyles (changing demographics); New Urbanism; homelessness; manufactured housing; special user groups (e.g. elderly); social and behavioral factors as form determinants; origins of suburbia and multi-family housing; providing a sense of community, identity, and memorable image in neighborhood design.

### Instructional Objectives:

Students are expected to develop an:

- Awareness of the many and complex factors involved in the design of various housing types.
- Understanding of the theoretical, traditional, symbolic, practical, and technical considerations of various housing types and their application.
- Ability to analyze and design appropriate housing projects based on the emphasis and issues addressed in this course.

### Primary Texts:

- New Households, New Housing by Franck
- Good Neighbors: Affordable Family Housing by Pyatok
- Housing by Macsai
- Making a Middle Landscape by Rowe
- Modernity and Housing by Rowe
- Modern Housing Prototypes by Sherwood
- ReBuilding by Solomon



## Housing Design

**Format:** 3 Hours Lecture / Discussion per week with presentations by the instructor and visitors, and in-class pin-ups of student projects.

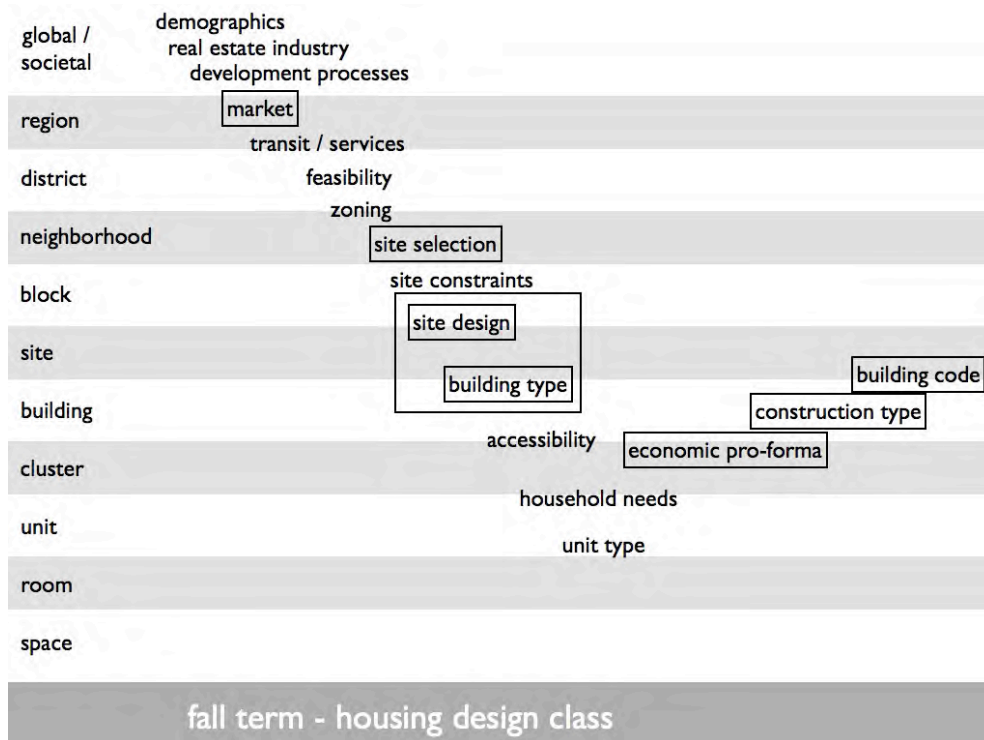
**Prereq's:** This is a general subject area class open to all students who have completed the introductory level studios, but it also functions as the preparation class required for all students registered in my comprehensive housing studio.

**Credits:** 3 Credit Hours

### Course Description:

the past 50 years, housing in the US has been a response to increasing affluence, marketing, and the landscape of the automobile. In the next 50 years, housing design will need to respond to a very different set of parameters - climate change, high fuel prices, infrastructure implosion, an aging population and growing income inequality. How we design housing will have a major impact on the world itself, and on how well we as a people can transition to this new set of circumstances. With these new demands, the complexity of housing design will rapidly increase: there will be denser, compact developments, and with this density will come new design challenges.

While this course will examine both the present and future forces, there will be an emphasis upon developing analytical skills and learning specific techniques to apply this knowledge in developing housing proposals that are both realistic and visionary. The intent of this course is to bring together in one place the basic information and principles needed to effect change in housing design, structured in such a way as to make it directly helpful as it is applied in the design process.



## Community Design

**Format:** This course is structured as a combination lecture and seminar/discussion.  
**Prereq's:** Junior Standing  
**Credits:** 3 credits

### Course Description

Multidisciplinary examination of the history, theory and practice in the design and development of meaningful and sustainable neighborhoods.

The class will begin with an examination of the changes in suburban neighborhood design over the past 100 years as a result of changes in technology, governmental policies, life styles, demographics, and values. Special emphasis will focus on the review of appropriate housing/neighborhood models for the future, given demands for increased density and responding to diminishing natural resources. Case studies primarily from the U.S., but also from England will be examined. Issues addressed will include: differences in housing form and neighborhood morphology as a result of density issues (e.g., site, building, unit design principles); affordability; relationship of built environment to natural environment through whole systems approach; housing policy and housing financing; zoning and building codes; new and emerging lifestyles (changing demographics); New Urbanism and neo-traditional town planning; social and behavioral factors as form determinants; origins of suburbia and multi-family housing; providing a sense of community, identity, and memorable image in neighborhood design.

### Instructional Objectives:

Students are expected to develop an:

- Awareness of the many and complex factors involved in the design of various neighborhood types.
- Understanding of the theoretical, traditional, symbolic, practical, and technical considerations of various housing types and their application to good community design.
- Ability to analyze and design appropriate neighborhood projects based on the emphasis and issues addressed in this course.

### Primary Texts:

- Suburban Nation by Duany
- Building Suburbia by Hayden.
- Geography of Nowhere by Kunstler.
- The Death and Life of Great American Cities by Jacobs
- Building the Dream by Wright,
- Sprawl: Compact History by Bruegmann.
- Making a Middle Landscape by Rowe
- Crabgrass Frontier by Jackson.
- Retrofitting Suburbia by Dunham-Jones.
- Visions for a New American Dream by Nelessen.
- Sustainable Communities by Van der Ryn.
- Collaborative Communities by Fromm.
- The Next American Metropolis by Calthorpe.
- Rural by Design by Arendt.
- Housing as if People Mattered by Cooper Marcus



## Minimal Dwelling

**Format:** This course is structured as a combination lecture, seminar/discussion, work shop  
**Prereq's:** Junior Standing  
**Credits:** 3 credits

### Course Description

Examination of the design of small dwelling units for a variety of user groups and special situations.

This course is an examination of small unit design at higher densities as a strategy to deal with compact growth and affordability. In addition, shelters for the homeless, disaster-relief housing, migrant farm worker housing, S.R.O. hotels, capsule hotels, and manufactured/modular/prefab homes will be examined. The course will review various examples of small unit design and students will research, design, and/or construct prototypes, depending on individual student interests.

### Instructional Objectives:

Students in this class will be introduced to a variety of societal and environmental problems specific to providing (significant) shelter for special user groups. In addition, in a world of diminishing natural resources and increased world populations, the need to downsize is becoming even more important. Thus, in addition to addressing very small temporary structures, students will investigate strategies for increasing density with small unit designs that also incorporate a strong integration with open space. By addressing some of the societal issues of homelessness, students should have a greater understanding of the knowledge to mitigate social and environmental problems, the understanding of ethical implications of decisions involving the built environment for special user groups, and why it is necessary to provide a commitment to professional and public service beyond the status quo of traditional practice. It is the intention of this course that students will continue after graduation to provide meaningful design input that will successfully address many of our societal problems of affordability, sustainability, and homelessness, in not only professional work, but also through volunteer work.

Students are expected to develop an:

- Awareness of the need that exist for providing significant shelter for all members of our society and all cultures.
- Understanding the diverse needs, values, behavioral norms, physical ability and social and spatial patterns that characterize different cultures and individuals and the implications of this diversity for the societal roles and responsibilities of environmental designers.
- Ability to analyze and design appropriate residential environments in a comprehensive manner, demonstrating the important social, life-safety provisions, building assemblies and the principles of sustainability associated with small unit design.

### Primary Texts:

Prefab Prototypes, by Anderson, Design Like you Give A Damn by Sinclair, Prefab by Arieff, Designing for the Homeless by Davis, Architecture in Times of Need: Make it Right by Feireiss, Migrant Farm Workers: A Caste of Despair by Goldfarb, Prefab Green by Kaufman, Small is Beautiful by Schumacher.



## Residential Construction

The Art of Domestic Building

**Format:** Four Hours Lecture / Discussion per week.

**Prereq's:** Junior Standing in the Architecture Program

**Credits:** 4 Credit Hours

### Course Content:

Through lecture presentations, readings, field trips, projects, and class discussions, this course will explore fundamental principles of residential structure and construction. Light wood frame construction will be studied in some detail because of its predominance in our building culture. This emphasis on a single system will establish a foundation for further study of different systems according to the interests of each student. Students will complete projects based on the analysis of existing buildings and buildings under construction, will research and report to the class about specific systems or details, will construct detailed models and/or make detailed drawings that will be incorporated into a building of their own design. The importance of quality and craft will be stressed throughout the course.

### Course Objectives:

The objective of this course is to provide an understanding of the basic materials and methods of North American residential construction with emphasis on the design, and construction of the wood light frame. The foundation for, enclosure of, systems within, and interior finish of this construction will be examined in relation to design variables. Emerging alternative construction methods such as ICF, SIP, and others will also be discussed. There will be an emphasis on environmentally responsible techniques and materials. The class will study:

- properties of materials and the rationale for their assembly
- basic principles of structural systems using a non-mathematical approach
- standard wood light frame construction system
- fundamental ideas of building technology that can be directly applied to studio design work

Principles learned in this class will provide a foundation for the continuing study of residential design and construction in academic and professional settings.

### Primary Texts:

Three textbooks, authored by the instructor





## Design Build Program - "Design"

**Format:** A collaborative design studio with 3 4-hour studios per week.  
**Prereq's:** Junior Level or above. Open to students in Architecture, Landscape Architecture, and Interior Architecture.  
**Credits:** 6

### **Project Description:**

The residential design-build program has been developed through the generous support of a variety of foundations, developers, non-profits, and housing agencies. The goal of the program is to provide students in architecture, landscape architecture, and interior architecture the ability to design and collaborate not only together, but with local professionals in the design and construction of one residence per year.

### **A Local Model:**

To succeed both pedagogically and financially, the Design/Build Program is structured to produce a small, affordable residence that responds to the local market while also focusing on low-tech, environmentally responsible strategies. Experience from past years, polling of local markets, and the advice of local real estate experts will help inform design choices.

### **The Studio:**

The entire studio will work collaboratively toward developing a single design that can be constructed during winter and spring terms. The first few weeks of studio will be dedicated to defining the problem in terms of program, energy performance, code restrictions, and market forces; and each student will make an individual proposal for a design. The studio will then work collectively to synthesize the best elements of each design into a single cohesive proposal that will be developed through the rest of the term, much as it would be in a professional office. The end result of the term will be a set of drawings that describes the proposed house and garden and is ready to submit for a building permit.

### **Design Issues to be Stressed:**

In the first part of the term an analysis of the site, environmental response strategies, and preliminary budget analyses will be central to the generation of schematic design proposals. Later in the term, the focus will shift to design development: refining the character of the project, with special emphasis on materials, building systems, and construction details. Overall talking points will include: the nature of sustainable architecture, fundamentals of residential design – site design, building design, budget, legal restrictions, integration of building technology to define and support the spirit of the project, and collaboration, teamwork, and the role of the individual.



Full-Scale Plan Mock-Up



## Design Build Program - "Build"

### Sustainable Construction at the Building Site

Linking Design to Construction Through Practical Experience

**Format:** A hands-on residential construction course integrating construction practice with design. For 3 credits, students will spend 8 hours per week at the construction site or the project shop plus 1.5 hours in class. For 4 credits and Arch advanced technical elective, students will be expected to spend 4 extra lab hours per week.

**Prereq's:** For 4-credit Arch tech elective: Arch 3<sup>rd</sup> year UG or grad 2<sup>nd</sup> year Track 1 or any Track 2  
For 3-credit Arch subject area elective: same as above

**Credits:** Variable (3-4): 3 credits for Arch subject area elective or university general elective  
4 credits for advanced technical requirement in Architecture

#### Course Description

The hands-on course will focus on the basic principles of residential construction at the construction site. Students will be completing the design and construction of an affordable, sustainable house designed initially fall term Design Build studio and partially constructed by the winter version of this course. The course will be taught through presentations and on-site instruction that relate design to first-hand construction experience – a unique opportunity for students to translate theory into practice. Student-led project teams working with experienced professionals will design and construct cabinets, shelving, stairway, other interior detailing and finishes, and a range of site work. Student teams will resolve on-site design problems in collaboration with the instructor and construction professionals. Sustainability and affordability will be discussed in relation to materials, systems, and methods.

#### Primary Texts

Three textbooks, all by the instructor



Architecture and local community college students building the frame during W14 term. The basic shell was erected in 4 weeks with the aid of a professional framer and unusually mild winter weather. Students in spring term will design and install cabinetry, stair rails, finish surfaces, trim, and will resolve a range of other interior and exterior details.

## Housing Design Studio - "Boot Camp"

**Format:** 3 4-hour studios per week. An introduction to the design of various housing typologies (e.g., single-family detached with ADU, Row House, Courtyard Housing, Walk-Up). Each typology will be assigned and due in typically a short, intense, nine-day time frame. The final project will be a three-week project on a larger site utilizing at least two of the types examined.

**Prereq's:** This is an intermediate studio for both undergraduates and graduate students.

**Credits:** 6 Credit Hours

### **Intent of the Studio**

The intent of the "Boot Camp Housing Studio" is to examine creative solutions to current issues of affordability, density, sustainability, and new and emerging lifestyles in a series of very short projects, each addressing issues associated with various housing typologies.

### **General Overview:**

There has been much discussion recently regarding the appropriateness of the suburban housing model of cookie cutter subdivisions. This approach to housing is not energy efficient (e.g., typically low density with large sfd houses) nor sustainable, not only in an environmental sense, but also with regards to community sustainability. And while the urban context has received a great deal of investigation recently, the zone between suburbia and urban has had fewer significant projects. This studio will investigate options for increasing densities in this type of zone, while also providing a variety of housing types for various users.

### **Project Description**

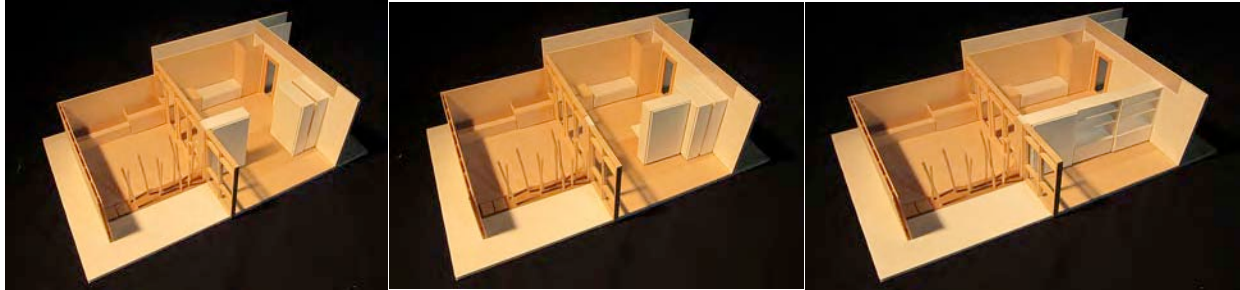
A series of short 7-9 day exercises, each "week" examining a different housing/site typology (e.g., single-family detached with accessory dwelling units, row houses, courtyard housing), will serve as basic research and design for the development of a final project on a larger hypothetical site, with an emphasis on low-rise, medium density housing such as attached patio homes as well as at least two of the previous housing typologies examined. In addition, a daily sketchbook will be required.

### **Studio Methodology**

This studio will be a highly structured, professionally oriented, demanding studio format. In order to achieve the most efficient educational objective of understanding issues associated with higher-density low-rise housing, programs for each type will be provided. Challenging current thinking is encouraged, if based on a sound set of intentions. Presentations by the instructor will be given at the beginning of each housing typology assigned to help prepare students in the development of a meaningful project.

## Housing Design Studio - "Boot Camp" Student Projects

### In-Door / Out-Door Room with Multiple Uses (5-day project)



**Zero-Lot Line SFD on 40' wide lot with ADU.** (7-day project). Students are assigned a site on a block and may negotiate with neighbors for siting to achieve maximum solar access. No spatial vocabulary is dictated. Students are encouraged to explore a variety of ideas.



### Row House (9-day Project)



### Courtyard Project (12-day project)



**Walk-Up Project (9-day Project)**



**Final "Boot Camp" Housing Project - Mix of Housing Typologies (3-Week Project)**



**One student's comments about the "Boot Camp" Studio:**

"This studio would probably be my favorite design studio so far in my college education. As it was my first intermediate studio, was very nervous as to how it would be structured. I really enjoyed the higher level of independence, where what you got out of critiques is what you put in. I was also very nervous about the multiple 9-12 day design projects, rather than one 10-week project, but I really enjoyed the demanding, and quick production. I liked how we were able to explore many different housing typologies, rather than focusing on just one. I also liked how the instructor actually presented each project with some background and information of the housing type, which is surprisingly rare. I wouldn't change a single thing about this studio."

## Final Housing Design Studios - Thesis

- Format:** 3 4-hour studios per week  
**Prereq's:** Housing Prototypes or Housing Design. Completion of all required advanced studios and all technical subject-area courses.  
**Credits:** 8 Credit Hours each of two terms (quarter system)

### **Intent of the Studio**

The final two-term design studio is intended for students to demonstrate their ability to produce a highly comprehensive, synthesized project that integrates all architectural issues, elements, systems, etc., in one final project of the students choosing.

The majority of the research, precedent study, programming, and site analysis, can be accomplished by fulfilling course requirements in the fall term by taking Housing Prototypes or Housing Design. If for some reason students are unable to take either course, or have already taken it earlier, students are encouraged to take an "independent study" to complete all pre-design expectations.

### **Schedule**

The studio is highly structured with weekly bench marks to address all issues involved in the design of meaningful multi-unit housing projects. During these weekly topics (e.g., site considerations, structure, codes including the Fair Housing Act, sustainability, ECS and HVAC, Life Safety, materials and construction types, enclosure systems, pro forma, spatial composition), the instructor provides lectures and/or brings in an outside expert to discuss in more detail the specific issue being considered.

### **Field Trips**

Typically an out-of-state field trip to a major city with many housing firms and many projects to tour as case studies takes place either before the winter term studio starts or during the first week. Funding for field trips has been provided through grants as well as from the generous support of architectural offices.

### **Consultants**

Students in the Housing Thesis Studio are given the opportunity to have an outside consultant who agrees to mentor the student during her or his thesis project. Many, if not most, of the consultants are out of town/state and highly regarded in the profession. Consulting takes place by email, Skype, and by students visiting with the consultants. Many students end up getting jobs with the firms their consultants are from.

### **Reviews**

Formal studio reviews occur at least twice a term. Reviewers include faculty members, but mostly local housing professionals who donate a considerable amount of time. Typically there are more reviewers than students.

### **Final Products**

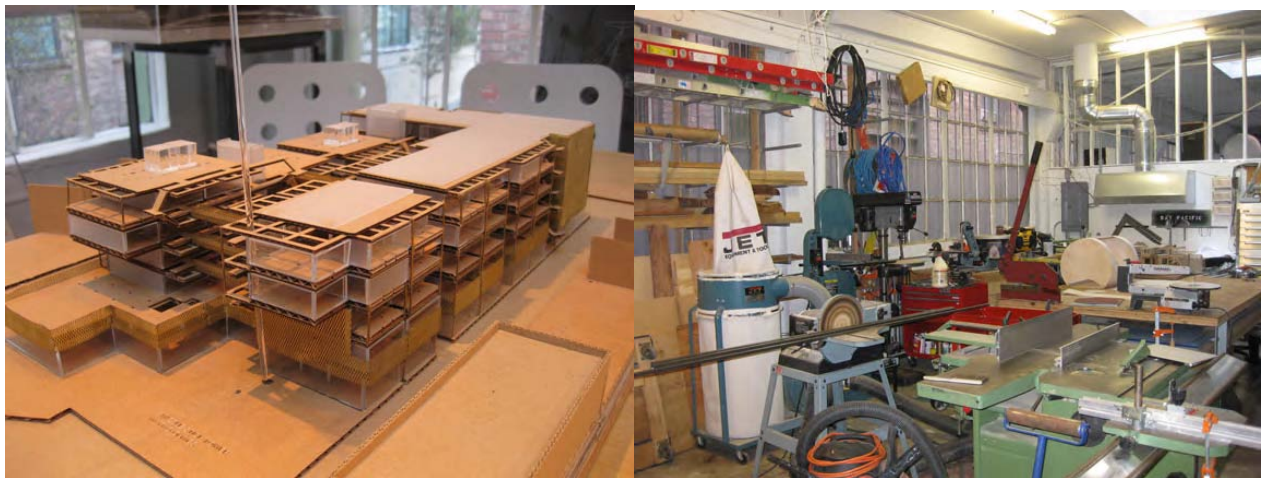
All students are required to present not only a graphic presentation, but contribute a one-page description for a class brochure, and a comprehensive booklet of all research, precedent studies, site analysis, code search, pro forma, systems analysis, and details of enclosure systems, etc. This booklet has been instrumental in not only requiring a synthesis of all issues, but it has helped tremendously for students finding jobs.

### **Field Trips**

Visiting a project with the nationally recognized architect. Touring another exemplar project

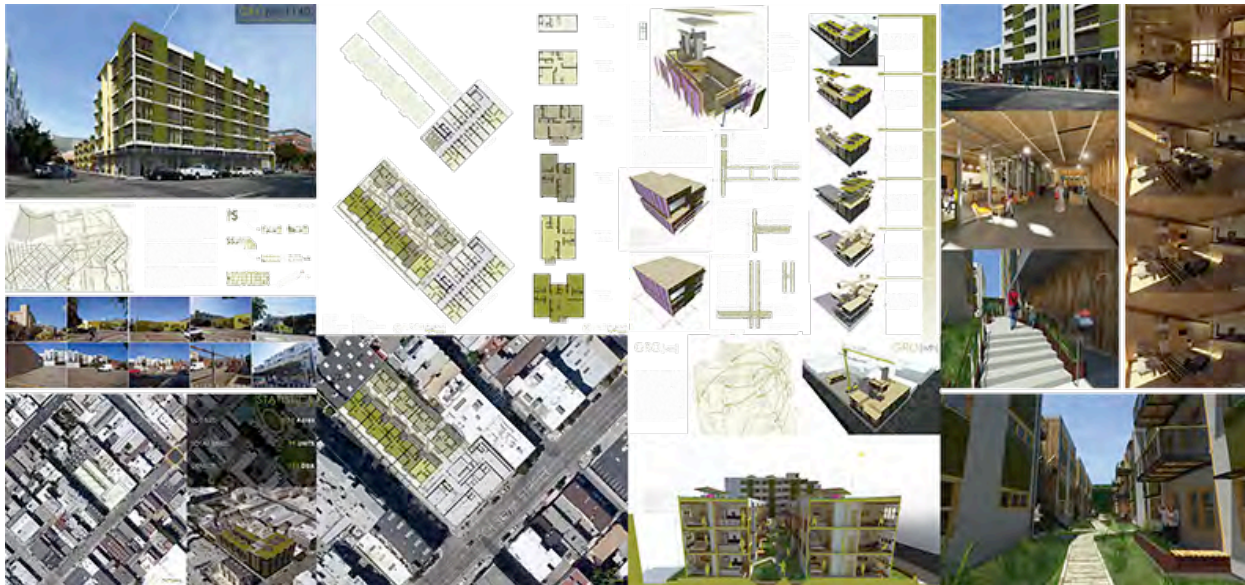


**Visiting Architectural Offices**, some traditional, others with a "hands-on" approach.

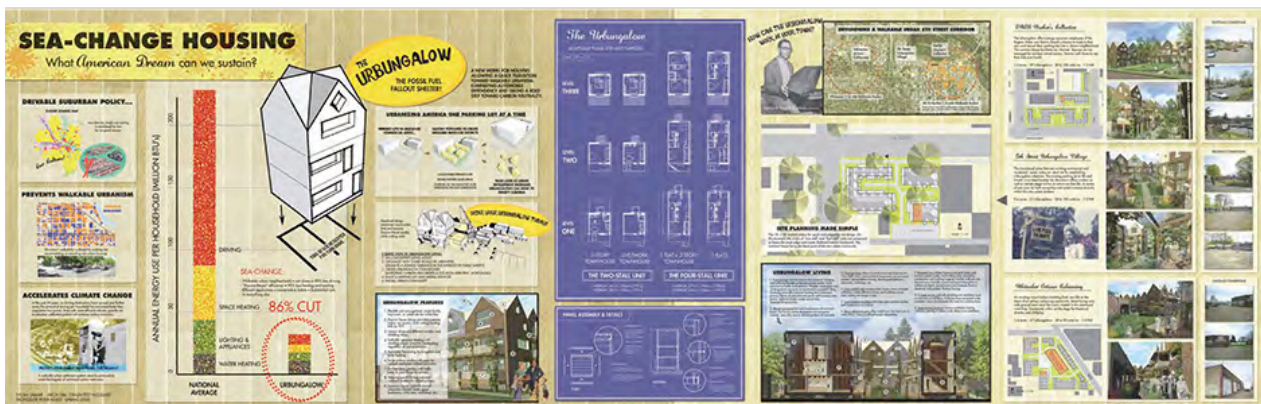


## Final Housing Design Thesis Studio – Student Project Examples

**Will Z's Project - Winter/Spring 2014** (*Housing Prototypes* the previous Fall Term)  
Will's project involved examining modular construction for micro units in San Francisco. His "consultants" consisted of two principals from a large firm engaged primarily in housing. Will was hired immediately after graduation and his first project was taking a lead on a similar project, also in San Francisco. This studio was provided funding in the amount of \$15,000 by a major firm to assist with student needs (e.g., travel, material).



**Dylan L's Project - Winter/Spring 2009** (*Housing Design* the previous Fall Term)  
Dylan's project involved examining new models for space and energy efficient housing for the future. His background as a Passive House expert played a key role in his project. Subsequently, \$5,000 in funding was provided to bring him back as an energy consultant for the housing thesis studio this past year taught by the same instructor.





**Final Housing Design Thesis Studio – Student Project Examples**

**Brent S's Project - Winter/Spring 2008** (*Housing Prototypes* the previous Fall Term)

Brent, an Honor's College student, examined different strategies and configurations for providing Housing for the Homeless. His Honor's College Thesis, as partial preparation for this design thesis, received the University Honor's College President's Award for Best Thesis. After graduation, Brent received a major year-long traveling fellowship and after working a few years is now completing a post-professional degree in Architecture at Yale.

The emergency shelter would offer the oversight of homelessness with an optimized layout that engages the disciplines with pertinent services that cater to those with the greatest needs. Duration of stay would be limited to a few nights until transitional housing becomes available. Financial support would come from affiliated nonprofits.

Transitional housing seeks to increase independence among residents through a defined period of stay that maintains a strong connection with services. Chronically dependent and chronically unemployed residents would be given an opportunity to gain stability during a stay ranging from six months to two years. Supplementary funds would be found largely through nonprofits.

Supportive housing blurs the boundary between transitional and permanent housing. A stable residence is connected with a satisfaction of service components, responding to the increased need of a supportive infrastructure among residents such as single mothers or disabled veterans. Similar funding from public and private sources would alleviate the related rent rates in downtown.

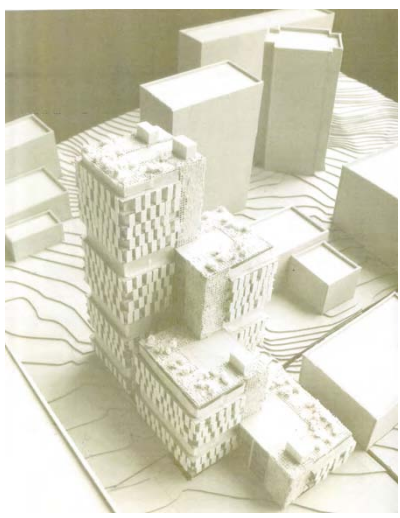
Public housing offers the greatest permanence in the continuum of care. Residents would include families and seniors that earn less than 40% percent of the median income, 70% percent of which would pay the rent. The remaining cost would be subsidized with public and private funds, with mechanisms such as housing vouchers and tax credits.

**HOUSING THE HOMELESS**  
Robert D. Clark's Honors College Thesis

The homeless demographic fluctuates in response to economic, political, social, and environmental aspects. As the climate of unresolvable conditions changes so does the population of those with inadequate shelter. Responsiveness to unpredictable, tumultuous patterns is a crucial determinant for the success of a facility that seeks to alleviate homelessness, namely, a programmatic flexibility that ensures longevity. Also imperative in accommodating the homeless population is the combination of housing and service components in a codependent relationship. An inextricable bond between housing and services encourages a successful union in an unbroken chain of related facilities as a continuum of care. The proposed design rubric encourages rigor within the design process, ordering an inordinately distributed process. Iterations of Investigation, Intention, Information, and Interpretation perform cyclic analyses at stages within the design process. Available for download at <http://hell.hollidie.net/1794/6692>

The proposed system of documentation delineates the stream of design consciousness with an iterative rubric of operations that suggest coherence in an otherwise oblique lineage. The rubric is comprised of four categories: Investigation, Intention, Information, and Interpretation. Investigation defines the field on a basic level. It identifies a pertinent topic that serves as the framework for proceeding operations. Intention refines the investigation and clarifies the scope. It is active in character, seeking an ideal that gives direction to the investigation with brevity and clarity through explicitly defined goals. Information offers findings that relate to the intention, serving as substantiating evidence for the following interpretation. Interpretation illustrates possible solutions to a given set of problems. It is formulated from the distillation of information, resolving a line of investigation through informed design decisions. From here, the process begins again with a related investigation that creates a symbiotic cycle that draws from previous iterations to inform subsequent iterations.

Swapping shifts in the shipyard while raising two children doesn't afford time or money for transportation to and from the fringes of the city. Besides, we've already established a sense of community in this international district. Where are we to go with such a promiscuous high cost of living in other parts of Seattle?



## Final Housing Design Thesis Studio – Student Project Examples

**Sam Y's Project - Winter/Spring 2012** (*Housing Prototypes* the previous Fall Term)  
Students in the thesis studio are encouraged to use a variety of both digital and free-hand drawing techniques. Sam's project for medium-density low-rise housing in a suburban neighborhood was done using both. His consultant firm hired him where he has been since.



## Final Housing Design Thesis Studio – Final Reviews

**Final Presentations** include a verbal and graphic presentation, a comprehensive booklet documenting all their work including research, precedent studies, site analysis, and all systems and code studies. The input of outside consultants plays an important role.

**Jamie C.** was hired by her out-of-state consultant's firm. Her project was a project with both market-rate and affordable housing on the same site. The site was suggested by her consultant.



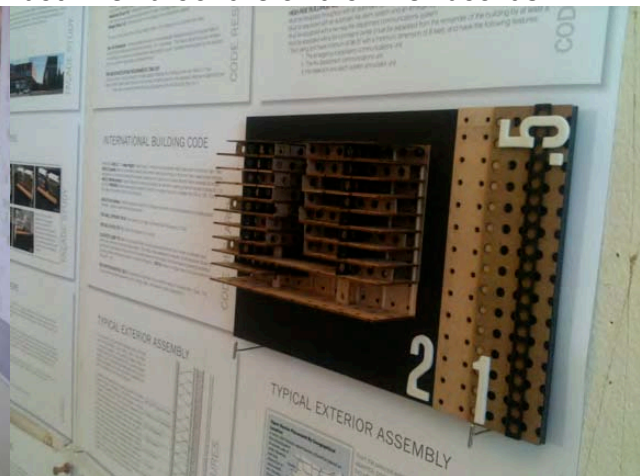
**Amanda A.**, an Honor's College Student, was hired by a large housing firm based on her Net-Zero Multi-Unit Housing Project. She is now the lead on the first Net-Zero Multi-Unit Project in the country. Hired by her consultant



**Sam Y's Final Project.** He worked closely with his consultant which resulted in being hired by his consultant's firm.



**Kate B's Final Project.** Her site was in her hometown of Memphis. She displayed her various system's strategies and research in both her brochure and on her boards.

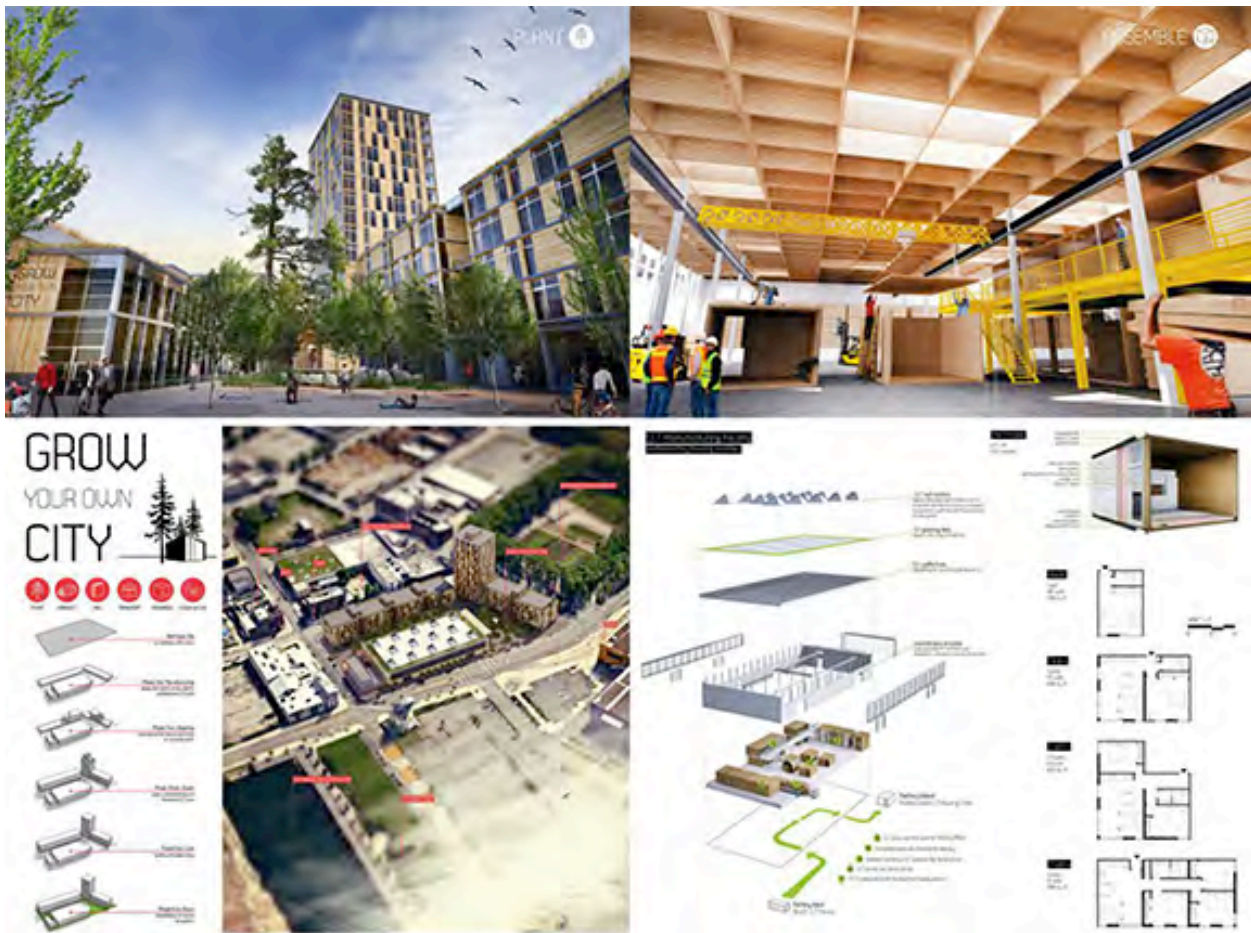


## Other Housing Studios – Student Project Examples

We are very fortunate to have not only the three primary housing faculty members teaching courses, but also numerous other faculty members teach housing studios. Every year, typically, the students at the intermediate and advanced level have the opportunity to choose a studio with a housing emphasis in addition to our regular housing studio offerings. We recently had an endowed distinguished visiting professor teach an affordable housing studio and seminar. Following is a recent example by a permanent faculty member. In Fall 2015 a High-Rise Studio project will be offered. Projects with different issues and at different scale are offered.

### ACSA Timber in the City National Design Competition.

Students in this studio developed housing projects using CLT construction. The example shown (partial board submission) is a collaborative project by three students and is the **National First Place Award Winner**.



## Primary Faculty Teaching in the Housing Program

There are numerous faculty members in the department teaching, conducting research, engaged in scholarship, and/or involved in creative activity and professional practice in residential design. However, there are three primary faculty members directly involved in the Housing Program. They have, for the past ten years, developed a program and sequence of course offering that provide a holistic approach to housing education based on a variety of experiences and focus within the program. The three primary faculty members, combined have:

**Years of Teaching:** 80+ years of full-time teaching.

**Education** (degrees from): UC Berkeley (2), Harvard, Columbia, U. of Oregon, UCLA

**Awards:** Fellow of the AIA, University Teaching (2), ACSA DP, AIA Design (5 local), American Planning Association (State), ASLA, Governor's Livability Award, Progressive Architecture (Citation), New American House Competition (Honorable Mention), Portland Courtyard Housing Competition (2nd Place), Department Funding Awards for Housing (2 at \$12,000 each)

**Professional Experience:** All three are licensed architects in a variety of states. One is a Certified Planner (AICP). All three have their own private practice, albeit all sole practitioners. However, they have worked previously with others such as Dan Solomon, Charles Moore, Charles Kober Associates, and Steven Winter. In addition to architectural practice, their combined experience includes: the Peace Corps, residential building inspector, planner in a City, residential site planning in landscape architecture office, facilitating a national housing competition, building systems and energy consultant, design consultants to other housing firms in the area.

**Scholarship:** Three books on Residential Construction (joint author), Chapter in book on Suburbia, numerous articles on residential architecture, construction, Design/Build, the teaching of housing, cited in Newsweek article on Suburbia, numerous ACSA papers, and professional journals.

**Publications of Work:** *Architectural Record*, *Residential Architect*, *Progressive Architecture*, *Housing*, *Fine Homebuilding* (6), *Neue Top 100 Häuser*, *In-Laws*, *Outlaws*, and *Granny Flats*, *Better Homes and Garden* (2), *Sunset*

**Invited Lectures and Presentations:** AIA National Webinar on Small Unit Design, AIA Chapter Presentations (local and in various states), Affordable Housing Institute, Planning Commission, various universities, urban design centers, multiple civic presentations.

**Research:** Funded research includes numerous grants (e.g., HUD, DOE, NEA, university, municipalities, local utility company, state), applied research grants for residential urban design studies (over 20). Over \$500,000 in funding.

**Professional Service:** AIA Housing Committee (invited member in '80s), City Infill Housing Committee, City Design Review Committee, AIA Chapter President, Board Member on local housing non-profit (2)

**Other Faculty:** AIA Awards, Record House Award, Books, Published Work, FAIA, ACSA DP, etc.