SYLLABUS: ARCH 270 Design in Practice

Design is not just what it looks like. Design is how it works. – Steve Jobs

Good design is a lot like clear thinking made visual. - Edward Tufte

Good design is good business. - Thomas J. Watson Jr.

A designer knows he has achieved perfection not when there is nothing left to add, but when there is nothing left to take away. - Antoine de Saint Exupéry

Architecture is really about well-being. I think that people want to feel good in a space... On the one hand it's about shelter, but it's also about pleasure. - Zaha Hadid

Always design a thing by considering it in its next larger context - a chair in a room, a room in a house, a house in an environment, an environment in a city plan. - Eliel Saarinen

Charles and Ray Eames with Eames Lounge Chair and Ottoman in Living Room in Eames House, circa 1958
University of Maryland
School of Architecture, Planning, & Preservation
Architecture Program
Fall Semester 2012

Faculty
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ARCH 600 Studio
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Course Meeting Location and Times
Room # 1101
Day(s) TU/TH
Times 2:00 – 3:15pm
Instructors will communicate via Blackboard regarding matters such as class cancellations, meeting times, or room changes. In case of an emergency that closes the University for an extended period of time, we will continue/complete the course using Blackboard’s tools and communication capabilities.

Course Description and Methodology
This course will utilize case studies of design projects ranging in scale from a teakettle to a building to give students insight into the process by which architects work both individually and collaboratively to put disciplinary knowledge and expertise into practice. Cases will introduce a broad range of issues including design process, human factors, context, site, environment, culture, diversity, social justice, legal and regulatory issues, accessibility, technologies, materiality, sustainability, design disciplines, careers, and collaboration. Two design projects will give students the opportunity to practice aspects of the design process that are introduced in the case studies. Each project will break the design process into a series of steps that are authentic activities of architectural practice. At each step of the way, there will be an introduction to relevant scholarship. Students will work collaboratively on the projects, with some opportunities for individual demonstration of learning. Students will work in workshop mode during class time, with opportunities for peer and instructor critique. Students will also work both individually and collaboratively outside of class to advance and complete projects. The second project will build upon learning in the first project, addressing additional and increasingly complex issues, introducing new design technologies, and increasing expectations for levels of achievement.

Mies van der Rohe, Barcelona Chair, sketch
Course Readings
Students will use resources of the Architecture Library for research.

Supplies
The following are available from online and local sources including University of Maryland Bookstore, Amazon.com, Staples (Prince Georges Plaza), Plaza Artist Materials (Silver Spring, Rockville, Bethesda), and Utrecht Art Supplies (Washington, DC):
- Sketchbook (approximate size 5” x 8”)
- Graph paper
- Pens, pencils
- Utility knife
- Cork-backed metal ruler
- Cutting mat
- Tape measure
- Corrugated cardboard, 3’ x 4’ sheets (3)
- Scrap cardboard (refrigerator-size box plus smaller pieces) or 3 additional 3’ x 4’ sheets
- Flash drive

Learning Outcomes
As a result of participating in the course, students will be able to:
- identify the major questions and issues in the design of objects and environments for human use.
- demonstrate an understanding of basic terms, concepts, and approaches that architects employ in designing the human environment.
- communicate major ideas and issues raised by the course through effective visual, written and oral presentations.
- articulate how this course has invited them to think in new ways about their lives, the objects they utilize in daily life, the environments they inhabit, their role as users of designed environments, their place in an ecosystem, their responsibilities as an occupant of our planet, their potential future roles as clients, the possibility of a career in architecture issues central to the discipline of architecture.
- demonstrate an ability to select, critically evaluate, and apply relevant areas of scholarship to the design of an architectural design project.
- articulate the iterative processes required to bring about successful outcome of an architectural design project, from researching, programming, planning, modeling, exploring alternatives, evaluating, selecting, developing, presenting, to critiquing, testing, revising and improving.
- demonstrate an ability to collaborate in order to bring about a successful outcome.
- recognize how the architectural design process affects or is affected by political, legal, social, cultural, economic, and ethical dimensions.

Expectations of Students
Students are expected to attend all classes and participate in course activities. Students will work on both individual and collaborative projects during and outside of class time. Students will present work in class and participate in peer critiques. No assignments or work submittals will be accepted late unless there is an excused absence. Requests for excused absences are to be submitted in writing and in accordance with policies of the University of Maryland. Preparation for class includes completing assigned work. This will often involve scheduling collaborative work time with team members and working together to complete assigned work.
Course Grading & Evaluation

Project 1 30% total
- Precedent Study 3%
- Analysis 3%
- Schematic Design: Alternatives 4%
- Design Development: Chair Design 10%
- Presentation: Full Scale Model 5%
- Midterm Exam: Reflective Essay 5% (individual assignment)

Project 2 40% total
- Precedent Study 4%
- Analysis 4%
- Program 3%
- Schematic Design: Alternatives 6%
- Design Development: Sustainable Dorm Room Design 15%
- Presentation: Visual/Verbal – drawings and presentation notes 8%

Final Exam 30% total
- Portfolio 30% (individual assignment)

A+, A, A- denotes excellent mastery of the subject and outstanding scholarship.

B+, B, B- denotes good mastery of the subject and good scholarship.

C+, C, C- denotes acceptable mastery of the subject and the usual achievement expected.

D+, D, D- denotes borderline understanding of the subject. It denotes marginal performance, and it does not represent satisfactory progress toward a degree.

F - denotes failure to understand the subject and unsatisfactory performance.

I – denotes incomplete. The mark of I is an exceptional mark that is an instructor option. It is given only to a student whose work in a course has been qualitatively satisfactory, when, because of illness or other circumstances beyond the student's control, he or she has been unable to complete some small portion of the work of the course. In no case will the mark I be recorded for a student who has not completed the major portion of the work of the course.

A+ = 4.0
A  = 4.0
A-  = 3.7
B+  = 3.3
B   = 3.0
B-  = 2.7
C+  = 2.3
C   = 2.0
C-  = 1.7
D+  = 1.3
D   = 1.0
D-  = 0.7
F   = 0
Ownership of Student Work
Any design project, drawing or model that is submitted for academic credit is recognized by the University of Maryland and the School of Architecture, Planning, and Preservation to be the equivalent to a formal examination. Therefore, upon submission, all projects, drawings and/or models become the property of the School. Generally, University regulations require the professor to retain all final examinations for a period not less than one academic year. However, in practice, projects submitted to the school are usually returned to the individual student for inclusion in their academic portfolio. The School of Architecture, Planning, and Preservation does reserve the right to retain certain projects for use in publicity, display, or other official uses. In addition, projects may be retained for archival reasons or in cases of grade disputes. In all cases, projects will be made available to the authors for documentation purposes.

Attendance Policy
- Students are expected to attend all class meetings.
- It is the policy of the University to excuse the absences of students that result from the following causes: illness of the student, or illness of a dependent as defined by Board of Regents policy on family and medical leave; religious observance (where the nature of the observance prevents the student from being present during the class period); participation in university activities at the request of University authorities; and compelling circumstance beyond the student's control. Students claiming excused absence must apply in writing and furnish documentary support for their assertion that absence resulted from one of these causes. (http://www.testudo.umd.edu/soc/atedasse.html) Any excused absence should be documented by an email exchange in which the instructor agrees that your absence is excused.
- If you will have to miss class in order to observe a religious holiday, notify the instructor at the beginning of the course, by email. If you must miss class due to any other reason, please discuss in advance with the instructor by email to find out whether the absence will be considered excused.
- In the event of absence due to illness, injury, or emergency, please communicate with the instructor as soon as possible thereafter. It is University policy to excuse class absences that result from a student's own illness. In May, the University Senate passed and President Loh signed a new policy for granting excused absences, which can be found at: http://www.president.umd.edu/policies/v100g.html. Under the policy, the University will accept as an excused absence a self-signed note from a student who has missed a single lecture, recitation, or laboratory, attesting to the date of the illness. The note must also contain an acknowledgement by the student that the information is true and correct and that providing false information is prohibited under Code of Student Conduct. The student is also obligated to make a reasonable attempt to inform the instructor of his/her illness in advance. The requirement for accepting a self-signed note does not apply to Major Scheduled Grading Events. In this course, the Major Scheduled Grading Events are the Mid-Term Review and Final Review.
- A student who experiences a prolonged absence or an illness preventing attendance at a major Scheduled Grading Event is required to provide written documentation of the illness from the Health Center or an outside health care provider, verifying the dates of treatment and the time period during which the student was unable to meet academic responsibilities.
- Non-consecutive, medically necessitated absences from more than a single lecture require written documentation from the Health Center or an outside health care provider, verifying the dates of treatment.
- If the campus is closed for inclement weather, class will be canceled, and due dates revised as required.
Academic Integrity
Excerpt from the Undergraduate Catalog: “In 2002, the University adopted an honor pledge in which students are asked to write out and sign the pledge on major assignments and exams, as designated by the instructor. The Honor Pledge is designed to encourage instructors and students to reflect upon the University’s core institutional value of academic integrity. Professors who invite students to sign the Honor Pledge signify that there is an ethical component to teaching and learning. Students who write by hand and sign the Pledge affirm a sense of pride in the integrity of their work. The Pledge states:

"I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination."

For more information regarding the Code of Academic Integrity, the Honor Pledge, or the Student Honor Council please refer to www.shc.umd.edu or contact the Office of Student Conduct.

In this course, learning to work collaboratively is one of the learning outcomes, so much of the course work will be undertaken in teams. In the collaborative projects, classmates are expected to assist one another, therefore this collaboration is considered authorized assistance. Some course work, however, are individual, and in these cases, assistance by classmates or others is not authorized. Students are expected to complete individual work by themselves with no assistance. The Midterm Exam (Reflective Essay) and Final Exam (Portfolio) are individual projects.

Class lectures and other materials are copyrighted and may not be reproduced for anything other than personal use without written permission from the instructor.

Academic/Studio Culture Policy
The University of Maryland School of Architecture, Planning and Preservation Architecture Program values design studio education and encourages an academic environment conducive to learning made through thoughtful connections between studio and non-studio courses. The design studio, and the studio education model is the foundation of the curriculum. Studio learning encourages critical discourse based on collaboration, creativity, and learning through making. A healthy academic/studio culture engenders an environment where students and faculty come together to ask questions and make proposals, innovate with today’s knowledge to address tomorrow’s challenges. Studio education provides opportunities for students to develop their critical thinking skills and design process. The design studio offers both an analytic and a synthetic form of education, where critical learning becomes the foundation for developing an understanding of architecture: to improve the quality of the built and natural environments. The academic/studio culture must support and develop respect for the diverse backgrounds of the faculty and students’ educational and professional experiences, and approaches to design.

Please review the complete Academic/Studio Culture Policy provided at: http://www.arch.umd.edu/architecture/resources/

ADA Compliance
In compliance with section 504 of the Americans with Disabilities Act (ADA), the University of Maryland is committed to ensure that “no otherwise qualified individual with a disability... shall, solely by reason of disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity...” If you feel that you are a student who may need academic accommodations due to a disability, then you should immediately register with the office of Disability Support Services (DSS) at 0126 Shoemaker Hall, 301.314.7682. DSS is the University of Maryland office that authorizes special accommodations for students with disabilities.
# Course Outline
Subject to change – changes will be announced on ELMS Blackboard, check Blackboard regularly.

<table>
<thead>
<tr>
<th>Week</th>
<th>Day</th>
<th>In Class</th>
<th>Homework Assigned</th>
<th>Materials Required/ Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TH 8/30</td>
<td>Intro to course, design process, Case Study #1, Project #1: Chair</td>
<td>Purchase supplies (due 9/25)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>TU 9/4</td>
<td>Chair Precedent Research: scholarship + criteria</td>
<td>Chair Precedent: research + write</td>
<td>Bring flash drive, sketchbook, pen/pencil to class</td>
</tr>
<tr>
<td></td>
<td>TH 9/6</td>
<td>Chair Precedent Research: workshop</td>
<td>Chair Precedent: create PowerPoint presentation</td>
<td>Bring precedent research (images + notes) to class</td>
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<tr>
<td></td>
<td></td>
<td><em>Guest speakers: Librarians Patricia Cossard + Terry Owen</em></td>
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<tr>
<td>3</td>
<td>TU 9/11</td>
<td>Chair Precedent Research: presentation</td>
<td>Chair Analysis: select chair, photograph and measure</td>
<td>Precedent PowerPoint due 2:00pm</td>
</tr>
<tr>
<td></td>
<td>TH 9/13</td>
<td>Chair Analysis: scholarship + criteria</td>
<td>Chair Analysis: draw + write</td>
<td>Bring chair photos + measurements to class</td>
</tr>
<tr>
<td>4</td>
<td>TU 9/18</td>
<td>Chair Analysis: workshop</td>
<td>Chair Analysis: finalize drawings, photos, + text</td>
<td>Bring in-progress analysis to class</td>
</tr>
<tr>
<td></td>
<td>TH 9/20</td>
<td>Chair Analysis: presentation</td>
<td>Chair Schematic Design: sketch design concepts</td>
<td>Analysis Drawings due 2:00pm</td>
</tr>
<tr>
<td>5</td>
<td>TU 9/25</td>
<td>Chair Schematic Design: scholarship + criteria</td>
<td>Chair Schematic Design: build 3 study models of alternative design concepts</td>
<td>Bring scrap cardboard, utility knife, cutting mat, steel ruler, + pencil to class</td>
</tr>
<tr>
<td></td>
<td>TH 9/27</td>
<td>Chair Schematic Design: workshop</td>
<td>Chair Design Development: select design concept for development, plan full-scale model</td>
<td>Bring cardboard (either 3 new sheets or refrigerator-size box), utility knife, cutting mat, steel ruler, + pencil to class</td>
</tr>
<tr>
<td>6</td>
<td>TU 10/2</td>
<td>Chair Design Development: scholarship + criteria</td>
<td>Chair Design Development: complete full-scale study model</td>
<td>Bring in-progress study model to class</td>
</tr>
<tr>
<td></td>
<td>TH 10/4</td>
<td>Chair Design Development: workshop</td>
<td>Chair Design Development: begin final full-scale model</td>
<td>Study Model due 2:00pm, Bring 3 sheets new cardboard, utility knife, cutting mat, steel ruler, + pencil to class</td>
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<td></td>
<td></td>
<td><em>Guest speaker: Professor Powell Draper, Guest Critic: Graduate TA Andrew Fitch</em></td>
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<tr>
<td>7</td>
<td>TU 10/9</td>
<td>Chair Design Development: workshop</td>
<td>Chair Design Development: continue work on final model</td>
<td>Bring in-progress final model to class</td>
</tr>
<tr>
<td></td>
<td>TH 10/11</td>
<td>Chair Design Development: workshop</td>
<td>Chair Design Development: complete final model</td>
<td>Bring in-progress final model to class</td>
</tr>
<tr>
<td>8</td>
<td>TU 10/16</td>
<td>Chair Presentation</td>
<td>Final Model due 2:00pm</td>
<td></td>
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<tr>
<td></td>
<td>TH 10/18</td>
<td>Chair Presentation</td>
<td>Take-Home Midterm Exam</td>
<td></td>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Task #1</td>
<td>Task #2</td>
<td>Task #3</td>
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<tr>
<td>9</td>
<td>TU 10/23</td>
<td>Introduction to Case Study #2, Project #2: Dorm</td>
<td>Precedent Research: research + writing</td>
<td>Midterm Exam due 2:00pm</td>
</tr>
<tr>
<td></td>
<td>TH 10/25</td>
<td>Dorm Precedent Research: review scholarship, develop criteria + workshop</td>
<td>Dorm Precedent: create PowerPoint Presentation</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>TU 10/30</td>
<td>Dorm Precedent Research: presentation</td>
<td>Dorm Analysis: photograph, sketch + measure your own dorm room</td>
<td>Precedent Powerpoint due 2:00pm</td>
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<tr>
<td></td>
<td>TH 11/1</td>
<td>Dorm Analysis: scholarship, criteria + workshop</td>
<td>Dorm Analysis: work on digital model, write</td>
<td>Bring dorm room photos, sketches + measurements to class, bring flash drive</td>
</tr>
<tr>
<td>11</td>
<td>TU 11/6</td>
<td>Dorm Analysis: workshop</td>
<td>Dorm Analysis: finalize model, print drawings, finalize text</td>
<td>Bring dorm room model to class on flash drive</td>
</tr>
<tr>
<td></td>
<td>TH 11/8</td>
<td>Dorm Analysis: pin-up</td>
<td>Dorm Program: write notes on your room - what works well, what does not, what is missing</td>
<td>Bring printed drawings to class</td>
</tr>
<tr>
<td>12</td>
<td>TU 11/13</td>
<td>Dorm Program: scholarship + criteria</td>
<td>Dorm Program: write</td>
<td>Bring notes to class</td>
</tr>
<tr>
<td></td>
<td>TH 11/15</td>
<td>Dorm Program: discussion</td>
<td>Dorm Schematic Design: sketch 3 alternative design concepts</td>
<td>Bring written program to class</td>
</tr>
<tr>
<td>13</td>
<td>TU 11/20</td>
<td>Dorm Schematic Design: workshop</td>
<td>Dorm Design Development: select design concept for development, begin digital model</td>
<td>Bring sketches to class</td>
</tr>
<tr>
<td></td>
<td>TH 11/22</td>
<td>Thanksgiving</td>
<td>Enjoy the holiday</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>TU 11/27</td>
<td>Dorm Design Development: workshop</td>
<td>Dorm Design Development: continue work on model</td>
<td>Bring digital model to class on flash drive</td>
</tr>
<tr>
<td></td>
<td>TH 11/29</td>
<td>Dorm Design Development: workshop</td>
<td>Dorm Design Development: continue work on model</td>
<td>Bring digital model to class on flash drive</td>
</tr>
<tr>
<td>15</td>
<td>TU 12/4</td>
<td>Dorm Design Development: workshop</td>
<td>Dorm Design Development: continue work on model, create drawings, make a PowerPoint presentation</td>
<td>Bring digital model to class on flash drive</td>
</tr>
<tr>
<td></td>
<td>TH 12/6</td>
<td>Dorm Design Development: presentation</td>
<td>Bring PowerPoint to class on flash drive</td>
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</tr>
<tr>
<td>16</td>
<td>TU 12/11</td>
<td>Dorm Design Development: presentation</td>
<td>Final Exam (take-home): create a portfolio illustrating the design process and products of Projects #1 + #2 (individual project)</td>
<td>Bring PowerPoint to class on flash drive</td>
</tr>
<tr>
<td>17</td>
<td>M 12/17</td>
<td>Final Exam (turn in take-home exam at exam time)</td>
<td>Enjoy the winter break</td>
<td>Portfolio due 12:30pm in ARC 1246 (Simon office)</td>
</tr>
</tbody>
</table>
Learning Assistance
If you are experiencing difficulties in keeping up with the academic demands of this course, contact the Learning Assistance Service, 2202 Shoemaker Building, 301-314-7693. Their educational counselors can help with time management, reading, math learning skills, note-taking and exam preparation skills. All their services are free to UMD students.