Course Description
This course is an introduction to Architectural Model Making, its tools, different materials to create different types of models. We will use a classic 20th century residence as our vehicle to explore model making.

- Robie House (1909) Frank Lloyd Wright
- Schroder House (1924-5) Gerrit Rietveld
- Maison La Roche-Jeanneret (1925) Le Corbusier
- Pavilion de Eprit nouveau (1925) Le Corbusier
- Lovell Beach House (1926) Rudolph Schindler
- Villa Stein (1927) Le Corbusier
- Weissenhof House (1927) Le Corbusier
- Wolf House (1927) Ludwig Mies van der Rohe
- Lange House (1928) Ludwig Mies van der Rohe
- Lovell Health House (1927-29) Richard Neutra
- E1027 (1924-9) Eileen Gray
- Tugendhat House (1928-30) Ludwig Mies van der Rohe
- Villa Savoye (1931) Le Corbusier
- Jacobs House (1936) Frank Lloyd Wright
- Eames House (1949) Charles & Ray Eames
- Farnsworth House (1951) Ludwig Mies van der Rohe
- Hanselman House (1967) Michael Graves
- Koshimo House (1979-81 & 83-4) Tadao Ando
- Bordeaux House (1998) OMA

You will be asked to come up with major architec tonic moves that will bring the house into a contemporary program of your imagination. Research the architect and the building; think about what you feel is missing for the 21st century. You may write your own program.

Prerequisites: None

Course Objective: (Student learning outcomes)
Upon completion of this course, students should be able to understand how to work with models within their design process through the development of study models and a final working presentation model. Students should be able to:

1) Use different materials to convey the intent of the design
2) Understand how to use different techniques, tools, adhesives to build a model.
3) Create different types of models (conceptual, massing, presentation) and at different scales.
Section 10027 Monday & Wednesday:  5:00 - 7:40 p.m.   ART  09

Grade Type: Letter Grade or Credit/No credit option

Instructor: Richard A. Smith. AIA
Off campus Office:  1023 Shoreline Blvd. Mountain View, CA  94043
Phone: (650) 428-2507
E-mail: dick@casarch.com or richard_smith@westvalley.edu
Instructor’s website: http://instruct.westvalley.edu/dsmith/
Office Hours: by appointment in Mountain View.

Assistant Instructors: Tri Vu, BA Architecture University of California Berkeley
Nathan Klein, BA Architecture University of Colorado

Textbook and Required Reading: There are no required textbooks and readings that will assist you will be posted on angel in a pdf format but the following book might be helpful for you:

Optional textbooks:

Assessment: Students will be graded based upon the following categories of assignments:

1) Completion of the assigned drawings and models
2) Craftsmanship
3) Class attendance and participation within the discussions and reviews

Tool List: (Note you will not be allowed to work in the classroom without a cutting mat)

Primary Items (Must have)
1. X-acto knife and #11 blades (Primary knife)
2. Mat knife (used for thicker cuts)
3. Steel ruler with non-lip cork backing (avoid aluminum rulers will dull knife blades) (Primary cutting edge)
4. White Glue (makes sure clear drying) (primary adhesive)
5. Hot glue gun (for quick assemble and hard to glue materials such as metal) Note: very messy
6. Small metal or plastic triangle (used to square and level model parts)
7. Basic drafting tools (scale, small adjustable triangle, pencil) for layout lines
8. Scissors (used for editing cuts)
9. Vinyl cutting mat (Green or clear 18 x 24 is my favorite size but comes smaller and larger)
10. Sand paper (used to level and remove burrs from cuts)

Supplemental Primary (it would be nice to have)
1. Metal triangle (aluminum or plastic with steel edges) (right angle cuts)
2. Plastic model glue (adhesive for Plexiglas)
3. Drafting Tape and double sided tape
4. Tweezers (used for delicate work)
5. Dividers (for hard to make measurements)
6. Push pins (used for reinforcement while glue is setting)
7. Wood chopper
8. Glue Syringe
9. Super glue (for metal or plastic).
10. Tracing paper.
Expanded list (As you get more advanced)

1. Needle nose pliers (used to delicate work)
2. Canned compressed air (used for cleaning model)
3. Model saw and Miter box (used for cuts on blocks and rods)
4. Wire cutters (for cutting pins and wires)
5. Soldering gun or Soldering iron (for soldering wire)
6. Small Vice or Third hand (for holding parts while drying)
7. Acu-Arch (for curves)
8. Mini-clamps.
9. Electric drill and bits
10. Dremel scroll saw (for more complicated model making)

Material list (Options)

1. Grey Chipboard—available in two or four ply thickness
   Attributes: Inexpensive, cuts easy (2 ply), spans distances moderately well, Four ply is hard to cut, finish is rougher, very architectural

2. Corrugated cardboard—1/8" thick
   Attributes: Inexpensive, cuts easy, rough finish, spans distances well, good base material, edges a problem

3. Foam Core – 1/16", 1/8", 3/16", ¼" thick
   Attributes: Finished in appearance, relatively expensive, Easy to cut, but may warp over time, Suitable for large spans, edges a problem, good for model bases

4. Gator board – similar to foam core
   Attributes: rigid and difficult to cut, will not warp

5. Museum board (Strathmore) – available in two, four, five and six ply thickness
   Attributes: Finished in appearance, easy to cut, great edges (color throughout), thinner plys may not be suitable for large spans

6. Butter board – 2 ply
   Attributes: Slight yellow or buff in appearance with color throughout, will bend when exposed to steam and hold its shape. (Does not require scoring to form curved surfaces).

7. Poster board or Railroad board—single ply thickness
   Attributes: Inexpensive, good finish, spans poorly, easy to cut

   Attributes: Beautiful, Very Architectural, expensive, slow to cut but gives great edges, Final model quality.

If you continue with your architectural career to make models, you will need an inexpensive portfolio/large archive storage box to store your paper and wood supplies for future use.

Locations to purchase materials and tools:
D&J hobby – Campbell 96 N. San Tomas Aquino Road Campbell, CA 95008 (408) 379-1696 phone
M-W 10am-8pm, Th-Fr 10am-9pm, Sat 10am-7pm, Sun 11am-7pm

University Art - San Jose 456 Meridian Avenue San Jose, CA 95126 (408) 297-4707 phone
M-Th 9:30am-7pm, Fr-Sat 9:30am-5:30pm, Sun 11am-5pm

University Art - Palo Alto 267 Hamilton Ave. Palo Alto, CA 94301 (650) 328-3500 phone
M-W 9:30am-5:30pm, Th 9:30am-7pm, Fr 9:30am-5:30pm, Sat 11am-5:30pm, Sun 11am-4pm

Accent Arts – Palo Alto 392 California Avenue Palo Alto, CA 94301 (650) 424-1044 phone
M-F 10am-8:00pm, Sat 10am – 5:30pm, Sun 12noon – 6pm

Dataprint: (Internet) http://www.dataprint.com
Misterart: (Internet) http://www.misterart.com
Dick Blick: (Internet) http://www.dickblick.com
Structure of the Classroom hours
The class structure will vary depending upon what is trying to be accomplished during the session but I will try to generally follow the pattern below;
5:00 pm Arrival and set up of your workstation
5:15pm Class wide reviews of the work accomplished
5:30pm Demonstrations
5:45pm Individual Work and desk assistance
7:40pm Clean-up and End of Class

Attendance:
• Attendance at all classes is required.
• If an absence is necessary, the student is responsible reviewing the angle website and contacting the instructor or another student to determine missed announcements and course information.
• In a student-initiated drop, the student is responsible for contacting Admissions and Records for formal withdrawal.

<table>
<thead>
<tr>
<th>Week One</th>
<th>Monday June 6, 2011</th>
<th>Wednesday June 8, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topics:</strong></td>
<td>Introduction to the class</td>
<td>Bring to class: drawing pad or sketchbook (white or newsprint) and 11 x 17 piece of form core</td>
</tr>
<tr>
<td></td>
<td>Sketching and thinking; exploring the architectural idea</td>
<td><strong>Topics:</strong> Sketch Model and the translation of your ideas into architectural form</td>
</tr>
<tr>
<td><strong>Demonstration:</strong></td>
<td>Common tools and materials for model making and how to stay organized</td>
<td>What is a Study model and its purpose</td>
</tr>
<tr>
<td></td>
<td>How drawing and sketch modeling should inform your design work</td>
<td>How drawing and sketch modeling should inform your design work</td>
</tr>
<tr>
<td><strong>Class time:</strong></td>
<td>Selection of Project</td>
<td><strong>Demonstration:</strong> Demonstration of basic cutting techniques including which type of knife to use for which material along with quick gluing and taping</td>
</tr>
<tr>
<td><strong>Outside of Class time:</strong></td>
<td>Research your architect and project and find photographs to supplement drawings provided</td>
<td><strong>Class time:</strong> Continue Sketching and work towards starting your sketch model 1/16”=1'-0”</td>
</tr>
<tr>
<td></td>
<td>Start sketching and develop your ideas</td>
<td>Glue site plan to base</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Outside of Class time:</strong> Start your sketch model</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week Two</th>
<th>Monday June 13, 2011</th>
<th>Wednesday June 15, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bring to class:</strong></td>
<td>model making materials (chip board) and tools to class including your cutting surface</td>
<td>Bring to class: Completed study model and model making tools/materials</td>
</tr>
<tr>
<td></td>
<td>Different types of corners (butt, mitered, folded and folded with v-groove, butt with paper cover)</td>
<td><strong>Demonstration:</strong> Gluing, cleaning and sanding</td>
</tr>
<tr>
<td></td>
<td><strong>Class time:</strong> Work on Study models 1/16&quot;= 1'-0”</td>
<td>How to make curving walls, cylinders and domes</td>
</tr>
<tr>
<td></td>
<td><strong>Outside of Class time:</strong> Complete 1/16&quot;= 1'-0” model</td>
<td><strong>Class time:</strong> Review completed study models</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Start 1/4&quot; or 3/16&quot; = 1'-0” study model #2</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Outside of Class time:</strong> Work on study model #2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week Three</th>
<th>Monday June 20, 2011</th>
<th>Wednesday June 22, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bring to class:</strong></td>
<td>Model making tools/materials and in progress study model 2</td>
<td>Bring to class: Model making tools/materials and in progress study model 2</td>
</tr>
<tr>
<td><strong>Demonstration:</strong></td>
<td>Different methods for making windows and doors along with working with plastics</td>
<td><strong>Demonstration:</strong> How to connect roofs to walls</td>
</tr>
<tr>
<td></td>
<td><strong>Class time:</strong> Work on study model #2</td>
<td>How to make stairways</td>
</tr>
<tr>
<td></td>
<td><strong>Outside of Class time:</strong> Complete study model #2</td>
<td><strong>Class time:</strong> Review 1/8” or 3/16” study model</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Outside of Class time:</strong> Decide on materials for final model.</td>
</tr>
<tr>
<td>Week Four</td>
<td>Monday June 27, 2011</td>
<td>Wednesday June 29, 2011</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Bring to class:</strong></td>
<td>Materials to make site model and model making tools</td>
<td>Bring to class: Completed site model</td>
</tr>
<tr>
<td><strong>Demonstration:</strong></td>
<td>How to make contours and put together a site model and how to fit your model into the site</td>
<td>Demonstration: TBD</td>
</tr>
<tr>
<td><strong>Class time:</strong></td>
<td>Work on site contour model and base</td>
<td>Class time: Start main model</td>
</tr>
<tr>
<td><strong>Outside of Class time:</strong></td>
<td>Work on site contour model and base</td>
<td>Outside of Class time: Work on main model</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week Five</th>
<th>Tuesday July 5, 2011</th>
<th>Wednesday July 6, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bring to class:</strong></td>
<td>Progress final model</td>
<td>Bring to class: Progress final model</td>
</tr>
<tr>
<td><strong>Demonstration:</strong></td>
<td>The appropriate degree of abstraction</td>
<td>Demonstration: How to remove and replace model pieces i.e. how to make last minute changes</td>
</tr>
<tr>
<td></td>
<td>Adding trees and people for scale</td>
<td>Class time: Work on main model</td>
</tr>
<tr>
<td></td>
<td>How to make people</td>
<td>Outside of Class time: Work on main model</td>
</tr>
<tr>
<td></td>
<td>How to make trees and how to set into model</td>
<td></td>
</tr>
<tr>
<td><strong>Class time:</strong></td>
<td>Work on main model</td>
<td></td>
</tr>
<tr>
<td><strong>Outside of Class time:</strong></td>
<td>Work on main model</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week Six</th>
<th>Monday July 11, 2011</th>
<th>Wednesday July 13, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bring to class:</strong></td>
<td>Progress final model</td>
<td>Bring to class: All models and early sketches</td>
</tr>
<tr>
<td><strong>Demonstration:</strong></td>
<td>Adding images of people/ background into the photograph of your model</td>
<td>Demonstration: Photographing your model and setting up a photo-booth</td>
</tr>
<tr>
<td></td>
<td>How to do simple adjustment your images.</td>
<td>Class time: Review models and celebrate what has been accomplished this summer</td>
</tr>
<tr>
<td><strong>Class time:</strong></td>
<td>Work on final model</td>
<td></td>
</tr>
<tr>
<td><strong>Outside of Class time:</strong></td>
<td>Finish final model</td>
<td></td>
</tr>
</tbody>
</table>

**Incomplete Grade:** IncomPLEtes will be given only upon the student’s inability to complete the course and only upon prior completion of at least 75% of the required course material.

**Calendar/Topics:** Each class is organized in a lecture format and/or site visit.

**Syllabus Disclaimer Statement:** The instructor may make changes to the syllabus during the semester. It is the student’s responsibility to stay informed of these changes. Students may contact the instructor before/after class, time permitting. Students may also wish to have a study partner whom they can contact if they miss class.

**Disability Statement:** West Valley College makes reasonable accommodations for persons with documented disabilities. Students should notify DESP (Disability & Educational Support Program) located in the Learning Services building (408-741-2010) of any special needs.

**Unlawful Discrimination/Sexual Harassment:** If you have a complaint or someone has shared information with you as a student or employee that is unlawful discrimination or sexual harassment, contact the Associate Vice Chancellor of Human Resources at West Valley-Mission Community College District, Human Resources Department, (408-741-2060).

**Student Attendance Policy:** (from the WVC Catalog) Students are expected to attend all sessions of each class. Instructors may drop students from the class if they fail to attend the first class meeting, or when accumulated unexcused hours of absences exceed ten percent of the total number of hours the class meets during the semester. Moreover, an instructor may drop from the class any student who fails to attend at least one class session during the first three weeks of instruction.

**Policy on Academic Dishonesty:** It is expected that all work done for a grade be the sole work of the student receiving the grade. That is to say that cheating is a form of academic misconduct that will not be tolerated, in any form, see WVC Catalog, or see the Instructor if there is any question regarding this standard.