Special Topics in Interior Design allow specialized or in-depth study of a subject supplementing the interior design curriculum. Student interest and instructor expertise help determine the topic. This course will focus on using Google SketchUp 7.0, a powerful and intuitively easy to use 3D modeling and visualization program.

COURSE DESCRIPTION
This course is structured to introduce interior design students to fundamental skills for SketchUp, and to provide those students with prior knowledge of the program a means of continuing to learn new and increasingly effective methods of working with the program. The structure of the course is an informal workshop atmosphere where students learn by doing and work, as much as possible, at an independent pace. Software training will be offered that shows how SketchUp can be used to enhance the effectiveness of presentations, both as a stand-alone or supplementary presentation tool, and as a tool for conceptualizing. Others software programs, such as Photoshop CS3 will also be used to enhance the student’s communication of design solutions and concepts, providing a means for enhancing the visual impact of the 3D model, or to aid in the presentation of images. Basic digital concepts and scanning will also be covered.

Outcomes:
Upon completion of the course, students should be able to:
1. Effectively use SketchUp to conceptualize and present ideas for current interior design studio classes, or portfolio.
2. Manage digital files for archiving and greater efficiency.
3. Create multiple wireframe, shaded, and rendered views of an interior space.
4. Create 3D models in SketchUp, and enhance them for both electronic and manual presentation using a variety of manual and electronic media.
5. Use Photoshop CS3 to improve their visual communication throughout the design process, and in creating their individual portfolio/presentations.

REQUIRED TEXTS
Sketchup Tutorial Videos (describes basic functionality of program)
http://sketchup.google.com/training/videos.html

Google Sketchup Users’ Guide (this is the online help database for Sketchup)
http://download.sketchup.com/sketchuphelp/gsu6_win/gsuwin.html

Access and review the video tutorials on your own time as noted in the course schedule. These are invaluable lessons, full of tips for speeding up your production, and a good way of getting help on how to perform specific functions.

REQUIRED FOR EVERY CLASS SESSION:
Class notebook, minimum 256MB USB Flash Drive or similar device, in-progress work, and completed assignments.
COURSE REQUIREMENTS AND GRADING
1. **Attendance**
   Attendance and active participation is required. More than three unexcused absences will result in a failing grade. **Contact me in advance if you cannot attend.**

2. **Assignments**
   As much as possible, we will limit the assigned work to projects that you are creating in other studio courses, and to what we can accomplish in class. It’s important that you be here every week so that we can work on developing the best presentations possible. If you do not have any other studio class this quarter, we will work together to choose a project you’ve created already and develop it so that it enhances your portfolio of work. Objectives are largely individual.

3. **Notebook:**
   A notebook will be required to keep all assignments, lecture notes, etc. Students are expected to keep a complete, organized file of all class handouts and assignments.

4. **Assessment:**
   **Completion of all assignments is required to pass this course.** However, each project will be assessed according to expectations for individual students, based on their expertise, their design project requirements, and the spaces they are designing. Essentially, demonstrate that you are making continuing progress in your skills, regardless of how elaborate your execution may be. Regular consultations with the instructor will serve as the student’s source of evaluation, assessments, and feedback throughout the term.

   **Assessment distribution:**
   - Attendance and class participation: 40%
   - Assignments completed and submitted: 60%

INSTRUCTOR’S EXPECTATIONS:

Your conscientious attendance and on-time arrival. (If you are unable to attend class or miss part of a class, speak to your fellow students, borrow notes, etc. to find out what you missed.)

Your involvement and attention in class lectures and discussions is required to pass this class.

RESPONSIVENESS: Please let me know if you have difficulty understanding an assignment. If you have specific concerns with the expectations of the class, your work, or the method of instruction, bring them to my attention. I will do my best to make sure you understand the requirements of the class.

I expect students to contact me directly in a timely manner to cover personal issues relating to the course. If you have questions about how you are doing in class, make an appointment to talk with me. Do not expect me to talk about this before, during, or immediately after class.

SPECIAL NEEDS:

**ME:** I suffer from an “invisible” disability: hearing loss. I wear hearing aids and am almost entirely deaf in my right ear. Please speak slowly and clearly, projecting you voice to the front of the class. When you have something to say, please raise your hand so that I can see who is talking, and try to keep conversations to one person at a time.

**YOU:** If you require accommodation based on a documented disability, emergency medical information to share, or need special arrangements in case of emergency evacuation, please make an appointment with me as soon as possible.

If you would like to inquire about becoming a DSS student you may call 564-2498 or go in person to the DSS (Disability Support Services) reception are in the Student Services Building.
Refer to the handout Student Procedures and Expectations, Arts and Humanities Division regarding eligibility for accommodation.

DIVISION POLICIES:
Refer to the handout Student Procedures and Expectations, Arts and Humanities Division for additional information, including requirements for special needs. With regard to Academic Honesty, note that for studio courses ALL WORK MUST be performed by the individual.

COURSE SCHEDULE
CLASS 1
Class Organization
- Introductions
- Syllabus & Expectations
- Class Files
Sketchup: The Tool … What it is, and what it isn’t
- 3D Visualization vs. CAD, BIM & Solid Modeling Programs
- Limitations and Strengths of Sketchup (lines, faces, and components)
- The Inference Engine
Navigating the Interface
- Menu Options
- Toolbars and Buttons
- Special Control Windows
- The Value Control Box (VCB)
- The Model View Window
  o Getting used to working in a 3D environment all the time…
  o Projection Modes
  o Drawing Axes
  o Standard Views
  o Navigation Tools ( Pan / Zoom / Window / Extents / Position / Look Around / Walk )
  o Visual Cues ( Profile Lines / Pattern Lines / Face Orientation )
  o Saving Scenes and Organizing Scene Tabs
  o Cutting Sections
Basic Drawing Skills in Sketchup
- Important Skills
  o Using snap points
  o How to keep things orthogonal when drawing (or, the Importance of the SHIFT Key)
  o Why and how to use keyed input
- Drawing Lines
- Drawing Arcs
- Drawing Freehand
- Drawing Plane Figures
- Using the Tape Measure Tool to create construction guides and check measurements

HOMEWORK (Due Day 2):
► Watch Tutorial Videos
  Experimentation: Draw Something Cool in 3D
CLASS 2
Review Homework Experimentation – Question & Answer
Modification Tools
- Move / Copy (the importance of the “Control” key)
- Rotate / Rotate Copy
- Extrude
- Scale
- Follow-me
- Smooth
Section Tool
- Placing Sections
- Turning Sections On and Off
- Changing Section Properties
Materials
- Using the Paint Bucket
- The Default Material…A Special Case
- The Material Library
- Changing Material Properties
  o Color
  o Texture
  o Scale
- Creating Custom Materials
- Funky Material Tricks
  o Changing Material by Face Orientation
  o Differential Transparency by Face Orientation
  o Creating a Backdrop
  o Adding Realistic Views to Interior Spaces Without Modeling Anything
Grouping Elements
Components
- What is a Component?
- Using the Component Library
- Creating Your Own Components
- Nested Components

HOMEWORK (Due Day 3):
► Make a component of yourself
► Bring to Next Class: Drawings or AutoCAD files of project to model for this class
CLASS 3
Notation
- Dimensions
- Leader Notes
- Changing Dimension and Note Properties
- 3D Text (Version 6 Only)
Creating Complex Geometry in Sketchup
Photomatch
- Matching the view to a photograph
- Matching a photograph to the view
Intersection
- How to Intersect Simple Geometry to Create Complex Shapes
The Sandbox
- Creating Mesh Surfaces from Contours or Points
- Creating Mesh Surfaces from Scratch
- Smoove
- Editing Mesh Points and Flipping Edges – Add Detail
- Stamping Other Shapes Into a Mesh
- Draping a Mesh Over Other Stuff

HOMEWORK (Due Day 5):
► Make an irregular shape out of three intersecting curved planes.
  • Make sure all edges are “smoothed”
► Make a sphere
  • Take “bites” out of the sphere using “intersect”
  • No holes may pass entirely through the sphere
► Create an irregular surface using the Sandbox tools
  • Use the “stamp” tool to raise and lower areas of the surface
  • Use the “drape” tool to project lines onto the surface
  • Paint different areas of the surface with different materials
► Start Modeling Final Project

CLASS 4
Scenes / Views
- Saving a Scene
- Navigation and Animation Using Scene Tabs
- Organizing Scenes
- Changing Scene Properties
- Shadows
- Render Settings ( X-Ray / Wireframe / Hidden Line / Shaded / Shaded with Textures )
Styles
Animation

HOMEWORK (Due Day 6):
► Create a 10-scene movie of a simple model

CLASS 5
Modeling Tips and Tricks
- Never assume that the inference engine is doing what you want it to do
- Minimizing lines and faces
- Don’t be afraid to erase
- Using component methodology as you go
- Using other modeling software to create things Sketchup has trouble modeling (AutoCAD, etc.)
- Using section planes during the modeling process (including nesting of section planes)
- Don’t model more than you have to
- Maintain face orientation
- Layer usage: everything that needs different visibility control gets its own layer, no exceptions

Work in Class

CLASS 6
Presentation techniques
Using Photoshop with Sketchup
- Sketchup needs help to produce good printed output
- Photoshop techniques: the Dennis Method
- Photoshop techniques: Artistic Filtering

Using Layout
- Introduction to Layout
- Page setup
- Scaled output
- Taking Layout output back to Photoshop

Work in Class

HOMEWORK (Due Day 8):
- Create two rendered views from the sample model using Styles and Photoshop

CLASS 7 - 12
Work in Class – Desk Crits & Help Sessions

CLASS 13 (LAST DAY)
FINAL PROJECTS DUE