## COURSE DETAILS

ARCHST 2230 Design Communication • Credit Hours 3
Instructor: So-Yeon Yoon, PhD, YoonS@missouri.edu, 573-882-7542 (T)
Meeting Times: Tuesdays and Thursdays 8:30 a.m. to 10:50 a.m.
Location: 139 Stanley
Office Hours: Mondays & Wednesdays 11:00 a.m. to 1:00 p.m.

## I. DESCRIPTIVE INFORMATION

ARCHST2230 Design Communication (catalog description): Studio course in techniques and conventions of graphic communication as aids in the design process.

**Course Goal and Emphasis**

ARCHST 2230 introduces design visualization and presentation techniques using both traditional and digital media. It demonstrates underlying concepts and techniques of computer applications for design communication and further strengthen skills in using traditional media gained from previous courses. A series of exercises and projects provide pre-architecture and interior design students with good understanding of professional visualization/representation concepts as well as techniques. Exercises and projects follow a hands-on approach involving both traditional and digital media techniques such as hand drawings, 3-dimensional computer modeling, rendering and animations. Using small-scale artifacts and moderate scale structures, buildings or interiors as examples, students will acquaint themselves with various conventions, media, and techniques for design communication.

**Course Objectives**

• To develop literacy in design visualization and communication
• To develop professional competence to represent design artifacts and structures in both two and three-dimensions.
• To develop effective visual presentation techniques of design ideas in conventional media and computational media.

**Course Contents**

This course will broadly cover the following topics:

1. Conceptual/Schematic computer aided modeling and rendering (SketchUp)
2. Orthographic multi-view projections(plan, section, elevation) (Manual/SketchUp)
3. Perspective (1point & 2point) projections (Manual/SketchUp)
4. Computer aided rendering and image editing (SketchUp/ 3D Studio Max/ Photoshop)
5. Freehand drawing (pencil, pen & ink)
6. Walk-through Animation (3D Studio Max/Premiere/Audition)

## II. BOOKS/READINGS

**Primary References**
Class handouts posted on Blackboard (http://courses.missouri.edu)

**Required Text Books**
Freehand Sketching-An Introduction, Paul Laseau (Norton)

**Recommended Text Books**
Color Drawing (Third Edition), Michael E. Doyle (John Wiley)
Visual Notes for Architects and Designers, Norman Crowe & Paul Laseau (John Wiley)
Understanding Architecture Through Drawing (Second Edition), Brian Edwards (Taylor & Francis)

**Additional References/ Books**
Freehand Drawing, Magali Delgado Yanes & Ernest Redondo Dominguez (Norton)
Digital Drawing for Designers: A Visual Guide to AutoCAD, Douglas Seidler (Fair Child) pp.53-87
Architectural Drawing: A Visual Compendium of Types and Methods, Rendow Yee (John Wiley)
Axonometric and Oblique Drawing: A 3D Construction, Rendering, and Design Guide, M. S. Uddin (McGraw-Hill)

Interior Design Visual Presentation: A Guide to Graphics, Models & Presentation Techniques, Second Edition by Maureen Mitton (John Wiley)
Architectural Rendering Techniques, Mike Lin (John Wiley)
3ds Max 10 Bible, Kelly L. Murdock
Architectural Graphics; Francis D. K. Ching
Manual of Graphic Techniques - 4, Porter and Goodman
Entourage, A Tracing File, Ernest Burden
Architectural Sketching & Rendering: Techniques for Designers and Artists,

## III. DESCRIPTION OF INSTRUCTIONAL PROCEDURES

- During class, ideas and information related to the main objectives will be demonstrated by the instructor. This will be followed by brief in-class exercises to be accomplished by the end of the class period. These exercises are intended to evaluate the student's understanding of the concepts pertaining to the lecture
- Specific topics will be presented and discussed as the semester progresses. Class lectures and required readings are considered as part of the assignments. Each exercise will be elaborated upon in the class for the purpose of discussion.
- In addition to in-class exercises, there will be major projects which span multiple weeks. These projects evaluate the student's ability to synthesize ideas as well as techniques learned from multiple lectures, integrating diverse tools to effectively communicate design ideas and details.

## IV. COURSE REQUIREMENTS

**Academic Requirements**

- It is your responsibility to come prepared with your supplies and equipment required to complete all in-class and take-home assignments for the specific class period.
- The outline of main requirements throughout the semester are given below:

i) 3 projects accounting for 60% of the overall grade:
1. Sketch Book (15% of overall grade - Due Nov. 19)
2. Architectural modeling using SketchUp (15% of overall grade - Part 1 due Sept. 24 and Part 2 due Oct 13),
3. Final Project (30% of overall grade - Due Dec. 10)

ii) Approximately10 in-class exercises accounting for 30% of the overall grade. Late submission of exercises or unexcused absence will result in 0 points without additional opportunity to resubmit.

iii) attendance (10%)

- Not following the direction and guidelines of the assignments will affect the grade. Project/s not developed in class with the professor's guidance will not be accepted and will automatically receive a grade of "F", no matter what quality it may be.
- Students will be required to complete all assignments, and participate in class discussion/reviews.

**Administrative Requirements**

*Attendance Requirements*

- Attendance is mandatory for the entire duration of the class. Coming late to class and/or leaving early will affect and lower an individual's grade.
- A student is considered late if he/she comes to class after the scheduled class time. More than thirty minutes late will be considered as one full absence. Late up to thirty minutes will be considered as half a class period absent. Two lates (less then thirty minutes each) are considered as one full absence. When a student receives more than five absences, the student will be placed in attendance probation. An additional absence may result in the dropping of the student from class by the instructor. Two excused absences will be tolerated.
- The faculty member is not responsible for updating students on the information/handout they missed during unexcused absence.

**Late Submissions**
Projects constitute the major portion of your overall final grade. To ensure a quick turn-around time for grading of exercises and projects, late submissions are dscouraged and carry penalty. Late submissions of projects may significantly lower the grade. A late project will nomally receive approx. 70% of what the assignment deserves -e.g., A+ project may become B- or C+ if submitted late.

**Academic Honesty**
Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters. Sanctions for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. 3D models and/or CAD drawings that you didn't create should not be considered your work. Depending on the requirements of the assignment, this may result in 0 point. When in doubt about plagiarism or any other form of cheating, consult the course instructor.

**Individuals Needing Accommodation**
If you need accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class, or at my office.To request academic accommodations (for example, a notetaker), students must also register with the Office of Disability Services, (http://disabilityservices.missouri.edu), S5 Memorial Union, 882-4696. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements. For other MU resources for students with disabilities, click on "Disability Resources" on the MU homepage.

**Supplies/Material List**
18" or 24" roll of tracing paper, Quality grade Vellum: 24" roll
Drafting Pencils/Lead Holders/Mechanical Pencils, with H, HB, B Leads
Technical Pens/Rapidograph: Recommended sizes: .18, .20, .25, .30, .35, .5 mm.
Parallel Rule/T-Square with clear Plastic edge, 36" minimum.
Triangles: One 30°-60° (at least 12" long), one 45°-45° and one adjustable (8" or 10")
Architect's Scale (Triangular): with 1/8", 1/4", 3/16" increments
Eraser, Metal erasing shield, Drafting Tape or Dots
Carrying Case for Tools, Carrying Tube for Drawings
Prisma Color Pencil set
Thumb Drives / CDs
Photo-quality paper for printing (according to project need)

Additional equipment may be required as the class progresses, especially at the end of the semester. At all times bring your supplies to class. Be prepared for in-class assignments.

## VI. GRADING

Each student will be evaluated individually on:

- the completeness and aesthetic quality of the projects
- the punctuality of projects and exercise sumbissions.
- class attendance

NOTE: It is the student's responsibility to submit a project by the due date.

Grading scale:

| | | | |
|---|---|---|---|
| A+ 96~100 | A 93~95 | A- 90~92 | Excellent/superior |
| B+ 87~89 | B 83~86 | B- 80~82 | Above average |
| C+ 77~79 | C 73~76 | C- 70~73 | Average |
| D+ 67~69 | D 63~66 | D- 60~63 | Below average |
| F 59 and below | | | |

Final grade = 60% projects + 30% exercises + 10% attendance

**2009 Fall Syllabus**
2009F_ARCHST2230_syllabus.pdf (162.932 Kb)

**Tentative Schedule**

| | |
|---|---|
| week 01 | Introduction to Design Communication / Digital Media<br>08. 25 (T) Course Overview, Policies and Expectations; Freehand Sketching - 1<br>08. 27 (R) Freehand Sketching - 2 |
| week 02 | 09. 01 (T) Introduction to 3D Modeling & SketchUp<br>09. 03 (R) SketchUp Basics |
| week 03 | 09. 08 (T) Architectural Modeling Using SketchUp<br>09. 10 (R) Advanced SketchUp Techniques - Intersect, Section, Follow-me, Roof & Terrain |
| week 04 | 09. 15 (T) Advanced SketchUp Visualization - Lights / Shadows; Cameras / Walkthroughs<br>09. 17 (R) Carol Ann Williams Lecture (Stotler Lounge, Memorial Union at 9:30 a.m.) |
| week 05 | 09. 22 (T) SketchUp LayOut<br>09. 24 (R) Photoshop - Basics<br>**SKETCHUP PROJECT PART - 1 DUE AT BEGINNING OF CLASS ON 09. 24** |
| week 06 | 09. 29 (T) Photoshop - Advanced Techniques<br>10. 01 (R) Photoshop - Advanced Techniques |
| week 07 | 10. 06 (T) Advanced SketchUp Technique - Modeling from photographs<br>10. 08 (R) In-class Work Session for SketchUp Project part -2 |
| week 08 | 10. 13 (T) Introduction to Solid Modeling - 3D Studio Max<br>10. 15 (R) 3DS Max Basics<br>**SKETCHUP PROJECT PART - 2 DUE AT BEGINNING OF CLASS ON 10. 13** |
| week 09 | 10. 20 (T) In-Class Work Session<br>10. 22 (R) In-Class Work Session |
| week 10 | 10. 27 (T) Advanced Modeling Using 3D Max - Boolean, Loft, Modifiers etc<br>10. 29 (R) Advanced Modeling Using 3D Max (contd.) |
| week 11 | 11. 03 (T) 3DS Max - Materials and Textures<br>11. 05 (R) 3DS Max - Materials and Textures (contd.) |
| week 12 | 11. 10 (T) 3DS Max - Lights and Rendering<br>11. 12 (R) 3DS Max - Lights and Rendering (contd.) |
| week 13 | 11. 17 (T) 3DS Max - Camera Basics<br>11. 19 (R) 3DS Max - Animation Basics<br>**SKETCH BOOK PROJECT DUE AT BEGINNING OF CLASS ON 11. 19** |
| week 14 | Thanksgiving Break |
| week 15 | 12. 01 (T) Advanced Presentation Techniques / Work on Final Project<br>12. 03 (R) Advanced Presentation Techniques / Work on Final Project |
| week 16 | 12. 08 (T) Work on Final Project<br>12. 10 (R) **FINAL PROJECT DUE** |