ARCH 1291 - VISUAL STUDIES II
SPRING 2015
Syllabus
1 classroom hour, 2 lab/studio hours, 2 credits

COURSE DESCRIPTION

Visual Studies II builds on the knowledge of architectural representation and visualization obtained in Foundations I and Visual Studies I. The course provides training in design tools that will strengthen visual, verbal, and graphic aspects of design and representation skills and will introduce students to design and representation techniques and workflows that will prepare them for future coursework and professional practice. The course is taken together with Foundations II and focuses on:

- Precision and craft in physical models and drawings, including basic rendering techniques
- Precision and craft in digital models and drawings, including basic rendering techniques
- Understanding of differences between physical and digital techniques in architectural design and representation, and how the two can be combined into effective workflows
- Effective digital file management and organization
- Effective arrangement of drawings, diagrams, graphics, and text onto presentation boards and in portfolios
- Clear representation of geospatial information
- Ability to intelligently discuss design concept and process in oral presentations

Students will be exposed to a number of design applications during the semester, including Rhino, Adobe Photoshop, Adobe Illustrator, Adobe InDesign, and ArcGIS. They will also learn basic digital fabrication techniques including laser cutting and the use of digitizing arms. All students are required to have a Dropbox account (free at http://www.dropbox.com/) so that they can submit files to the professor digitally, and typically in the native file format. The following file naming protocol should be followed: Course Number_Professor initials_semester/year_Project Name_Student Name(image number). example: 1291_EBS_S14_ProjectName_StudentName(01).

COURSE CONTEXT

This course is a requirement and serves as the basis for all courses involving presentation and representation including the Design Studio sequence and the Building Technology sequence.

Prerequisites: ARCH 1110: Architectural Design I Foundations I with a grade of C or greater
ARCH 1191: Visual Studies I with a grade of C or greater

Co-requisites: ARCH 1210: Architectural Design II: Foundations

Required Texts:

Lupton, Ellen, *Graphic Design: The New Basics.* 2008, New York: Princeton Architectural Press.
Software Primers *for Rhino, Illustrator, InDesign, Photoshop, and VRay located at*
https://openlab.citytech.cuny.edu/fuselab/softwarefabrication-tutorials/

Recommended Texts:

Ching, Frank, *Architectural Graphics.* 2009, Hoboken, NJ: John Wiley & Sons.
Pottman, H. et al. *Architectural Geometry.* 2010, Philadelphia: Bentley Press.
Tufte, Edmund, *Envisioning Information.1990*, Cheshire, CT: Graphics Press.
Tufte, Edmund, *Beautiful Evidence.* 2006, Cheshire, CT: Graphics Press.
Samara, Timothy, *A Handbook of Basic Design Principles Applied in Contemporary Design.* 2008, Providence: Rockport Publishers.
Zell, Mo*, Architectural Drawing Course: Tools and Techniques for 2D and 3D Representation,* 2008, Boston: Barron's.
McCandles, David, *Visual Miscellaneum.* 2009, New York, NY: Collins Design Publishers.
websites: Visual Economics, Information is Beautiful, Mathematica, and Google Earth/Maps resources

ATTENDANCE POLICY

No more than 10% absences are permitted during the semester. For the purposes of record, two lateness are considered as one absence. Exceeding this limit will expose the student to failing at the discretion of the instructor.

COURSE STRUCTURE

This course will be offered as a lecture/lab format with hands on tutorials that introduce concepts, techniques and methods needed for completion of the assignments. Students will produce a series of projects through hand tools and techniques and digital means that communicate ideas and incorporate data of increasing complexity in a variety of presentation formats. These assignments will be presented as part of in class presentations or in conjunction with Design Foundation II presentations.

GRADING

In-class Exercises and Homework	75%
Electronic Submittal of all course work	10%
Class Participation	10%
Reading Presentations	5%

Edward Tufte, "Images and Quantities," in Visual Explanations, pp. 12-26, Architectural Presentations Tutorial, all Edward Tufte, "Images and Quantities," in Visual Explanations, pp. 12-26, Architectural Presentations Tutorial, all Edward Tufte, "Images and Quantities," in Visual Explanations, pp. 12-26, Architectural Presentations Tutorial, all

ACADEMIC INTEGRITY

Students and all others who work with information, ideas, texts, images, music, inventions and other intellectual property owe their audience and sources accuracy and honesty in using, crediting and citation of sources. As a community of intellectual and professional workers, the college recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension and expulsion.

LEARNING OJECTIVES

Upon successful completion of this course, the student will:
1. **Distinguish** between types of drawing techniques and **apply** as appropriate in architectural contexts (Knowledge)
2. **Demonstrate** understanding of computer hardware and software methods and standards as used in architectural practice (Knowledge and Skill)
3. **Demonstrate** knowledge of graphic conventions and methods of digital file organization (Knowledge and Skill)
4. **Communicate** ideas and information through oral presentations. (Gen Ed)
5. **Recognize** and **use** design concepts and vocabulary (Gen Ed and Skill)
6. **Create** digital 3-D models (including BIM) of medium geometric complexity and produce orthographic, axonometric, and perspective views. (Skill)
7. **Create** digital two-dimensional orthographic drawings. (Skill)
8. **Manipulate** vector and raster files. (Skill)
9. **Create** analogue and digital renderings. (Skill)
10. **Perform** form generating parametric modeling. (Skill)

ASSESSMENT

To evaluate the students' achievement of the learning objectives, the professor will do the following:
1. **Review** students' selection of drawing techniques. (Lo: 1)
2. **Observe** students' progression from simple to complex thinking as shown in sketches and completed projects. (Los: 1, 4, 7)
3. **Observe** students' use and manipulation of computer hardware and software. (Los: 2, 3, 6, 8)
4. **Inspect** students' digital files for use/application of professional standards. (Lo: 3)
5. **Inspect** students' portfolios for quality of documentation and editing as well as organization. (Los: 3, 6)
6. **Review** student digital files for use/application of professional standards. (Lo: 3)
7. **Review** students' drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D). (Los: 3, 4, 5, 6, 7, 8, 9, 10, 11)
8. **Assess** the students' use of professional vocabulary during oral presentations. (Los: 4, 5)