

Course Syllabus – Spring 2014

WLAC Course: Arc 180 CAD Laboratory (CSU) 1.00 Unit

PRE-REQUISITE / CO-REQUISITE

Co-requisite: Arc 161

SCHEDULE / LOCATION

6:00 pm – 7:45 pm M, Th at LAIAD, 3807 Wilshire Bl. Suite 330

FACULTY

Jason King 323 916 3524 jason@jasonfking.com

OFFICE HOURS

By Appointment. The instructor is available during business hours for consultation outside of class. Students are encouraged to seek help and bring concerns to the instructor during this time. Please don't hesitate to ask for help or assistance if you need it, or to discuss any concerns you have regarding the class.

COURSE DESCRIPTION

Arc 180 CAD Laboratory: Arch 180 is a computer laboratory class that allows students to receive hands-on computer instruction while working on assignments for Arch 161. Arch 180 is a co-requisite for Arch 161. Students are to provide their own laptop computer and the appropriate software for the course.

REQUIRED HARDWARE

A 64-bit laptop running Windows. (If you are a Mac user, you must install Boot Camp and Windows right away.)

REQUIRED HARDWARE

Rhino 5 SR7 (Rhino for Mac is still in Beta and is not sufficient for this class. The underlying framework is being re-written from dot net to Mono and will not be suitable for professionals until this is complete.) Be sure to buy the student version at the highly discounted rate of \$195.

Grasshopper Available free at grasshopper3d.com (we will be installing many wonderful Grasshopper plugins throughout the semester as needed. They are all free.)

Adobe Illustrator I recommend the entire CC suite at \$19.95 per month for students, but all you really need for this class is Illustrator.

Optional

Flamingo NXT An excellent, affordable rendering engine for Rhino. \$95 with student discount.

LEARNING OBJECTIVES

1. Practice the software taught in the concurrent course and access department printers, plotters, and scanners to assist in completion of co-requisite course assignments.
2. Assess, compare, and select appropriate commands to achieve particular tasks.

3. Utilize the computers to produce a variety of architectural documents.
4. Delineate projects assigned in the concurrent course.
5. Compare and discuss solutions to project design challenges with other students.
6. Produce animations such as walk-throughs and fly-arounds for class presentation.
7. Produce large format prints at correct size/scale to create presentation boards.
8. Assemble class projects portfolio.
9. Develop skills related to digital data management.

COURSE CONTENT

- Basic Knowledge of Digital Architectural Software

1. Learning and understanding of the Rhino interface / tools
2. Emphasis on Rhino as a tool for design
3. Integration of Multi software applications into single work flow
4. Understanding vector and pixel based programs
5. Learning and understanding of the Rhino interface / tools
6. Emphasis on Rhino as a tool for 2D description
7. Integration of Multi software applications into single work flow

- Basic Techniques of Digital Architectural Drawing

1. Modeling / drafting of a design
2. Rendering
3. Composition
4. Presentation

- Basic Techniques in Spatial Description

1. Orthographic projection: Plan, Section, Elevation.
2. Axonometric and isometric views
3. Relationships of plan, section, and elevation in a composition.

- Basic Techniques of Analytical Drawing

1. Use of diagrams as design tools
2. Use of Diagrams as presentation tools
3. Compositional diagramming through abstract analysis

- Basic techniques in architectural presentation software

1. Understanding interface and tools
2. Digital modeling / drafting, export, and rendering
3. Continuing discussion on the use of diagrams: as a design tool versus an explanation tool.
4. Use of varying graphics in presentation: 2d architectural drawings, 3d architectural drawings, 2d and 3d diagrams, photography, 3d renderings, text.
5. Compositional relationships in presentation
6. Verbal presentation skills

EVALUATION GUIDELINES AND PROCEDURES:

1. Students are evaluated for individual progress using the following criteria:
 - A. Development of skills and abilities listed under learning objectives.
 - B. Attendance and contribution to studio, lectures, and field trips.
 - B. Evidence of motivation / perseverance.
 - D. Willingness to explore alternatives and take risks.
 - E. Willingness to accept criticism.
2. In terms of the criteria listed above the design studio activities are weighted approximately as follows:

Projects & Case Studies	75% (number of projects may vary)
Attendance and Participation	15%
Instructor Discretion	10%
TOTAL	100%
3. Grades given on LAIAD transcripts will be traditional A,B,C, F grading. No grades of D will be given.

4. Equal Grades will be given on West Los Angeles College Transcripts if student is enrolled at WLAC for credit.
5. Attendance is mandatory. Students missing 25% of classes will be subject to dismissal.
6. **No project assignments will be accepted for full credit if late or unfinished.**

TENTATIVE SCHEDULE: Spring 2014

See individual design assignments for particular schedule. Homework will be assigned on a daily basis. Attendance is mandatory to all class meetings.

Week	Day	Date	Subject Matter
0	Thur	Feb 6	Course Overview + Computer Setup
1	Mon	Feb 10	Research Project 1: Assigned In-Class: Rhino UI Overview
	Thur	Feb 13	In-Class: Rhino Periodic Table
2	Mon	Feb 17	Research Project 1: Due
	Thur	Feb 20	In-Class: Rhino Periodic Table
3	Mon	Feb 24	Case Study Project 1: Assigned
	Thur	Feb 27	In-Class: Rhino 2d Tutorials
4	Mon	Mar 3	In-Class: Rhino 3d Tutorials
	Thur	Mar 6	In-Class: Rhino Drawing(s) Tutorials
5	Mon	Mar 10	Case Study Project 1: Due
	Thur	Mar 13	Rhino Project 1: Assigned
6	Mon	Mar 17	
	Thur	Mar 20	
7	Mon	Mar 24	
	Thur	Mar 27	
8	Mon	Mar 31	
	Thur	Apr 3	Rhino Project 1: Due
9	Mon	Apr 7	Spring Break
	Thur	Apr 10	Spring Break
10	Mon	Apr 14	Grasshopper Project 1: Assigned
	Thur	Apr 17	
11	Mon	Apr 21	
	Thur	Apr 24	
12	Mon	Apr 28	

	Thur	May 1	
13	Mon	May 5	Grasshopper Project 1: Due
	Thur	May 8	Final Project: Assigned
14	Mon	May 12	
	Thur	May 15	
15	Mon	May 19	
	Thur	May 22	Final Project: 80% Due
16	Mon	May 26	Memorial Day –No Class
	Thur	May 29	Final Project: Mock Pinup
17	Sat	May 31	ALL WORK DUE –Final Jury on Saturday May 24