Delta College

Delta College
Technical
Trades
Manufacturing

Syllabus Architectural AutoCAD 3D Basics

Course: ARC 214-110 Architectural AutoCAD 3D Basics 3 Credits

Prerequisite(s): Basic knowledge of the Windows Operating System.

Meeting Times: Wednesday 10:00 a.m. – 12:55 p.m.
Room Number: M103

Course Dates:
Course Start Date: January 9, 2019
Course End Date: April 24, 2019

Instructor Information:
Instructor: Tari J. Hackborn
Office: M122
On Campus office hours: Tuesday 10:00 – 11:00 a.m., 1:00 – 2:00 p.m.
Wednesday 1:00 – 2:00 p.m.
Thursday 10:00 – 11:00 a.m., 1:00 – 2:00 p.m.
On Campus Phone: 989-686-9044
E-mail: tjhackbo@delta.edu

Course Materials:
Required Textbook:
Title: Residential Design Using Autodesk Revit 2019
Author: Daniel John Stine
Publisher: SDC Publications
ISBN: 978-1-63057-187-0

Course Description:
Introduces construction of 3D parametric architectural models using BIM (building information modeling) software --interface, menus, toolbars and editing. Covers creating and managing project files and sheets, using a template, using basic linework and modeling tools, adding annotations and dimensions to models, loading and using 3D architectural components from online sources, and printing methods to produce construction documents. Includes generating plan, elevation, section views and schedules from the architectural model, using rendering tools to set up camera views and creating photo-realistic renderings. Introduces analysis software. (45-0)

Course Goals and Objectives: Upon successful completion of this course, the student will be able to:

Outcome 1: Use BIM software and a current operating system.

A. Open, save and close a modeling file
B. Use a current saving device
C. Create a project file

Outcome 2: Create 3D geometry.

A. Create exterior, interior, and custom walls
B. Insert doors and windows
C. Construct roof systems
D. Complete floor and ceiling systems

E. Place light fixtures
F. Add annotations and dimensions to the geometry

Outcome 3: Generate elevation views from the 3D model.

A. Create and view exterior elevations
B. Modify exterior elevations
C. Create and view interior elevations
D. Modify interior elevations

Outcome 4: Derive section views from the 3D model.

A. Set a cutting plane line
B. Produce wall sections
C. Produce building sections
D. Apply section annotations

Outcome 5: Create customized interior designs.

A. Download families of 3D architectural components
B. Use 3D components to design interiors, including a custom kitchen layout
C. Add handrails to stairs

Outcome 6: Prepare schedules from the 3D model.

A. Modify room and door tags
B. Generate door schedules
C. Generate room finish schedules

Outcome 7: Demonstrate the ability to create realistic renderings.

A. Create a toposurface using site tools
B. Produce a realistic exterior rendering of the model
C. Create a realistic interior rendering

Outcome 8: Give examples of analysis software.

A. Name and describe several applications of analysis software
B. Explain the importance of analysis software in sustainable design

ATTENDANCE POLICY:

Attendance is required. Students are expected to be fully prepared for and participate in all class sessions. Absences will affect student's final grade. Students who are absent/tardy for two or more classes may be dropped from the course. If for some reason you cannot make it to class, I expect a phone message or email explaining your absence prior to the beginning of class.

CLASS POLICY:

Daily reading and homework assignments are due to be completed prior to class. All electronic assignments are due on the date and time assigned to the drop box. Printed assignments are due on the assigned date at the beginning of class. **When assignments are corrected any missing assignments will receive a zero. Assignments turned in late will experience reduced points. Any assignment over 5 days late will only receive 75% of its value. Assignments over 10 days late will not be accepted.**

EXAMS:

Exams and quizzes are expected to be taken on the assigned date. **Exams taken late without prior arrangements will be subject to a 20% reduction in score with one week to make it up**. Phone use during an exam or quiz will result in immediate failure of the exam

CLASS CANCELLATION POLICY:

Class cancellations are rare. If you plan to attend the optional on campus lab when serious weather conditions are present, call Delta College for current course offerings. Delta College weather line 989-686-9179

OTHER QUESTIONS ABOUT THIS CLASS:
Questions regarding course content, practices, and other matters outlined in this syllabus should be directed to your instructor. Questions regarding drop/add, course withdrawal, refunds, etc. should be directed to the Delta College Registrar.

WITHDRAWAL POLICY:
To receive any withdrawal grade, you must fill out the paper forms at the Registration Center. Failure to attend class is NOT considered withdrawal. The instructor does not have the option of giving a withdrawal grade at their discretion.

DISIBILITY ISSUES:
If you feel that you have an issue related to a disability that will require extra accommodation beyond that given to all students, please contact the Director of Disability Services, at 989 686 9332.

RESERVATION STATEMENT:
The instructor reserves the right to make adjustments to this syllabus as needed. In the event that this is necessary, instructor will provide the changes in writing; if possible you will be notified of the change in advance. Check your Delta email daily.

OFFICE HOURS:
Students may come to my office to ask questions during any of my posted office hours. Also, I have an open door policy. If my office door is open and I am in my office, students may stop in to get help or ask questions.

ACADEMIC HONESTY:
The principles of truth and honesty are recognized as fundamental to a community of scholars. The College expects that both faculty and students will honor these principles and in so doing will protect the validity of College grades. This means that all academic work will be done by the student to whom it is assigned without unauthorized aid or falsification of any kind. Students turning in duplicate work will both receive a zero (0) on the assignment with additional consequences. The instructor has an obligation to penalize all persons involved in such activity in accordance with Delta College Policy on Plagiarism and Integrity of Academic Work (http://www.delta.edu/catalog/StudentsRights.asp).

Grading Scale:
Grades are reported as letter grades "A" through "F" with honor points assigned as follows:

Letter Grade	Percentage
A	94-100
A-	90-93
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76
C-	70-73
D+	67-69
D	64-66
D-	60-63
F	0-59

Evaluation Methods and Grading Scale:
Evaluation methods, points, and percentage weights used in this class are indicated below:

Method	% of Final Grade
Homework Assignments	83%
Tests/ Quizzes	9%
Project	8%