South Plains College
Mathematics, Engineering, & Computer Science Department
Engineering Graphics 1 – ENGR 1304.002
Tuesday & Thursday: 8:00am – 10:40am
Course Syllabus - Fall 2025

Instructor: Jake Wyatt, PE, SE
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Office Hours (Levelland Campus): M & W: 3-4:30, F: 9-12, and by appointment.

Course Description: This course is an introduction to computer-aided drafting using REVIT 2025 software to build three dimensional models and generate two- and three-dimensional drawings based on the conventions of engineering graphical communication.

Credit: 3 Semester Credit Hours

Prerequisites: MATH 1314 (College Algebra)

Textbook: Autodesk Revit 2025 Structure Fundamentals by SDC Publications

Attendance: Attendance and effort are important for success in this course. Class attendance may be taken at any time during the class period, so please do not arrive late or leave early.

Class Format:

8:00 – 8:40	Lecture
8:40 – 10:40	In-Class Assignment

In-Class Assignments: There are two types of in-class assignments: practice exercises and real project applications. The practice exercises are taken from the textbook and provide hands-on practice of the topic covered during the lecture. The real project applications come from a real engineering project and reinforce the previous lecture and practice exercise. All in-class assignments are to be printed (8.5 x 11-inch paper) and submitted at the beginning of the class meeting following the meeting in which they were assigned. The format for in-class assignment submissions is as follows.

1. Heading at the top left of the first page to include student's name, date, and subject.
2. Two-to-three "screen captures" showing the work the student completed during the in-class assignment.

Final Exam: The final exam will be a set of engineering construction documents that each student has drawn and will present to the class. These construction documents will be the amalgamation of all the "real engineering project" in-class assignments that the student has completed over the course of the semester.

Supplementary Information: The course syllabus, schedule, and grades can be accessed through Blackboard, the online course management system for this course. Please email questions regarding Blackboard support to blackboard@southplainscollege.edu.

Grading:

Practice Exercises:	30%
Real Life Applications:	30%
Final Exam:	40%

Your final average in the course will determine the letter grade posted on your transcript. This grade is determined by the following scale. A(90-100%), B(80-89%), C(70-79%), D(60-69%), F(0-59%).

Engineering Graphics 1 Course Outline
ENGR 1304.002 (TR 8:00 – 10:40am)
Fall 2025

Week	Date	Lecture Topic	Assignment
1	Aug 26 – T	Chapter 1: Introduction to Revit	Practice 1a
	Aug 28 – R	Chapter 2: Setting Up Levels & Creating Grids	Practice 2b, Practice 2c
2	Sep 1 - M	*Labor Day Holiday – no office hours*	
	Sep 2 – T	Real Project Application	Set up Levels, Create Grids
	Sep 4 – R	Chapter 5: Adding General Building Elements	Practice 5a
3	Sep 9 – T	Chapter 5: Working w/ Modify Tools	Practice 5b, Practice 5c
	Sep 11 – R	Chapter 6: Adding Columns	Practice 6a, Practice 6b
4	Sep 16 – T	Real Project Application	Model Columns
	Sep 18 – R	Chapter 7: Walls	Practice 7a
5	Sep 23 – T	Chapter 7: Isolated Footings	Practice 7b
	Sep 25 – R	Real Project Application	Model Footings
6	Sep 30 – T	Chapter 8: Structural Framing	Practice 8a
	Oct 2 – R	Real Project Application	Model 2nd Floor Framing
7	Oct 7 – T	Chapter 8: Modifying Structural Framing	Practice 8b
	Oct 9 – R	Chapter 8: Trusses	Practice 8c
8	Oct 14 – T	Real Project Application	Model Roof Framing
	Oct 16 – R	**Guest Project Presentation by Practicing Architect!**	
	Oct 17 - F	*SPC Fall Break – no office hours*	
9	Oct 21 – T	Chapter 9: Slabs & Shaft Openings	Practice 9a, Practice 9b
	Oct 23 – R	Real Project Application	Model Slab & Opening
10	Oct 28 – T	Chapter 10: Structural Reinforcement	Practice 10a, Practice 10b
	Oct 30 – R	Real Project Application	Model Foundation Reinforcement
11	Nov 4 – T	Chapter 12: Working w/ Annotations	Practice 12a, Practice 12b
	Nov 6 – R	Real Project Application	Dimension Plan Views
	Nov 7 - F	*Registration Opens for Spring*	
12	Nov 11 – T	Chapter 13: Adding Tags & Schedules	Practice 13a-13c
	Nov 13 – R	Real Project Application	Tagging & Footing Schedule
13	Nov 18 – T	Chapters 3.5 & 14: Sections, Elevations, & Detail Views	Practice 3c, Practice 14a-14c
	Nov 20 – R	Real Project Application	Add Details & Elevations
14	Nov 25 – T	Chapter 11: Creating Construction Documents & Printing	Practice 11a
	Nov 27 – R	*Thanksgiving Holiday – No Class*	
15	Dec 2 – T	Real Project Application	Prepare Construction Documents
	Dec 4 – R	Real Project Application	Prepare Construction Documents
16	Dec 9 – T 8:00–10:00 am	**Final Exam (20%)**	Present Construction Documents

Note: The instructor reserves the right to modify the course syllabus and schedule, as well as notify students of any changes, at any point during the semester.