



Instructor: Perry Carmichael

E-Mail: perry.carmichael@linnbenton.edu

IA&Co-Host: Ric Costin

Zoom: <https://linnbenton.zoom.us/j/5419174774>

Zoom: <https://linnbenton.zoom.us/j/5419174773>

Office Hours: Monday~Thursday 9 to 10:00am, Friday 10am to Noon or by appointment

Course Goals and Objectives:

Students will learn to create wireframe and solid 3D models. Students will also develop 2D drawings from 3D models in accordance with current ANSI standards

Required Text and Supplies:

Technical Graphics Communication, 4th ed., Bertoline & Wiebe, McGraw-Hill (TGC), Computer capable of using AutoCAD 2020, Autodesk Inventor 2020, 2020 student versions of AutoCAD and Inventor, Internet connection, Dropbox account, Zoom meeting software. Dual monitors are recommended.

Evaluation:

A: 100-90%
B: 89~80%
C: 79~70%
D: 69~60%
F: 59% or below

Grade Weighting

Tests & Quizzes: 60%
Assignments: 40%

IN: By signed agreement, student requested. All coursework to be made up within a term.

Outcomes:

- Use CAD software to create 3D solid models
- Create drawings to ASME drafting standards from 3D solid models
- Create small 3D solid assemblies

Miscellaneous:

- **Success** in this class is easily attainable through the following:
 - Attend and login to Zoom 5 minutes early and promptly every day
 - Inform the instructor of missed classes in advance
 - Work to the best of your ability
 - Be prepared
 - Conduct yourself respectfully
 - Care about what happens in class
- If you miss a class you are responsible for assignments and due dates.
- All homework is due at the beginning of class. Google *Date Modified* data will be used as timestamp.
- Late homework is not accepted. For more information and exceptions, see the [late policy](#).
 - Exceptions may be made due to illness/accidents or other unusual circumstances
 - Late homework may be taken due to pre-planned events but **arrangements must be made in advance**
- NO LATE HOMEWORK WILL BE TAKEN AT THE FINAL.
- Extra credit will boost the assignment portion of your grade. Extra credit applies after regular homework only, no late extra credit will be taken.
- All homework is unique and original work created by the person named on the drawing for whom the homework is being turned in by. No part of the homework, except group projects, shall be copied, duplicated, shared or in any way represent work done by someone else. Any duplicated or otherwise copied drawing will be given a grade of 0 for each person.
- Students who may need accommodations due to documented disabilities, or who have medical information which the instructor should know, or who need special arrangements in an emergency, should speak with the instructor during the first week of class. If you believe you may need accommodations, but are not yet registered with CFAR, please go to <http://linnbenton.edu/cfar> for steps on how to apply for services or call 541-917-4789.

Course Outline:

(Note: This may change and is not all inclusive)

AutoCAD

- Week 1: Intro, Intro to 3D, Coordinates & UCS, Model Space Viewports, Wireframes
- Week 2: Options, Solid primitives, Editing I
- Week 3: Extrusions & Revolutions, Parametric Sketches
- Week 4: Sweep & Loft, Editing, Multi-view drawings
- Week 5: Mid Term

Inventor

- Week 5: Sketches
- Week 6: Extrude, Revolve, Planes, Cuts, Projections
- Week 7: Placed Features, Editing
- Week 8: Drawings
- Week 9: Assemblies, BOM
- Week 10: Presentation; Fina (optional): Thursday @9:30