

ENGR 107 – Engineering Graphics with CAD

Spring 2024

Instructor: Mark Holdhusen, Ph.D. (he/him/his)

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Zoom: <https://wisconsin-edu.zoom.us/j/6053340979>

Office Hours

- Wausau (381-D): Tu 12:00-1:00
We 1:00-2:00
- Stevens Point (SCI B109): Th 11:00-12:00
- Marshfield (433): Fr 9:00-10:00

Description:

An introductory course in engineering graphics focusing on graphical communication. Topics include descriptive geometry elements, visualization, engineering drawing techniques, orthographic projection, pictorial representation, auxiliary and section views, and basic dimensioning. The course incorporates computer aided drafting (CAD) with engineering applications using 2-D drawing and 3-D modeling techniques.

Text:

- AutoCAD Tutorial First Level 2D Fundamentals by Randy H. Shih
- Parametric Modeling with Autodesk Inventor by Randy H. Shih

Course Website:

We will be using Canvas for the website in the course. This class is a hybrid format so much of the course is online. The URL is <https://www.uwsp.edu/canvas> and you login using your UWSP username and password. The labs can be found there as well as the grades.

Meeting Times:

- Tuesday 2:00PM – 2:50PM (Virtual)
 - <https://wisconsin-edu.zoom.us/j/99244813506?pwd=c2ZBSiZBTElXbGlhU3B6Y1d2bkdwZz09>
- Wednesday 2:00PM - 3:50PM (Wausau Room 146)
 - <https://wisconsin-edu.zoom.us/j/92981522177?pwd=Q3F1NXFELzMyTGlaeW1mNG80WG57Zz09>
- Thursday 9:00AM - 10:50AM (Stevens Point SCI A224)
 - <https://wisconsin-edu.zoom.us/j/93568527744?pwd=bCtBOHhCK1Q3VVliR3V6MUZRTXITZz09>
- Friday 1:00PM - 2:50PM (Marshfield Room 404F)
 - <https://wisconsin-edu.zoom.us/j/92699048568?pwd=cjV0dUd1TkpjYmdLY0tTzy9icjZMZz09>

Free Software:

Go to <https://www.autodesk.com/education> to download AutoCAD and Inventor for free. All you need is a school-issued email address from a college or university.

Grading:

- 10% - Tutorials: Most weeks consist of some tutorials from the textbook that are due before lab begins. Tutorials will be submitted via Canvas. Late assignments will not be accepted.
- 50% - Labs: Labs are due nearly every week. All CAD labs must be uploaded to Canvas by the time posted. Late assignments will not be accepted.
- 30% - Exams: 2 equally weighted in-class exams will be given for each AutoCAD and Inventor. The exams will consist of a small project that will be completed during class.
- 10% - Inventor Lego Project – more details to follow

Academic Misconduct:

Academic misconduct is an act in which a student seeks to claim credit for the work or efforts of another without authorization or citation. Examples of academic misconduct include submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another or knowingly and intentionally assisting another student in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

Any student found engaging in academic misconduct on an assignment will receive the disciplinary sanction of receiving a failing grade on the assignment. If such an academic misconduct occurs again during the semester, the student will receive a failing grade in the course.

Course Schedule:

| Date | Topics | Lab |
|-----------------|---------------------------|------------|
| 22-Jan - 26-Jan | Sketching Multiviews | 1 |
| 29-Jan - 2-Feb | AutoCAD Chapters 1 - 2 | 2 |
| 5-Feb - 9-Feb | AutoCAD Chapters 3 - 5 | 3 |
| 12-Feb - 16-Feb | AutoCAD Chapters 7 - 8 | 4 |
| 19-Feb - 23-Feb | AutoCAD Chapters 11 - 12 | 5 |
| 26-Feb - 1-Mar | AutoCAD Exam | |
| 4-Mar - 8-Mar | Inventor Chapters 2 - 3 | 6 |
| 11-Mar - 15-Mar | Inventor Chapters 4 - 5 | 7 |
| 18-Mar - 22-Mar | Spring Break | |
| 25-Mar - 29-Mar | Inventor Chapters 6 - 7 | 8 |
| 1-Apr - 5-Apr | Inventor Chapters 8 - 9 | 9 |
| 8-Apr - 12-Apr | Inventor Chapters 11 - 12 | 10 |
| 15-Apr - 19-Apr | Project | |
| 22-Apr - 26-Apr | Inventor Chapter 14 | 11 |
| 29-Apr - 3-May | Work Week | |
| 6-May - 10-May | Inventor Exam | |
| 13-May - 17-May | Final Project | |