

# Technical Computer Design (CP1) TE231

Mr. Kolkmeyer



#### **Course Information:**

- 1. Technology/Business
- 2. Semester ½ credit
- 3. CP1
- 4. Grades 10,11,12
- 5. Prerequisite: Math grade 75-80% Min.
- ✓ Knowledge of geometry and fractions
- ✓ For more information about the course stop by ITC 1 before or after school.



- Introduction to technical drawing using Solid Edge
   (Solid Edge: high end engineering/design software by Siemens PLM)
- Students will work in the following design areas:
  - Title block layout, lettering, sketching, single-view design, multi-view design, paper model construction and dimensioning tolerances.
- Video examples:

https://www.youtube.com/watch?v=Yk26WwApWrkhttps://www.youtube.com/watch?v=cF16jzYvv\_whttps://www.youtube.com/watch?v=XbgsgKh3k1E

#### **Academic Requirements:**

- 1. Students will complete with detail high level technical drawing problems.
- 2. Students will be assessed over book terminology.
- 3. Students drawing skills will be evaluated.
- 4. Classroom attendance is <u>very important</u>. Many class assignments must be completed during class. Work must be turned in by due date.
- 5. Success in this course is dependent on class attendance and about 3 hours per week outside the classroom studying for tests and/or finishing drawing problems.

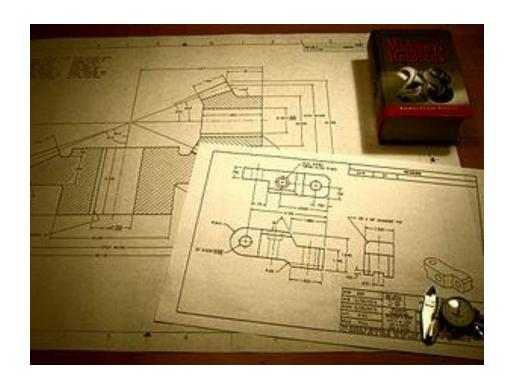


- All students at Moeller should take this Technical Computer Design.
- Any student that likes to build or take apart things should take TE231.
- Today everything that is manufactured has a technical designed drawing behind the process.
- Web sites and further information about Technical Design
- http://www.ustudy.in/node/10221
- <a href="http://www.me.umn.edu/courses/me2011/handouts/drawing/blanco-tutorial.html">http://www.me.umn.edu/courses/me2011/handouts/drawing/blanco-tutorial.html</a>
- <a href="https://bigfuture.collegeboard.org/majors/engineering-technologies-drafting-design-drafting-design-technology">https://bigfuture.collegeboard.org/majors/engineering-technologies-drafting-design-drafting-design-technology</a>



Engineering drawing

http://en.wikipedia.org/wiki/Engineering\_drawing



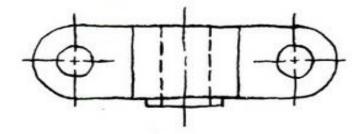


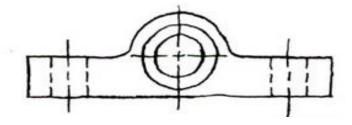
#### Sketching view design

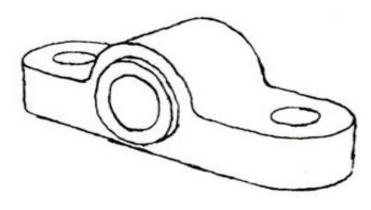
#### Freehand drawing

The lines are sketched without using instruments other than pencils and erasers.

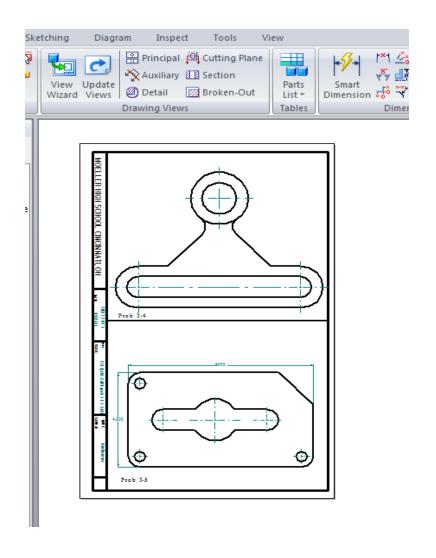
#### Example



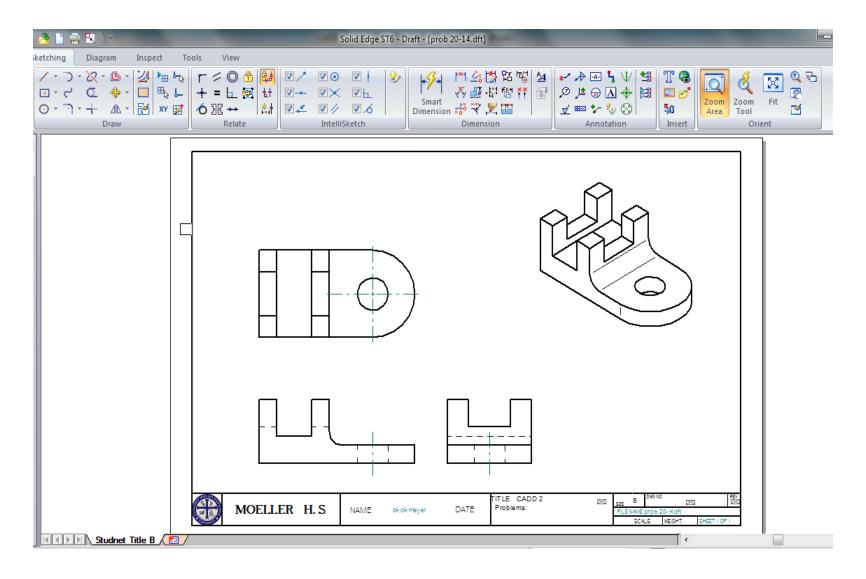




# Single view design using solid edge



## Multi-view design using solid edge



### Multi-view dimensioning tolerances

