

Southwest Minnesota Christian High School's mission is "To challenge students to grow in knowing, loving, and serving God and others."

Mechanical Drawing Syllabus

Course Description:

This course is designed to "Help students learn to visualize in three dimensions, to develop and strengthen their technical imagination, to think precisely, to read and write the language of industry, and to gain experience in making working drawings according to modern commercial practices.: (Mechanical Drawing, French & Svensen, Preface, 1974) With the addition of the section of Sketchup (CAD), students will be able to apply their understanding of the basics of mechanical drawing in a contemporary format.

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Instructional/Assessment Philosophy: Abram had faith and obeyed God.because he was waiting for the eternal city that God had planned and built." Since God himself goes through a planning stage in creation, we also need to become wise and learn to plan and use our imaginations to accomplish our goals beneath the canopy of His kingdom.

Assessment -

Goals and Objectives:

Skills:

Visualize in three dimensions, read and write technical data, make working drawings according to modern practices.

Knowledge:

Students will recognize, understand, and rationally apply concepts as listed in the "Topics Covered" section.

Values:

Students will appreciate the utility of a common language in the technical drawing and production fields. They will embrace the structure of technical drawing and enjoy the confidence it can give them as they use it to plan and build the products of their imagination.

Topics Covered

Sketching

Use and Care of Drafting Equipment

Use of Geometry

Multiview Drawing

Dimensioning

Working Drawings

Pictorial Drawings

Welding Drafting

Use of Sketchup Program

Sample Rubric:

Multiview Drawing

- | | | |
|--|-------|-----|
| 1) Composition – orientation | _____ | (5) |
| 2) Drawing – problem in correct position | _____ | (5) |
| 3) Pencil lines | | |
| a) Overall line weights | _____ | (5) |
| b) Sharp corners | _____ | (5) |
| c) correct line indication | _____ | (5) |
| 4) Placement on board | _____ | (5) |
| 5) Information | | |
| a) Name | _____ | (5) |
| b) Date | _____ | (5) |
| 6) Correct dimensions | _____ | (5) |
| 7) Neatness – | _____ | (5) |

Total

(50)