Computer Technical Drafting

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Course Description
CADD is a prerequisite for this course.*
This course will teach students computer 2D, 3D, and solid modeling techniques used in mechanical drafting. It is also designed to take a closer look at the CADD software. We are going to be learning many more techniques in our CADD program that were not learned in the Introduction to CADD course. The CADD software is used by thousands of engineers who work in the industry today. The class is going to be centered on the careers of engineering and design so, students who are considering any engineering or drafting career should take this course.
Alignment to the Iowa Core Curriculum: Demonstrate a sound understanding of technology concepts, systems, and operations. Demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

COMMENT: Safety glasses are required at all times if anyone is working/using tools/equipment in the room. Safety glasses are required. A fee will be assessed for material consumed for optional projects. If this is a financial burden, please speak to instructor, guidance counselor, or principal. Cost will not prevent a student from involvement in this program. Course may be repeated with additional advanced requirements. It will be the student who develops the skill of accurately drawing a product that can be produced by a manufacturer. Speed is important only after a complete and accurate understanding of what it is that needs to be drawn is accomplished.

Standards
This course is designed in alignment with the Iowa Core Curriculum 21st century technological literacy skills, as well as the ITEA Standards for Technological Literacy.

Assessments
Assessments may include, but not limited to: formative, summative, peer, and self-assessment.

Content
Class topics may include, but not limited to learning/using:
- Properly boot the CAD program and shut it down.
- Exhibit file management skills by properly storing and retrieving their files.
- Produce accurate orthographic drawings.
- Produce accurate isometric drawings from orthographic drawings.
- Display an understanding of dimensioning.
- Output drawings using various printers and plotters available.
- Produce accurate sections from a given drawing.
- Develop auxiliary views for a given drawing.

- Work efficiently and appropriately in a team situation or independent projects.
- 3D printer activities.
- Other drawing program exploration.

Instructional Strategies

Strategies may include, but not limited to: individual, group, assignments, and projects.

Resources

Resources may include, but not limited to: books, demonstrations, websites, and handouts.

Academic/Behavioral Expectations

See General Info attachment.

Grading Plan

See General Info attachment.

Communication Plan

Phone number and email address listed above. Also see General Info attachment.