### **Course Title**

Mechanical Drawing 1A

# **Description of Target Group**

This course is for the 10th, 11th and 12th grade students. Students should have ability in fundamental math and abstract reasoning.

## **Purpose**

The purpose of Mechanical Drawing 1A is to give students an opportunity to explore the area of drafting techniques. This is the first semester of a one year course. A lab fee is required.

# **Standards of Expected Student Achievement**

Upon completion of this course, students will be able to successfully demonstrate the following skills:

- 1. Provide own pencils and erasers.
- 2. Develop fundamentals of lettering, dimensions, line work, layout and use of scale.
- 3. Complete assigned laboratory, clean-up, reading, and written work.
- 4. Understand and use basic drafting terminology.
- 5. Develop an interest in a possible career in the field of drafting.
- 6. Develop freehand fundamentals.
- 7. Develop fundamental skills with drafting equipment.
- 8. Pay all fees pending.
- 9. Develop fundamentals of geometric construction.
- 10. Develop fundamentals of orthographic projection (three-view construction).
- 11. Basic computer skills

### **Instructional Materials**

Text and Supplementary Materials

Refer to: <u>Secondary Adopted Texts and Approved Supplementary Books Used in the Maria Joint Union High School District</u>

### Activities

Individual work, lectures, project construction, demonstrations, audio visual materials, field trips, small group activities, outside resource people, model designing, building, and testing, and computer aided design and drawing.

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Course Title

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Mechanical Drawing 1B

# **Description of Target Group**

This course is for 10th, 11th and 12th grade students. Students should have ability in fundamental math and abstract reasoning. It is recommended that student has completed Mechanical Drawing 1A before enrolling in this course.

## **Purpose**

The purpose of Mechanical Drawing 1B is to give students an opportunity to explore the area of drafting techniques. This is the second semester of a one year course. There is a \$5.00 Shop Fee.

# **Standards of Expected Student Achievement**

Upon completion of this course, students will be able to successfully demonstrate the following skills:

- 1. Develop fundamentals of two dimensional and three dimensional autocad computer aided drawing.
- 2. Develop fundamentals of simple section.
- 3. Develop fundamentals of auxiliary drawings.
- 4. Develop fundamentals of developments and intersections.
- 5. Basic computer skills

### **Instructional Materials**

Text and Supplementary Materials

Refer to: <u>Secondary Adopted Texts and Approved Supplementary Books Used in the Santa</u>
Maria Joint Union High School District

### Activities

Individual work, lectures, project construction, demonstrations, audio visual materials, field trips, small group activities, outside resource people, model designing, building, and testing, and computer aided design and drawing.

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