ENGINEERING DRAFTING
GRADES 11-12
(1 Semester - Prerequisite: Introduction to Computer Aided Drafting)

COURSE OVERVIEW:

Engineering drafting is an advanced course in mechanical drafting. Students will use CAD software to produce working and assembly drawings. There will be several design and constructing projects.

UNITS OF INSTRUCTION:

UNIT I - Introduction

UNIT II - Introduction to Computer Aided Drafting

UNIT III - Sketching

UNIT IV - Multiviews and Auxiliary Views

UNIT V - Dimensioning

UNIT VI - Sections, Revolutions, and Conventional Breaks

UNIT VII - Working Drawings

UNIT VIII - Pictorial Drawings

UNIT IX - Sheet Metal Drafting

STUDENT OUTCOMES:

1.	Students will become familiar with basic machining practices.
2.	Students will create drawings by freehand sketching and by using computer software.
3.	Students will design and construct several engineering projects.

MAJOR LEARNING EXPERIENCES TO ACHIEVE OUTCOMES:

1.	Students will complete various freehand sketches including multiview and pictorial drawings.
2.	Students will complete various CAD mechanical drawings including multiview, auxiliary view, dimensioning, sheet metal fabrication, and sectional view drawings.
	Students will design, build, and fly a kite.
3.	Students will design, build, and test a mousetrap powered vehicle.

4.	Students will construct a ROG airplane.
5.	Students will demonstrate through various assessments an understanding of the concepts and
6.	vocabulary of engineering drafting.

ADOPTED TEXT OR PRINCIPAL MATERIALS USED:

Spencer/Dygdon. *Basic Technical Drawing.* Glencoe Publishing, 2000.

(04/12/00)