

# High School Syllabus

**Department: Technology Education**

**Course #:70700W**

**Grades: 9-12**

**Course Title: INTRO TO ENGINEERING DESIGN, DRAFTING, AND CAD**

**DESCRIPTION OF COURSE:** Take a varied look into the many facets of drafting and computer aided design (CAD). This course will give students a broad-based exposure to skills that will help them become future designers in various fields. Activities include exercises in mechanical drawing, drawing geometry, multi-view projection, and 3-dimensional representation through computer-aided design as well as traditional drawing methods.

REQUIRED TOPICS OF STUDY	SUGGESTED INSTRUCTIONAL TIME	STANDARDS/ ELIGIBLE CONTENT
Drafting Tools	5 Class Periods	3.6.10.B; 3.7.10.A; 3.7.10.B
Basic Drawing Techniques	5 Class Periods	3.6.10.B; 3.7.10.A; 3.7.10.B
Orthographic Views	5 Class Periods	3.6.10.B; 3.7.10.A; 3.7.10.B
Isometric Views	5 Class Periods	3.6.10.B; 3.7.10.A; 3.7.10.B
Solidworks Design Software	20 Class Periods	3.6.10.B; 3.6.10.C; 3.7.10.A; 3.7.10.B; 3.7.10.D; 3.8.10.B
Engineering Design Process	10 Class Periods	
Standard Measurement	2 Class Periods	3.6.10.B; 3.7.10.A; 3.7.10B
Prototyping a Design	10 Class Periods	3.6.10.B; 3.6.10.C; 3.7.10.A; 3.7.10.B; 3.7.10.D; 3.8.10.B
Technical Sketching Techniques	5 Class Periods	3.6.10.B; 3.7.10.A; 3.7.10.B

**RESOURCES** *Computers: AutoCAD 2005 LT / PowerPoint Software, Mechanical Drafting Equipment / Textbooks*

