

Haddon Township High School
Course Overview

Subject Area: Technology Education

Course Name: Drafting Technology I

Summary: In this class students will receive specific instruction in pictorial drawing, dimensioning, detail drawing, section views, auxiliary views, developments and intersections. This course teaches the techniques and procedures that are used to produce drawings that allow certain occupations to follow directions that result in everything that is man-made on this planet. Students will refine perceptual, intellectual, physical, and technical skills through creating and using drafting technology including computer applied drafting software. The planning of the form and function of space, structures, objects, sound and events in also involved.

Unit Title	Student Learning Target	Standards	Resources	Assessment
Unit 1: The Graphic Language	<ul style="list-style-type: none"> • Be able to identify the graphic language universal signs, symbols and abbreviations used in drafting. • Be able to created and complete assignments and drawings throughout the school year by utilizing the above mentioned signs, symbols and abbreviations. <p>Understand the importance of correct</p>	8.2 Technology Education, Engineering, and Design	<p><u>Basic Technical Drawing</u> textbooks</p> <p>Desktop drawing/drafting equipment</p> <p>Drafting table</p> <p>Overhead projector</p> <p>Drafting overhead projector slides</p>	<p>Students will understand concepts, principles and applications for graphic language that will carry over into the course of study for the year. Students will be able to recognize on sight what must be used in certain situations. Importance will be stressed on proper application without over usage when placed on drawings and assignments.</p>

	usage of the graphic language to avoid lost time, supplies and materials when drawings are read and interpreted.			
Unit 2: Mechanical Drawing	<ul style="list-style-type: none"> • Be able to properly identify and use the assigned drafting equipment. • Be able to identify and use the proper leaded pencil for the correct application when preparing a drawing. • Be able to know the difference between different scales that have been presented and how to measure using each one. • Be able to construct and complete an assigned drawing or assignment using either metric or English scale. • Be able to understand and select the correct scale to be used when assigned a drawing if 	8.2 Technology Education, Engineering, and Design	<u>Basic Technical Drawing</u> textbooks Desktop drawing/drafting equipment Drafting table Overhead projector Drafting overhead projector slides	Students will be able to correctly use drafting equipment on different assignments given throughout the school year. When creating drawings, students will properly use the assigned scale (measurement) when creating. Students will be able to properly create a title block that has pertinent information relating to who they are and what they are replicating. Emphasis will be placed on correct line technique, correct use of tools and overall neatness and presentation.

	<p>a scale has not assigned to the class.</p> <p>Be able to recognize and use the correct line when creating a drawing from the Alphabet of Lines.</p>			
Unit 3: Lettering	<ul style="list-style-type: none"> • Be able to create light horizontal construction lines (top and bottom) to contain lettering. • Be able to neatly use proper stroke techniques when making single-stroke upper case gothic lettering. • Be able to letter neatly so as the reader of the drawing can clearly understand what is being stated. • Be able to create all sized lettering 1/8" in size unless otherwise stated. <p>Students will refer to and comply with ANSI standards when applying lettering and numerals to drawings</p>	8.2 Technology Education, Engineering, and Design	<p><u>Basic Technical Drawing</u> textbooks</p> <p>Desktop drawing/drafting equipment</p> <p>Drafting table</p> <p>Overhead projector</p> <p>Drafting overhead projector slides</p>	Students will demonstrate proper lettering skills, strokes and techniques on all assignments (drawings or not) throughout the school year. Students will understand the need for clean, crisp lettering so as to avoid misguided information. All lettering will be done following ANSI standards and line weight (thickness and darkness) will be addressed and stressed.

	throughout the course of the year.			
Unit 4: Geometry of Technical Drawing	<ul style="list-style-type: none"> • Understand the importance of different geometric that are used in technical drawing. • Be able to recognize and use symbols when reading or preparing drawings. • Be able to bisect a line or shape properly using their assigned drafting equipment. • Be able to create geometric shapes within a given circle using correct rule, practices and principles in technical drawing. • Understand the difference between regular and irregular polygons. Be able to complete tasks, assignments and projects throughout the year using proper geometry 	8.2 Technology Education, Engineering, and Design	<u>Basic Technical Drawing</u> textbooks Desktop drawing/drafting equipment Drafting table Overhead projector Drafting overhead projector slides	Students will demonstrate knowledge of geometry in drafting by performing several exercises throughout the chapter that will further evolve as they move through the course. Students will learn the fundamentals of proper equipment identification, use and care while working. Practice sheets, handouts and partial drawings will be assigned and assessed to evaluate student understanding of unit material.

	learned from this unit.			
Unit 5: Views of Objects (Orthographic Projection)	<ul style="list-style-type: none"> • Understand there are six primary views to all three dimensional objects. • Understand that in most cases, three-two dimensional views are required to create an orthographic projected drawing. • Be able to identify the three basic views as front, top and right side. • Understand that machined parts are usually drawn to full scale. • Understand that architectural drawings are usually drawn to quarter scale unless otherwise noted. <p>Be able to construct projection lines in alignment with construction lines when creating an orthographic projected drawing.</p>	8.2 Technology Education, Engineering, and Design	<u>Basic Technical Drawing</u> textbooks Desktop drawing/drafting equipment Drafting table Overhead projector Drafting overhead projector slides	Students will demonstrate knowledge of orthographic projection drawings by preparing and creating drawings from scratch with the proper views. Students will draw orthographic projected drawings to correct scale and proper spacing. Students will follow all rules, practices and principles used as standard in industry. Students will be prepared at units end to be able to add proper dimensioning, notes and callouts as needed.

<p>Unit 6: Dimensioning</p>	<ul style="list-style-type: none"> • Understand the course work needed to be taken to become a graphic designer. • Be able to draw upon past experiences when making career choices. • Be able to report to the class requirements to be accepted to a college program for graphic design. • Be able to use the skills learned in class, throughout the year, to create portfolio worthy projects for college admissions visits. • Be able to understand all the inter-disciplinary subjects involved in the graphic design and advertising industry. 	<p>8.2 Technology Education, Engineering, and Design</p>	<p><u>Basic Technical Drawing</u> textbooks</p> <p>Desktop drawing/drafting equipment</p> <p>Drafting table</p> <p>Overhead projector</p> <p>Drafting overhead projector slides</p>	<p>Students will demonstrate a knowledge of and understanding in learning about graphic design as a career choice. Students will individually present to the class what requirements would need to be taken in high school for acceptance into a graphic design program at an accredited four-year institution. If time allows, we as a class, would contact one or more admissions offices and get material sent to us; thus enhancing the reporting portion of the course. Career exploration will be encouraged and applied.</p>
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