

## **Course Outline**

### **TEC D 107 – Technical Drawing**

Olympic College – Bremerton, WA

#### **WEEK 1**

##### **DAY 1**

- Chapter 1 – **“Introduction to Contemporary Drafting”**
- ~ Syllabus and Course Outline, Scoring
  - ~ Scoring Sheet, Portfolio, Title Block

*Exercises:* **In- Class Exercise 1** – Equipment Exercise

**Assignment:** 1) Problem: Fig 2-38 Divide Title Block into 4 squares  
Draw the 4 pictures on the right side

##### **DAY 2**

- Chapter 2 – **“Drafting Equipment and Supplies”**  
Chapter 3 – **“Sketching and Lettering”**
- ~ Drafting Tool's - Use and Care
  - ~ Free Hand Sketching, Lettering

*Exercises:* **In- Class Exercise 2** – Lettering and Sketching Exercise Handout

**Assignment:** 2) Problems: A - Divide Title Block into 2 squares, draw Figs 3-7 & 3-8  
3) Problems: B - Divide Title Block into 2 squares, draw Figs 3-9 & 3-10

**Extra Credit:** Hand letter **“Required Materials”** on syllabus, worth 10 pts

##### **DAY 3**

- Chapter 2 – **“Drafting Equipment ”**
- ~ How to read and use the Scales

*Exercises:* **In- Class Exercise 3** – Scales and Matching Angles

**Assignment:** 4) Problems: Fig 7-29 (# 3) Draw at 1 ½” scale  
5) Problems: Fig 7-29 (# 6) Draw at 1 ½” scale

##### **DAY 4**

- Chapter 6 – **“Drafting Conventions and Formats”**  
Chapter 9 – **“Dimensioning Conventions”**

*Exercises:* **In- Class Exercise 4** – Geometric Constructions A

**Assignment:** 6) Problems: Fig 7-29 (# 8) Draw at 1 ½” scale  
7) Problems: Fig 7-32 (# 1) Draw at 1” scale

##### **DAY 5**

**“LAB-DAY”**

## WEEK 2

### DAY 1

Chapter 7 – **“Geometric Constructions”**

*Exercises:* **In- Class Exercise 5** – Geometric Constructions B

**Assignment:** 8) Problems: Fig 7-29 (# 4) Draw at 3/4 scale  
9) Problems: Fig 7-5 (# 4) Draw at 20 ENG scale

### DAY 2

Chapter 8 – **“Multi-view Drawings”**

Chapter 15 – **“Pictorial Drawings”**

*Exercises:* **In- Class Exercise 6** – Orthographic Exercise

*Exercises:* **In- Class Exercise 7** – Concentric Circle Ellipse Exercise

**Assignment:** 10 & 11) Problems: Fig 8-50 (right side drawing), Fig 8-51,  
Fig 8-56, Fig 8-60, Fig 8-63, Fig 12-50  
**Pick any 2 of the 6 DWG listed**

### DAY 3

Chapter 11 – **“Sectional Views”**

*Exercises:* **In- Class Exercise 8** – Sectional Views Exercise

**Assignment:** 12 & 13) Problems: Fig 11-26 (# 4), Fig 8-77,  
Fig 11-29 (lower left), Fig 8-58  
**Pick any 2 of the 4 DWG listed**

### DAY 4

Chapter 12 – **“Auxiliary Views”**

*Exercises:* **In- Class Exercise 9** – Isometric Circles Exercise

**Assignment:** 14) Problem: Fig 12-58 (Top, Front, & Auxiliary Views)  
15) Problem: Fig 12-38 (Top, Front, & Auxiliary Views)

### DAY 5

**LAB DAY**

**YOU SHOULD HAVE AT LEAST A TOTAL OF 150 PTS AT THIS TIME TO HAVE A 2.5 AVG BEFORE YOU GO ON BREAK.**

**WEEK 3**

**Descriptive Geometry (TEC D 109)**

**DAY 1**

Chapter 2 – ***“Points and Lines in Space”***

**Topics:** Locating a Point in Space, Line, and  
Locating a Line in Space

Assignment: **Problems 1 thru 5;** Draw any 3 problems in Chapter 2 group

**DAY 2**

Chapter 3 – ***“Auxiliary Views”***

**Topics:** Primary and Secondary Auxiliary Views, and  
Fundamental Views

Assignment: **Problems 1 thru 5;** Draw any 3 problems in Chapter 3 group  
**Extra Credit:** Problem 4

**DAY 3**

Chapter 4 – ***“Lines”***

**Topics:** Types of Lines, True Length of a Line, Bearing of a  
Line, Slope of a Line, Point View of a Line, and  
Locating a Line.

Assignment: **Problems 1 thru 10;** Draw any 5 problems in Chapter 4 group  
**Extra Credit:** Problem 11

**DAY 4**

Chapter 5 – ***“Line Characteristics”***

**Topics:** Locate a Point on a Line, Intersecting Lines, Visibility  
of a Point and a Line, Visibility of Lines, Parallel Lines,  
Perpendicular Lines, and Shortest Distances between  
a Line, Point, and Skewed Lines.

Assignment: **Problems 1 thru 12;** Draw any 6 problems in Chapter 5 group  
**Extra Credit:** Problems 13 & 14

**DAY 5**

***“LAB-DAY”***

## **WEEK 4**

### **DAY 1**

Chapter 6 – “***Planes***”

**Topics:** Formation of Planes, Plane Types, Edge View of a Plane, Locating a True Length Line in the Plane, Bearing (Strike) of the Plane, Slope (Dip) of the Plane, Dip Direction of the Plane, and True Shape of the Plane

Assignment: **Problems 1 thru 10;** Draw any 5 problems in Chapter 6 group  
**Extra Credit:** Problems 11 & 12

### **DAY 2**

Chapter 7 – “***Plane Relationships***”

**Topics:** Shortest Distance from a Point to a Plane, True Angle between two Planes, The angle between a line and plane, and Plane method for solving problems with points and lines.

Assignment: **Problems 1 thru 10;** Draw any 5 problems in Chapter 7 group  
**Extra Credit:** Problems 11 thru 15

### **DAY 3**

Chapter 8 – “***Piercing Points and Intersections of Planes***”

**Topics:** Piercing points of a line and a Plane, The intersection of two planes, and Intersection of a Three-Dimensional object.

Assignment: **Problems 1 thru 6;** Draw any 3 problems in Chapter 8 group  
**Extra Credit:** **Problems 7 thru 9**

### **DAY 4**

***LAB DAY – Setup Manual Drafting Portfolio***

### **DAY 5**

***LAB DAY***