Course Outline
Technical Design 200 – (TEC D 200)
Introduction to Computer Aided Drafting

Week 1

Day 1

General Introduction to TEC-D 200:
Class Roster verification, Syllabus, Course Outline, Verification of Student
Folders on campus server, Windows Interface, AutoCAD Interface.

Introduction to AutoCAD:
General Overview of AutoCAD: Basic Commands (Quick Reference Sheet)
Introduction to Prototype Drawing Templates: Architectural, Decimal, & Metric
Introduction to Sheet Border / Title block: Name, Drawing, Scale
Introduction to File Saving (SAVEAS)
Basic Introduction to Printing / Plotting
*Problems/Graphic Assignments: 1-1
*Dimension: Linear, Aligned

Day 2

Chapter 1 – Getting Started with AutoCAD:
Basic Drawing Techniques: Line, PLine, & Circle,
Coordinate Systems: Cartesian/Rectangular, Absolute, Polar
Object Snap Modes: Endpoint, Midpoint, Center, Node, Quadrant,
Intersection, Extension, Insertion, Perpendicular, Tangent, & Parallel.
Polar and Object Tracking
*Reading Assignment: Chapter 1
*Problems/Graphic Assignments: 1-2, 1-3 & 1-4
*Dimension: Center Marks, Radius, Diameter, Angular

Week 2

Day 1

Chapter 3 – AutoCAD Display and Basic Selection Operations:
Drawing View Magnification: Zoom – all, center, dynamic, extents, previous,
scale, window, & object.
Moving Display: Pan
Wheel Mouse (real-time display): Pan & Zoom In/Out/All
Object Selections: Crossing, Window, Fence, All
*Reading Assignment: Chapter 3
*Problems/Graphic Assignments: 1-5, 1-6 & 1-7

Day 2

Chapter 4 – Modifying Your Drawings:
Basic Modification Commands: Move, Copy, Scale, Rotate, Offset, Fillet,
Chamfer, Trim, Extend, & Break.
Advanced Modification Commands: Array, Mirror, Stretch, Pedit, Explode,
Lengthen, Join, Undo, & Redo.
*Reading Assignment: Chapter 4
*Problems/Graphic Assignments: 4-1, 4-3, 4-4
Week 3

Day 1  

Chapter 4 – Modifying Your Drawings:
Basic Modification Commands: Move, Copy, Scale, Rotate, Offset, Fillet, Chamfer, Trim, Extend, & Break.
Advanced Modification Commands: Array, Mirror, Stretch, Pedit, Explode, Lengthen, Join, Undo, & Redo.
*Reading Assignment: Chapter 4
*Problems/Graphic Assignments: 4-6, 4-8

*Extra Credit: 4-5, 4-10, 4-11, 4-13 & 4-14

Day 2

Chapter 2 – Drawing Setup and Organization:
Drawing Setup: Drawing Units, Grids, and Limits
Layer Properties: Names, Color, Line types, Line weights, Match Properties
Advanced Layer Tools: Isolating, Filtering, & States
*Reading Assignment: Chapter 2
*Problems/Graphic Assignments: TBA

Week 4

Day 1

Chapter 5 – Performing Geometric Constructions:
Constructing Geometric Shapes: Arc, Donut, Ellipse, Mline, Divide, Point, Polygon (inscribed/circumscribed), Ray, Rectangle, Spline, Xline, Angles, Circle (Tan Tan Radius), Boundary, Cloud, Wipeout
*Reading Assignment: Chapter 5
*Problems/Graphic Assignments: 5-1, 5-2, 5-3 & 5-10

*Extra Credit: 5-4, 5-6, 5-7, 5-9

Day 2

Lab Day

Week 5

Day 1

Chapter 6 – Working with Text, Fields, & Tables:
Creating Text in a Drawing: Mtext & Dtext
Text Styles: Create, Modify, & Edit
*Reading Assignment: Chapter 2
*Problems/Graphic Assignments: 5-11, 5-12, 5-13, 5-14
Day 2  
Lab Day

Week 6

Day 1  
Lab / Mid-Term Review:
Lab Time: *This is an opportunity for students to catch up on any assignments that need to be completed.*
Mid-Term Review: *Mid-Term Exam Review*

Day 2  
Mid-Term Exam:
Mid-Term Exam: Approximately 2.5 hours to complete.

For Students who complete Exam early:
*Reading Assignment: *Chapter 7
*Lab Time: *This is an opportunity for students to catch up on any assignments that need to be completed.*

Week 7

Day 1  
Chapter 7 – Object Grips and Changing the Properties of Objects:
Object Grips: *How they are used.*
Properties Palette: *Modifying Objects*
*Reading Assignment: *Chapter 7
Problems/Graphic Assignments: *Tutorial or TBA*

Day 2  
Chapter 8 – Shape Description / Multiview Projection:
Shape Description: *Linetypes, Fillets, Rounds, Chamfers, & Runouts.*
Multi-view Projection: *Front, Side, Top, Bottom, Back/Rear.*
*Reading Assignment: *Chapter 8
*Problems/Graphic Assignments: *8-3, 8-6, 8-9, 8-12, 8-15, 8-18, 8-21 & 8-22

*3D-Solids:* Boundary, Extrude, Isometric Views, Rotate3d, Union, Subtract, Slice, Mview (properties/hidden), Hide, DISPSILH, FACETRES

Week 8

Day 1  
Chapter 8 – Shape Description / Multiview Projection: (Continued)
Shape Description: *Linetypes, Fillets, Rounds, Chamfers, & Runouts.*
Multi-view Projection: *Front, Side, Top, Bottom, Back/Rear.*
*Reading Assignment: *Chapter 8
*Problems/Graphic Assignments: *8-24, 8-25, 8-27, 8-28, 8-29, 8-31, 8-32 & 8-34

*Extra Credit:* 3D-isometric: (3 to 5) items from ch.8
Day 2  Chapter 9 – Creating Section Views:
Section Views: Full, Half, Assembly, Aligned, Offset, Broken, Revolved, Removed, & Isometric Sections.
Hatch and Gradient: Applying Hatch & Gradient Patterns to Drawings
*Reading Assignment: Chapter 9
*Problems/Graphic Assignments: 9-1

*Extra Credit: Paint/Modify Car – Convert to PDF

Week 9
Day 1  Holiday
Day 2  Chapter 9 – Creating Section Views: (Continued)
Section Views: Full, Half, Assembly, Aligned, Offset, Broken, Revolved, Removed, & Isometric Sections.
Hatch and Gradient: Applying Hatch & Gradient Patterns to Drawings
*Reading Assignment: Chapter 9
*Problems/Graphic Assignments: 9-2

*Extra Credit: Download JPG and Trace/Paint image – Convert to PDF

Week 10
Day 1  Chapter 10 – Adding Dimensions to your drawings:
Auxiliary Views: Xlines used to project line of site.
*Reading Assignment: Chapter 10
*Problems/Graphic Assignments: 9-6 & 9-10 (Draw & Fully Dimension)

Day 2  Chapter 11 – Managing Dimension Styles:
Basic Dimensioning: Linear, Aligned, Diameter, Radius, Angular
Dimension Styles: Using Dimension Styles Manager
*Reading Assignment: Chapter 11
*Problems/Graphic Assignments: Extra Credit

Week 11
Day 1  Lab / Final Review:
Lab Time: This is an opportunity for students to catch up on any assignments that need to be completed.
Final Exam Review: Final Exam Review
Day 2

**Final Exam:**
Final Exam: Approximately 2.5 hours to complete.

**Portfolio Due:**
Final Portfolio Due at Beginning of Class.