

THEATRE 3146

Computer Aided Drafting and Design

Tuesday/Thursday 2:00 –4:20
RTFP Design Studio Room 137

Instructor Contact

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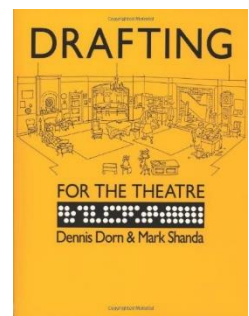
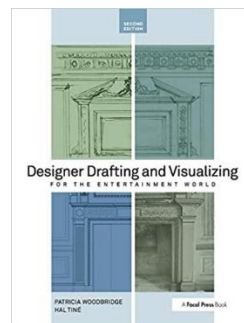
Course Description

Utilizing computer software to assist theatre designers and technicians in presenting design and schematic drawings. Focusing on the basics of drafting, Orthographic projections, how to create ground plans, centerline sections, elevations & details in layouts for production. As well as 3D drafting in fully realized renderings.

Course Objectives

This course will introduce you to the world of computer drafting. Students will explore the basic and advanced techniques used to create a cohesive and complete drawing in order to convey artistic and schematic information to others. Students will learn the process involved in producing a set of drawings specifically for theater and event management, including ground plans, centerline sections, elevations and details. Students will also learn the basics of 3D rendering in presenting their designs. The course will cover:

- Principals of drafting
- Types of drawings
- Orthographic projections
- Image Tracing
- 3D drafting techniques
- 3D texture and lighting application
- 3D Rendering and Environments



Materials

Recommended Reading:

- *Backstage Handbook 4th Edition* by Paul Carter
- *Designer Drafting for the Entertainment World 2nd Edition* by Patricia Woodbridge
- *Drafting for the Theatre 2nd Edition* by Dennis Dorn & Mark Shanda.

Required Materials:

- Architects Scale Rule

- A cloud server or USB flash drive - to save all of your work
- A computer mouse - with a wheel button

Recommended Materials:

- Vector Works (Student License) for your personal computer. Student licenses are free with a student ID.

Class Format

- Tuesday & Thursday class meetings are combination lecture/lab which take place in the department computer lab
 - DFP 127
 - The Lab is open to students outside of class on Monday to Friday from 8:00am – 5:00pm
 - You must have your UNT ID login to access the computers.
- **Lecture:** Student participation in lecture, when asked, is encourage. Attending the lecture is expected. However, things do come up that may take priority, see the class participation section.
- **Lab:** Lab is very participatory. You will be working in the lab practicing the techniques learned in the lecture. Lab should be fun. Please keep a positive attitude and you will be surprised what you can learn. Do not be afraid to ask questions.

Class Participation

- Attendance and participation counts 150 Points towards your final grade
- After 2 unexcused absences 50 points will be removed for each subsequent absence
- 3 tardies (1-15 minutes late) will count as an absence
- If you are more than 15 minutes late you are considered absent

Course Requirements

• Attendance and Participation	150 Points
• Assignments	
○ Drafting objects and tools	50 Points
○ Room Drafting Plan - Hand Drafting	50 Points
○ Baseball Field Project	50 Points
○ Room Drafting Plan - CAD	50 Points
○ Orthographic projections	50 Points
○ Ground plan	50 Points
○ Elevations	50 Points
○ Details and Section	50 Points
○ Sheets & Viewports	50 Points
○ Image tracing	50 Points
○ 3D Objects	50 Points
○ 3D Elevations	50 Points
○ 3D Furniture	50 Points
○ 3D textures and images	50 Points
○ 3D Rendering	50 Points
• Midterm Project	100 Points
• <u>Final Project</u>	<u>100 Points</u>
• TOTAL	1100 Points

Grading

- A = 990-1100
- B = 880-989
- C = 770-879
- D = 660-769
- F = 550-659

Your assignments must be on time. If you are unable to have your work at the start of the class it is due, the grade will drop 50% if turned in within 24 hours. After 24 hours it will not be accepted. This of course will be amended for excused absences.

Course Calendar

Week # DATE	TUESDAY	THURSDAY
1 1/17	CLASS: Syllabus & Objectives, Computer peripherals, Intro to drawings, Basic Drafting techniques.	CLASS: Introduction to Vectorworks, Moving around the drawing, Basic object creation and editing LAB: Drafting basics
2 1/24	CLASS: Basic object creation and editing, Attributes, OIP LAB: Drafting basics continued DUE: Drafting Objects and Tools File (End of Class)	CLASS: Orthographic projections, Basic Viewports, Basic Dimensions, Basic Title block LAB: Orthographic projections DUE: Orthographic projections Project (End of Class)
3 1/31	CLASS: Your first drawing – The baseball field LAB: Baseball field DUE: Room Floor plan hand drafting (beginning of class)	CLASS: Advanced Title blocks, intermediate Viewports, sheet layers LAB: Baseball field project
4 2/7	CLASS: Advanced Dimensions, Section drawings Types of drawings: Ground plan, centerline section. LAB: Room plan DUE: Baseball field Project	CLASS: Types of drawings: Ground plan, centerline section. LAB: Ground plan
5 2/14	CLASS: Organizing your drawing: Classes, Symbols, Groups, Resources Pallett LAB: Project Work DUE: Room Floor plan (beginning of class)	CLASS: Types of drawings: Elevations LAB: Project work DUE: Ground plan Project
6 2/21	CLASS: Viewports advanced, Image Tracing LAB: Project Work DUE: Image Tracing Project (in class project)	CLASS: Details and sections LAB: Project work
7 2/28	CLASS: LAB: Project Work DUE: Elevations	CLASS: General Review for Midterm project LAB: Project work DUE: Detail & Sections Project
8 3/7	LAB: MIDTERM DUE: Midterm project (End of Class)	CLASS: Floating Lecture LAB: Free Lab DUE: Sheets & Viewports Project
9 3/14	SPRING BREAK	SPRING BREAK
10 3/21	CLASS: An introduction to 3D Modeling, Multi view panes, LAB: Project Work	CLASS: 3D modeling and editing LAB: Project Work DUE: 3D Objects Project
11 3/28	CLASS: 3D modeling, Working planes LAB: Project Work	CLASS: Wall tool LAB: Project Work DUE: 3D Elevations project
12 4/4	CLASS: Furniture examples, hybrid symbols, image symbols, symbols library LAB: Project Work	CLASS: LAB: Project Work DUE: 3D Furniture Project
13 4/11	CLASS: 3D Textures and Rendering LAB: Project Work	CLASS: LAB: Project Work DUE: 3D Textures and images Project
14 4/18	CLASS: 3D rendering modes, Visualization, camera setup, walk through mode, perspective views, perspective VPs. LAB: Project Work	CLASS: LAB: Project Work DUE: 3D renderings Project
15 4/25	CLASS: LAB: Final Project Lab	CLASS: LAB: Final Project Lab
15 5/2	CLASS: LAB: Final Project Lab	CLASS: LAB: Final Project Lab
FINAL	Thursday 5/12 1:30 p.m. - 3:30 p.m. FINAL: FINAL PROJECT DUE	

CLASS: Classes and Layers
LAB: Room Ground plan
DUE: Room Ground Plan Project

CLASS: Groundplans & Centerline sections, Image tracing
LAB: Project Work
