



UNIVERSITI TEKNOLOGI MARA

CTB443: CAD AND TECHNICAL DRAWING

Course Name (English)	CAD AND TECHNICAL DRAWING APPROVED
Course Code	CTB443
MQF Credit	3
Course Description	This course is designed to introduce to students the fundamentals of Autodesk's AutoCAD software especially for computer modeling and pre-visualization of Set Design and Lighting Plots. At the conclusion of this course, students will have a project created and AutoCAD office standards outlined. This hands-on course introduces students to the processes, tools, and the efficient use of AutoCAD (Computer Aided Design) software to create Set and Lighting Design projects. Students will understand and practice the skills used to turn thoughts and ideas into a digital format that can be graphically communicated to others. It provides a study of the efficient use of AutoCAD software and the basic elements of technical and theatrical drafting.
Transferable Skills	<p>CREATIVE AND INNOVATIVE: Demonstrate the ability to dream, imagine and visualize</p> <p>INDEPENDENT AND CRITICAL THINKER: Demonstrate ability to apply creative, imaginative and innovative thinking and ideas to problem solving</p>
Teaching Methodologies	Lectures, Blended Learning, Lab Work, Demonstrations, Tutorial, Presentation, Directed Self-learning
CLO	<p>CLO1 Apply Computer Aided Design (AutoCAD) drawings by demonstrating knowledge and understanding of basic drafting content and skills.</p> <p>CLO2 Comply various AutoCAD technique and approach that are commonly used in scenography elements such as scenic design and set construction.</p> <p>CLO3 Demonstrate the advantages of AutoCAD in preparing design plans and how to set up AutoCAD standards for layers, plotting, symbol libraries, and so on by using a proper drafting dimensioning and labeling techniques.</p>
Pre-Requisite Courses	No course recommendations
Topics	
1. Course Briefing - Objective & Requirements	
1.1) Introduction to AutoCAD Program 1.2) Functions, etc	
2. Brief overview of the system Starting the system	
2.1) Creating and Storing a file 2.2) Retrieving file 2.3) 2.4) Commands: 2.5) Scale, Grids, Erase, Cleanup, etc	
3. Technique	
3.1) Command: 3.2) Add Layers, Colours, Tab, Plotter, Changed Tab, etc	
4. Technique	
4.1) Command: 4.2) Copy, Mirror, Enlargement, Dimension, Template, etc. 4.3) 4.4) Submit Hard & Soft Copy	

5. Technique 5.1) Command: 5.2) Perspective / 3D View 5.3) Floor Plan 5.4) Front Elevation 5.5) Side Elevation 5.6) Sightlines
6. Technique 6.1) Continue Command: 6.2) Perspective / 3D View 6.3) Floor Plan 6.4) Front Elevation 6.5) Side Elevation 6.6) Sightlines
7. Individual Drafting Project 7.1) Individual Drafting Project
8. Individual Drafting Project 8.1) Individual Drafting Project
9. Lighting Plots 9.1) Exploring the lighting 9.2) common lighting symbol template
10. Lighting Plots 10.1) Plot out a simple lighting design 10.2) from a hard copy
11. Final Project 11.1) Theatre Space Scale & Setting includes Floor Plan, Front Elevation, Side Elevation and Sightlines
12. Final Project 12.1) Theatre Space Scale & Setting includes Floor Plan, Front Elevation, Side Elevation and Sightlines
13. Final Project 13.1) Theatre Space Scale & Setting includes Floor Plan, Front Elevation, Side Elevation and Sightlines
14. PRESENTATION / SUBMISSION 14.1) Final CAD Design

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Individual Project	Floor Plans	30%	CLO2
	Individual Project	Side Elevation and Sightlines	40%	CLO3
	Lab Exercise	AutoCAD Assignment 1 Exercise	10%	CLO1
	Lab Exercise	AutoCAD Assignment 2 Exercise	10%	CLO1
	Lab Exercise	AutoCAD Assignment 3 Exercise	10%	CLO2

Reading List	Recommended Text
	<ul style="list-style-type: none"> • Ellen Finkelstein, <i>AutoCAD 2007 and AutoCAD LT 2007 Bible</i>, Wiley [ISBN: 0471788864] • Alf Yarwood 2007, <i>Introduction to AutoCAD 2007 2D and 3D design</i>, Elsevier/Newnes Oxford, Eng. [ISBN: 0750681543] • George Omura, <i>Mastering AutoCAD 2002</i>, San Francisco, Calif. ; SYBEX, c2001. [ISBN: 0782140157] • J. Michael Gillette., <i>Theatrical Design and Production: An Introduction to Scene Design and Construction, Lighting, Sound, Costume, and Make-up</i>, New York; McGraw-Hill [ISBN: 0073382221] • Emma Troubridge and Tim Blaikie 2002, <i>Scenic art and construction</i>, Crowood Marlborough [ISBN: 1861264992] • Gary Thorne, <i>Stage Design</i>, Crowood Press, Limited, The [ISBN: 1861262574] • Gwen White 2003, <i>Perspective</i>, B T Batsford London [ISBN: 0713488867] • Jackie Staines, <i>Lighting Techniques for Theatre-in-the-round</i>, Entertainment Technology Press Ltd [ISBN: 9781904031017] • Winslow, Colin 1991, <i>The Oberon Glossary of Theatrical Terms</i>. London.; Oberon Books Limited [ISBN: 1849430918] • Jonnie Patricia Mobley 1992, <i>NTC's dictionary of theatre and drama terms</i>, National Textbook Lincolnwood, Ill. [ISBN: 0844253332]
Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources