هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title: Computer Aided Design (1) (التصميم بالحاسب الآلي)
Course Code: IND 341
Program: Interior Design Program
Department: Architecture Department
College: College of Engineering and Information Technology
Institution: Onaizah Private Colleges
Version: Third Version
Last Revision Date: 2025-05-20

Previous Course Specification
https://drive.google.com/file/d/1nwuDot0zmARwek3s0-_5bpeON9EdgFBO/view

Table of Contents:

A. General information about the course:

Course Identification					
1. Credit hours:	3 Credit Hours [1 Theoretical + 2 Practical]				
2. Course type					
a. University ☐	College ☐	Department ☒	Track ☐	Others ☐	
b. Required ☒	Elective ☐				
3. Level/year at which this course is offered:	Third Level / Second Year				
4. Course general Description This course introduces students to the fundamentals of computer-aided design (CAD) software as a key tool for producing precise interior design drawings. Emphasis is placed on developing digital drafting skills to create accurate two-dimensional architectural representations, including floor plans, elevations, and sections. Students will gain proficiency in using CAD tools to construct, modify, annotate, and organize technical drawings in accordance with industry standards. Through guided exercises and hands-on projects, students will learn to interpret interior design concepts and translate them into clear, professional digital drawings that communicate spatial information effectively. By the end of the course, students will be able to produce well-structured interior design documentation suitable for client presentations, design development, and construction coordination.					
5. Pre-requirements for this course (if any): CSC 105, CSC 111.					
6. Co- requirements for this course (if any): None					
7. Course Main Objective(s) The objective of this course is to develop students' foundational skills in using computer-aided design (CAD) software to create accurate 2D interior design drawings. The course equips students with the ability to produce professional floor plans, elevations, and sections while applying drafting standards, managing layers, and using annotation tools effectively. Students will learn to translate interior design concepts into clear technical drawings that support design development, visual communication, and project coordination.					

1. Teaching mode

No.	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	75	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning	75 (60) (15)	100%
4	Distance learning		

2. Contact Hours (based on the academic semester)

No.	Activity	Contact Hours
1	Lectures	15
2	Laboratory/Studio	60
3	Field	
4	Tutorial	
5	Others (specify)	
Total		**75**

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
IND 341.C LO.K.1	Identify the basic features and functions of CAD software used to produce interior design drawings	K.1(التصميم برنامج Interior الداخلى Design)	Primary: Lecture Additional: Tutorial	Formative: Homework Summative: Student Portfolio
IND 341.C LO.K.2	Compare the basic functions and roles of CAD, BIM, and other digital applications in relation to interior, architectural, and engineering practices	K.1(التصميم برنامج Interior الداخلى Design)	Primary: Lecture Additional: Discussion (or similar active learning strategies \ F2F or Online)	Formative: Homework Summative: Student Portfolio
2.0	**Skills**			
IND 341.C LO.S.1	Create professional 2D interior design drawings, details, and documentation using digital design tools and techniques	S.5(التصميم برنامج Interior الداخلي Design)	Primary: Lab Work/Experiment Additional: Interactive Lecture \ Demonstration	Formative: Practical Assessment (Rubric) Summative: Student Portfolio
IND 341.C LO.S.2	Analyze interior design drawings and digital design solutions to evaluate their	S.3(التصميم برنامج Interior الداخلى Design)	Primary: Project or Research (Individual or Group)	Formative: Presentation (Individual or Group) (Rubric) Summative: Project

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	accuracy, clarity, and design intent.		Additional: Lab Work/Experiment	Assessment (Rubric)
3.0	Values, Autonomy, and Responsibility			
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C. Course Content

No.	List of Topics	Contact Hours
1	- Introduction to Computer-Aided Design: Role in Interior Design, Interface Overview, and Software Setup. Software orientation and interface navigation exercise.	5
2	- Understanding the CAD Workspace: Units, Layers, Drawing Limits, and Navigation Tools. Set up a new drawing file with correct units, layers, and limits.	5
3	- Basic Drawing Tools: Line, Rectangle, Circle, Arc, Polygon, and Polyline. Create basic geometric shapes using different drawing commands.	5
4	- Modify Commands: Trim, Extend, Offset, Copy, and Mirror, Rotate, Move, and Scale. Modify an existing layout using editing tools to reorganize shapes.	5
5	- Drawing with Precision: Object Snaps, Ortho Mode, Polar Tracking, and Grids. Practice drawing accurate lines and shapes using OSNAP and grid tools.	5
6	- Layer Management and Line Types: Organizing Elements in Interior Design Drawings. Assign different elements (walls, furniture, doors) to separate layers with distinct line types. - Floor Plan Development: Creating Walls, Doors, Windows, Furniture, and Circulation Layouts. Draw a full interior floor plan with walls, openings, and furniture.	5
7	- Floor Plan Development: Creating Walls, Doors, Windows, Furniture, and Circulation Layouts. Draw a full interior floor plan with walls, openings, and furniture.	5
8	- Text and Dimensioning Tools: Creating Annotations, Multiline Text, and Dimension Styles. Add room labels and dimensions to a sample plan using annotation tool.	5

	- Hatching Techniques: Representing Interior Materials (Wood, Tile, Fabric, etc.). Apply appropriate hatch patterns to represent materials in plan and elevation views.	
9	Midterm.	5
10	- Drawing Interior Elevations: Wall Features, Cabinetry, Fixtures, and Material Indication. Draft interior wall elevations showing finishes and fixture placement.	5
11	- Drawing Interior Sections and Details: Vertical Relationships, Floor-to-Ceiling Features, and Material Layers. Create a vertical section showing floor levels, ceiling heights, and structural elements.	5
12	- Layout Sheets and Title Blocks: Viewports, Paper Space, Scaling, and Plot Settings. Set up layout sheets with title blocks and scaled viewports ready for plotting.	5
13	- Final Project Development: Assembling a Complete Drawing Set (Plan, Elevation, and Section). Finalize drawing sheets and receive instructor feedback on layout and content.	5
14	- Final Submission and Presentation: Plotting, Reviewing Drawing Sets, and Peer Critique. Submit final project, print to scale, and present to classmates for feedback.	5
15	Final Exam Project.	5
Total		**75**

D. Students Assessment Activities

No.	Assessment Activities*	Assessment Timing (in Week No.)	Percentage of Total Assessment Score
1	Student Portfolio (Final Submission)	15th	15%
2	Project Assessment (Rubric) (Final Submission)	15th	30%
3	Homework	3rd - 12th	30%
4	Practical Assessment (Rubric) (Midterm Submission)	8th	15%
5	Presentation (Individual or Group) (Rubric)	10th	10%
			100%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	- AutoCAD 2019 Instructor: A Student Guide for In-Depth Coverage of AutoCAD's. By: James Leach, Shawna Lockhart, Eric Tilleson
Supportive References	- Autodesk website: AutoCAD tutorials. https://www.autodesk.com/education/home
Electronic Materials	- Autodesk website: AutoCAD tutorials. https://www.autodesk.com/education/home
Other Learning Materials	None.

2. Required Facilities and Equipment

Items	Resources
Facilities (Classrooms, Laboratories, Exhibition Rooms, Simulation Rooms, etc.)	Lecture Hall, Computer Lab.
Technology Equipment (Projector, Smart Board, Software)	Smart Board, Multimedia, Projector. Desktop or Laptop Computer. Autodesk AutoCAD Software.
Other Equipment (Depending on the nature of the specialty)	None.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Peer Reviewer	Direct (peer classroom observation according to the approved Rubric)
Effectiveness of students' assessment	Faculty/Instructor	Direct (analysis of CLOs assessment results and grade distributions)
Quality of learning resources	Students	Indirect (course evaluation survey)
The extent to which CLOs have been achieved	Faculty/Instructor	Direct (CLOs assessment and analysis of results according to CLOs targets)
	Students	Indirect (Students through course evaluation survey)
Commitment to learning and teaching strategies and assessment methods included in the program and course specifications	Peer Reviewer	Direct (Peer- classroom observation according to the approved Rubric in OC-QMS)
	Department Chair through Students Focus Groups	Indirect (Chair – survey questions to a focus group of students according to OC QMS)
Action Plan Continuity (Closing the Loop)	QAC (Quality Assurance Committee)	Direct (periodic review of course reports and submitting comments to course instructor/coordinator)
Instructor's Support to Students	Students	Indirect (course evaluation survey)

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	Department of Architecture Council
REFERENCE NO.	11
DATE	2023-05-09

Learning outcomes of this course, as well as CLOs/Teaching Strategies/Assessment Methods matrix have been evaluated and reviewed by multiple OC parties according to OC-QMS. You can access results of these final reviews by scanning the QR code on the right, which contains a link to the reviews on OC-E-QMS.

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