7/10/2025	DATE	TEC	DIVISION
☑	REQUIRED COURSE	☑	NEW COURSE
☑	ELECTIVE COURSE	☐	REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	BCT-073		**TITLE:** *(30 Characters Max)*		Architectural Design & Layout								
SEM CR HRS:	3.0	**Lecture:**	1.0		**Lab:**	5.0	**ICCB Lab:**	5.0	**ECH:**	6.0			
Course Level:	☐ Gen Ed/IAI ☐ Baccalaureate/Non-IAI ☑ Career/Technical ☐ Dev Ed/Not in Degree Audit				**Clinical Practicum:**	0.0	**Work-based Learning:**	0.0	**WBL ECH:**	0.0			
Course PCS & CIP:	12 - 46.0000		**IAI Code:**		N/A		**Contact Hours (Minutes/Week)**						
Repeatable (Y/N):	N	**Pass/Fail (Y/N):**	N	**Variable Credit (Y/N):**	N	**Min:**		**Max:**		**16 Wks**	300	**8 Wks**	600
Prerequisites:	CAD-056												
Corequisites:	None												
Catalog Description: (40 Word Limit)	Hands-on architectural design course using AutoCAD to create residential and light commercial plans. Students explore layout, codes, energy efficiency, aesthetics and remodeling while producing complete design sets focused on kitchen, baths, modular homes and small commercial spaces.												

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Kitchen and bathroom layouts with code compliance	2	7		
Lighting, electrical, plumbing, parking and emergency safety layout	2	12		
Building remodel and renovation design	3	12		
Floor plan design for multi-room layouts	3	12		
Energy-efficient building applications	2	7		
Site and construction considerations	1	5		
Residential and modular home design	2	15		
TOTAL	15	70	0	0

EVALUATION							
QUIZZES	☑	EXAMS	☐	ORAL PRES	☐	PAPERS	☐
LAB WORK	☑	PROJECTS	☑	COMP FINAL	☑	OTHER	☐

COURSE MATERIALS		
TITLE:	Architectural Drawing and Light Construction	Instructor Resources
AUTHOR:	Muller/Fausett/Grau	
PUBLISHER:	Prentice Hall	
VOLUME/EDITION/URL:	8th edition	
COPYRIGHT DATE:	2009	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Kitchen and bathroom layouts with code compliance	9	1. Design functional kitchen and bathroom layouts using NKBA and plumbing codes. 2. Evaluate clearances, fixture placement and flow for code compliance.
Lighting, electrical, plumbing, parking and emergency safety layout	14	1. Integrate electrical symbols and code based requirements into layout plans. 2. Interpret basic ADA, parking and emergency/safety codes for small commercial projects and basic residential.
Building remodel and renovation design	15	1. Analyze existing floor plans to identify structural and functional limitations in remodel scenarios. 2. Design updated layouts for remodeled spaces that improve flow, function and code compliance.

Floor plan design for multi-room layouts	15	1. Design cohesive multi-room layouts that consider flow and function. 2. Analyze spatial relationships between living areas, service zones and circulation.
Energy-efficient building applications	9	1. Identify energy-efficient features in residential and commercial design. 2. Incorporate sustainable materials and design principles into building layouts.
Site and construction considerations	6	1. Incorporate site orientation, climate and construction feasibility into design choices. 2. Evaluate how new construction factors impact layout and building efficiency.
Residential and modular home design	17	1. Compare standard residential and modular building methods. 2. Select appropriate finishes and palettes based on intended use and client goals.
	85	

Outcomes*	Outcome Title	At the successful completion of this course, students will be able to:
Course Outcome 1	AutoCAD Arch Plans	Create architectural layouts and design plans using AutoCAD, applying relevant codes and standards.
Course Outcome 2	Energy-Effic Spaces	Design efficient residential and light commercial spaces that integrate structural, mechanical and aesthetic elements.
Course Outcome 3	Eval Requirements	Evaluate site, code and client requirements to develop functional and visually cohesive building plans.
Primary Laker Learning Competency	Critical Thinking: Students connect knowledge from various disciplines to formulate logical conclusions.	
Secondary Laker Learning Competency	Professional Skills & Ethics: Students demonstrate professional skills and ethical accountability.	

**Course and program outcomes will be used in the software for outcomes assessment and should include at least 1 primary and 1 secondary Laker Learning Competency. Limit to 3-5.*