

Course Acronym:	ARCH
Course Number:	
	CAD Drawing and Modeling
-	Industry and Technology
Department:	Architecture
Course Disciplines:	Architecture
Catalog Description:	This is a beginning course in the study of Computer Aided Drafting (CAD) and related programs with regard to Architecture. Students learn the application and drawing conventions necessary to produce construction documents and modeling for a building using the latest version of various CAD softwares.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	2
Hours Laboratory (per week):	4
Outside Study Hours:	4
Total Course Hours:	108
Course Units:	3
Grading Method:	Letter Grade only
Credit Status:	Credit, degree applicable
Transfer CSU:	Yes
Effective Date:	Prior to July 1992
Transfer UC:	No
Effective Date:	
General Education: ECC	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	
Student Learning Outcomes:	SLO #1 Commands for Producing Drawings
	Given lecture information, worksheet examples, in-class discussion, and hands-on

C	construction drawings for a small house, using AutoCAD Architectural computer software.
s	SLO #2 Graphic Techniques
C	Successful students, completing the Architecture Program, following instructions, supervised classroom practice using CADD system, will use proper graphic techniques to complete nstructions.
S	SLO #3 Spatial Organization
	Successful students tracking for graduation transfer, and or employment in the architecture field, will create design drawings and design models to show spatial organization.
Course Objectives:	 Create architectural construction documents using the commands in AutoCAD. Appraise and assess each major part of the computer's input and output systems and be able to discuss their use within the system. Compare and contrast different computer software packages that architects use in the design of buildings. Choose names of different elements in the drawings to create layers.
A	I. CAD DRAWING AND MODELING (6 hours, lecture) A. Student contract B. Student projects
A E	II. COMPUTER VOCABULARY (12 hours, lecture) A. Operating system types B. Computer hardware components C. Software commands and prompts
A E C	III. SOFTWARE VOCABULARY (18 hours, lecture) A. Command line B. Menus C. Subroutines
	D. Input and output procedures IV. DESIGN AND MODIFICATION COMMANDS (16 hours lab)
E	A. Geometric shapes B. Modifying data C. Draw and modify menu commands
, v	V. USE OF DIMENSIONS AND TEXT (16 hours, lab)
E	A. Formatting dimension dialog box B. Formatting text dialog box C. Various text commands
р Е	VI. SETTING UP LAYERS IN THE DRAWING FILE (16 hours, lab) A. Naming layers B. Off/on freeze and thawing of layers
	C. Color line type and line thickness settings VII. MODEL SPACE AND LAYOUT SPACE (16 hours, lab)
E	 A. Designing and drawing in model space B. Setting up plotting options in layout space C. Choosing potters and size of printed drawing
A	VIII. ADVANCED TOPICS (8 hours, lab) A. Shortcut techniques to produce construction documents B. Other menus and dialog boxes
C	C. Final drawing presentation

Total Laboratory 22 Total Hours 108 Primary Method 3) Skills demonstration Evaluations Sing AutoCAD, draw an elevation of a stud-framed wall including a door and window using USIAP primary Method Using Primary Method Ising AutoCAD, draw an elevation of a stud-framed wall including a door and window using USIAP primary Method Critical Thinking Draw a floor plan for a single-family residence, including relevant notes, labels, and matrixetor. Critical Thinking Draw a roof framing plan for a single-family residence. Correctly idently structural framing plan tor a single-family residence. Including relevant notes, labels, and direction, sizes and extents. Identify and label structural posts. Submit floor plan to your instructor. Computer generated drawing tests Computer generated drawing tests Computer generated drawing tests Computer generated drawing tests Computer generated drawing tests Study in practice study. Study Problem solving activity Representations George Onura. MASTERING AUTOCAD 2015 LT. Sybek, 2015. Study Sybek, 2015. Requisite and Matching skill (s). Bold Study Requisite solving studies and study. Study. Requisite solving study. Study. Study Study. Requ		
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Enrollment Limitations and Category:	
Enrollment Limitations Impact:	
Course Created by:	Albert Palmer
Date:	09/01/1983
Original Board Approval Date:	
Last Reviewed and/or Revised by:	Dan Richardson
Date:	10/02/2020
Last Board Approval Date:	03/15/2021