

ARCH106 : Building Codes

General Information

Author:	<ul style="list-style-type: none">David D Martin
Course Code (CB01) :	ARCH106
Course Title (CB02) :	Building Codes
Department:	ARCH
Proposal Start:	Spring 2025
TOP Code (CB03) :	(0201.00) Architecture and Architectural Technology
CIP Code:	(04.0901) Architectural Technology/Technician.
SAM Code (CB09) :	Clearly Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000331118
Curriculum Committee Approval Date:	05/22/2024
Board of Trustees Approval Date:	07/16/2024
Last Cyclical Review Date:	05/22/2024
Course Description and Course Note:	ARCH 106 offers students fundamental instruction regarding the use of current, relevant codes and standards required to review and check plans and specifications in compliance with non-structural aspects of the International Building Code (IBC).
Justification:	Mandatory Revision
Academic Career:	<ul style="list-style-type: none">Credit
Author:	

Academic Senate Discipline

Primary Discipline:	<ul style="list-style-type: none">Architecture
Alternate Discipline:	No value
Alternate Discipline:	No value

Course Development

Basic Skill Status (CB08)

Course is not a basic skills course.

Allow Students to Gain Credit by Exam/Challenge

Course Special Class Status (CB13)

Course is not a special class.

Pre-Collegiate Level (CB21)

Not applicable.

Grading Basis

- Grade with Pass / No-Pass Option

Course Support Course Status (CB26)

Course is not a support course

Transferability & Gen. Ed. Options

General Education Status (CB25)

Not Applicable

Transferability

Transferable to CSU only

Transferability Status

Approved

Units and Hours

Summary

Minimum Credit Units (CB07)	3
Maximum Credit Units (CB06)	3
Total Course In-Class (Contact) Hours	54
Total Course Out-of-Class Hours	108
Total Student Learning Hours	162

Credit / Non-Credit Options

Course Type (CB04)

Credit - Degree Applicable

Noncredit Course Category (CB22)

Credit Course.

Noncredit Special Characteristics

No Value

Course Classification Code (CB11)

Credit Course.

Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience

Education Status (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	3	6
Laboratory Hours	0	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	54
Laboratory	0
Studio	0
Total	54
Course Out-of-Class Hours	
Lecture	108
Laboratory	0
Studio	0
Total	108

Time Commitment Notes for Students

No value

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
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No Value	No Value	No Value	No Value
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Pre-requisites, Co-requisites, Anti-requisites and Advisories

Prerequisite

ARCH101 - Drafting And Basic Design (in-development)

Objectives

- Describe the meaning of basic architectural vocabulary terms;
- Demonstrate proficiency in drawing on vellum and in the use of drawing instruments by the completion of various drawing assignments
- Describe limited examples of the use of the International Building Code as it applies to residential construction.

AND

Advisory

ENGL101 - Introduction to College Reading and Composition

Objectives

- Read, analyze, and evaluate a variety of primarily non-fiction readings for content, context, and rhetorical merit with consideration of tone, audience, and purpose.
- Proofread and edit essays for presentation so they exhibit no disruptive errors in English grammar, usage, or punctuation.

OR

Prerequisite

ESL141 - Grammar And Writing IV

Objectives

- Compose a 400 to 450-word thesis-based essay which: (a) summarizes and cites appropriately a reading passage provided as a prompt, (b) includes a clear thesis statement, (c) uses evidence to support the thesis, (d) shows clear organization into an introduction, body, and conclusion, and (e) uses appropriate rhetorical modes such as comparison/contrast, cause/effect, and persuasion in order to support a thesis.

Entry Standards

Entry Standards

Demonstrate control of verb tenses in active and passive voice, gerunds and infinitives, conditionals real and unreal, adjective, noun, and adverb clauses, and transitional expressions.

Course Limitations

Cross Listed or Equivalent Course

Specifications

Methods of Instruction

Methods of Instruction	Lecture
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Methods of Instruction	Discussion
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Methods of Instruction	Multimedia
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Methods of Instruction	Collaborative Learning
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Methods of Instruction	Guest Speakers
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Out of Class Assignments

- Field trip (e.g. a written summary or summaries describing tours of local construction sites, visits to city building departments.)

Methods of Evaluation

Rationale

Exam/Quiz/Test	Chapter quizzes
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Exam/Quiz/Test	Midterm examinations
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Exam/Quiz/Test	Final examination
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Textbook Rationale

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
Ching, Francis and Winkel, Steven R.	Building Codes Illustrated: A Guide to Understanding the 2021 International Building Code	Hoboken: John Wiley	2021	9781119772408

Other Instructional Materials (i.e. OER, handouts)

No Value

Materials Fee

No value

Learning Outcomes and Objectives

Course Objectives

Effectively apply the International Building Code when planning the design of a residential or commercial structure.

Determine construction methods by classification.

Compare and contrast combustible and non-combustible construction methods.

Describe methods of egress to meet requirements of local building departments.

Identify Americans with Disabilities Act (ADA) standards used in architecture.

SLOs

Explain the concepts of the International Building Code (IBC).

Expected Outcome Performance: 70.0

ILOs
Core
ILOs

Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas.

Communicate clearly, ethically, and creatively; listen actively and engage respectfully with others; consider situational, cultural, and personal contexts within or across multiple modes of communication.

Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.

Identify standards used in building construction.

Expected Outcome Performance: 70.0

ILOs Communicate clearly, ethically, and creatively; listen actively and engage respectfully with others; consider situational, cultural, and personal contexts within or across multiple modes of communication.

Core

ILOs

Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.

Explain the purpose of the IBC as it applies to the use of the building.

Expected Outcome Performance: 70.0

ILOs Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas.

Core

ILOs

Communicate clearly, ethically, and creatively; listen actively and engage respectfully with others; consider situational, cultural, and personal contexts within or across multiple modes of communication.

Course Content

Lecture Content

Introduction and Overview (3 Hours)

- Effective use of the International Building Code
- Administration
- Definitions

Use or Occupancy and Area Separations (3 Hours)

- Introduction to occupancy groups
- Concept of a mixed-occupancy building
- Occupancy separations vs. area separations

General Building Limitations (5 Hours)

- Location on property
- Allowable floor area
- Allowable area increases
- Maximum height of buildings and increases
- Fire-resistive substitution
- Mezzanines
- Guardrail heights

Types of Construction (3 Hours)

- Classifications by type of construction
- Non-combustible construction
- Combustible construction

Fire-resistant Material and Construction (12 Hours)

- Introduction and definitions
- Fire-resistive materials and systems
- Protections of structural members
- Projections
- Fire-resistive joint systems
- Insulation
- Fire blocks and draft stops
- Walls and partitions
- Floor ceilings or roof ceilings
- Shaft enclosures
- Usable space under floors
- Fire-resistive assemblies for the protection of openings
- Through-penetration fire stops

Fire Protection Systems (4 Hours)

- Introduction and definitions
- Fire extinguishing systems
- Smoke control
- Smoke and heat venting

Means of Egress (12 Hours)

- General requirements
- Exit signs and exit illumination
- Doors and gates

- Stairways
- Ramps
- The exit access
- Aisles
- Hallways
- Corridors
- The exit
- Exit enclosures
- Exit passageways
- Horizontal exits
- Exit discharge components

Requirements Based on Building Occupancy (4 Hours)

- IBC Code sections A, B, E, F, and M
- IBC Code sections R, S, and U
- IBC Code sections H and I

Special Use and Occupancy (4 Hours)

- Atria
- Office buildings and hotels
- Covered mall buildings
- Stages and platforms
- Motion picture projection rooms
- Other

Accessibility (4 Hours)

- Americans with Disabilities Act
- California Title 24

Total Hours: 54

Additional Information

Is this course proposed for GCC Major or General Education Graduation requirement? If yes, indicate which requirement in the two areas provided below.

No

GCC Major Requirements

No Value

GCC General Education Graduation Requirements

No Value

Repeatability

Not Repeatable

Justification (if repeatable was chosen above)

No Value

Resources

Did you contact your departmental library liaison?

No

If yes, who is your departmental library liaison?

No Value

Did you contact the DEIA liaison?

No

Were there any DEIA changes made to this outline?

No Value

If yes, in what areas were these changes made:

No Value

Will any additional resources be needed for this course? (Click all that apply)

No Value

If additional resources are needed, add a brief description and cost in the box provided.

No Value