CNST A197: CALIFORNIA ENERGY CODE

Item	Value
Curriculum Committee Approval Date	12/02/2020
Top Code	095720 - Construction Inspection
Units	1.5 Total Units
Hours	27 Total Hours (Lecture Hours 27)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

A complete analysis of the California Energy Code. Special local Energy Code ordinances are also covered along with a comparison of the International Energy Code. Explanation of the State's energy and compliance forms. Enrollment Limitation: ARCH A197; students who complete CNST A197 may not enroll in or receive credit for ARCH A197. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Explain the history of the Energy Code governing residential and commercial construction in California, the origins of sustainable construction codes and the environmental and climatic conditions why the state adopted the California Energy Code.
2. Summarize the requirements of the California Energy Code, local ammendments, rules and regulations for the submission and approval of buildiing construction plans/documents in California.
3. Understand the requirements and responsbilities of the Building inspector, HERS Inspector, designer and contractor pertaining to the California Energy Code.

Course Objectives

- 1. Explain the requirements and responsibilities of the building inspector, HERS Inspector, designer and contractor pertaining to the California Energy Code.
- 2. Gain and understanding of the states compliance energy forms.
- 3. Understand the difference in the states climate zone map.
- 4. Understand the meaning of R-value for insulation.
- 5. Gain an understanding of the insulation requirements of the conditioned area.
- 6. Gain an understanding of proper weather stripping installation.

Lecture Content

Energy Use and Consumption Electrical Demand and population growth Energy efficiency and changing and evolving technology Comparing electrical demands of yesterday and today Where electricity comes from and different types of power generation Model Energy Codes Different model energy codes Efficiency ratings and approving agencies. Electrical and Mechanical designing with passive technics. Different types of efficient switches and plugs California Energy Code History of state requirements Californias 16 climate zones. Most and less restrictive areas Local code amendments Mandatory requirements Heating and ventilation requirements Ducting and air leakage. Insulation required Residential Energy Requirements Performance and prescriptive requirements Energy efficiency rating for additions and alterations Interior and exterior lighting requirements Required documentation and reporting Special inspections

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)

Instructional Techniques

1.Detailed multimedia/lectures of each topic covered. 2. Student feedback during each lecture. 3. Detailed illustrative discussions of lecture handout and textbook information.

Reading Assignments

Students will be assigned a weekly reading assignment; approximately 1-2 hours per week.

Writing Assignments

The students will be assigned a research paper on the requirements of the California Energy Code; approximately 10-15 hours over the duration of the course.

Out-of-class Assignments

Students will be assigned a weekly assignment based on assigned reading; approximately 1-2 hours per week.

Demonstration of Critical Thinking

1. Tests and quizzes. 2. Written research paper.

Required Writing, Problem Solving, Skills Demonstration

Students must show proficiency in planning reading for the application of energy requirements, identification of energy components and an overall understanding of the states compliance forms.

Eligible Disciplines

Construction technology: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required International Code Council. California Energy Code, 2016 ed. Whittier: International Code Council, 2016