

Certificate of Achievement: Sustainable Design and Development

Sustainably designed (Green) buildings continue to be the fastest-growing sector of the construction industry in the United States. This growth can be attributed, in part, to third-party voluntary certification systems such as LEED (Leadership in Energy and Environmental Design), which have gained tremendous momentum over the past decade. Similarly, the California Green Building Code (CALGreen), first adopted statewide in 2009, now mandates that a significant portion of commercial and residential construction in California be designed and constructed to meet a new range of sustainable and energy saving measures. In addition, post occupancy energy consumption mandated reviews are now required. Updated versions of the CALGreen code will be adopted by the state on a three year cycle (<http://www.bsc.ca.gov/Home/CALGreen.aspx>).

The design and construction of Green Buildings address the following environmental issues:

- Climate Change
- Resource Depletion
- Water Consumption
- Degradation of ecosystems/habitat
- Indoor Environmental Quality
- Occupant Comfort and Productivity

As a result of the rapidly growing market for green building sector certifications and code compliance documentation, educational resources must adapt to meet the needs of the marketplace and to keep pace with these new sustainable technologies and advancements.

This certificate provides training related to both CalGreen and LEED Certification, thus preparing students to sit for the LEED Green Associate Examination (LEED GA)

Certificate Student Learning Outcome:

Students will be able to demonstrate the knowledge and skills required to work in the green building industry.

Program Requirements:

Units Required: 18

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| ARCHT-200A | Sustainable Development and Environmental Design | Units: 3.0 |
| ARCHT-250 | Introduction to Sustainable Building Certification Systems | 3.0 |

Plus a minimum of twelve units from the following courses:

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| ARCHT-110 | Architectural Drafting | 3.0 |
| ARCHT-140 | Materials and Methods of Construction | 3.0 |
| ARCHT-160 | 2-D CAD for Architecture and Interior Design | 3.0 |
| ARCHT-180 | Codes and Zoning Regulations | 3.0 |
| ARCHT-200B | Design III - Environmental Design Lab | 3.0 |
| CONST-102 | Construction Management Principles | 3.0 |
| CONST-103 | Blue Print Reading for Construction | 3.0 |
| CONST-105 | Construction Estimating Principles | 3.0 |
| WE-186ID | Cooperative Work Experience Education Interior Design | 1.0 - 4.0 |
| ID-111 | Kitchen and Bath Design | 3.0 |
| ID-113 | Interior Design Materials and Specifications | 3.0 |
| SPAN-150 | Beginning Conversational Spanish | 3.0 |
| WATER-120 | Introduction to Water Systems Technology | 3.0 |

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| WATER-132 | Water Supply | 3.0 |
| WATER-135 | Water Quality | 3.0 |

July 15, 2025