

# SUSTAINABLE ENERGY STUDIES (SES)

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## SES 101 INTRODUCTION TO SUSTAINABLE ENERGY STUDIES 3 UNITS

Grade Only  
Recommended Preparation: BUS 211 or ENGL 114 or equivalent or through the Southwestern College multiple measures placement processes; MATH 35 or equivalent or through the Southwestern College multiple measures placement processes.  
Lecture 3 hours  
Offered: ALL  
Studies the growth of the human population and its effects on energy and climate demands with an emphasis on the built environment. [D; CSU]  
(Same as: LNT 101)

## SES 102 INTRODUCTION TO ENERGY GENERATION, DELIVERY, STORAGE, AND EFFICIENCY 3 UNITS

Grade Only  
Lecture 3 hours  
Offered: ALL  
Introduces renewable energy systems and electrical circuit concepts from generation to storage and delivery. Discusses conservation methods for energy efficiency needed to meet California energy policies. [D; CSU]

## SES 105 CALIFORNIA GREEN CODE AND SUSTAINABLE TECHNOLOGIES 3 UNITS

Grade Only  
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.  
Lecture 3 hours  
Offered: ALL  
Emphasizes the proper interpretation of the CAL-Green Building Code and green building technologies. Provides inspectors, designers, and contractors with the latest code requirements and national standards to promote sustainable communities. Includes site planning and development, energy conservation, storm water pollution prevention, and basic sustainability concepts. [D] (Same as: CI 105)

## SES 110 INTRODUCTION TO BUILDING SCIENCE 4 UNITS

Pass/No Pass or Grade is Allowed  
Recommended Preparation: BUS 211 or equivalent or through the Southwestern College multiple measures placement processes; MATH 35 or equivalent or through the Southwestern College multiple measures placement processes.  
Lecture 3 hours, laboratory 3 hours  
Offered: ALL  
Studies the relationship between human biology and the environment as applied to building design. Emphasizes sustainable building design, building information modeling, and passive energy strategies. [D; CSU]

## SES 120 THE ENERGY EFFICIENT BUILDING 3 UNITS

Grade Only  
Recommended Preparation: BUS 211 or equivalent or through the Southwestern College multiple measures placement processes; MATH 35 or equivalent or through the Southwestern College multiple measures placement processes.  
Lecture 2 hours, laboratory 4 hours  
Offered: ALL  
Provides hands-on study of residential and commercial building energy. Includes energy auditing methods of existing homes and new construction. Analyzes residential design and strategies for energy efficiency. Prepares students to take the California H.E.R.S. Level I certification examination. [D; CSU]

## SES 201 BEGINNING BUILDING INFORMATION MODELING 3 UNITS

Pass/No Pass or Grade is Allowed  
Recommended Preparation: ARCH 165 or equivalent.  
Lecture 3 hours  
Offered: ALL  
Introduces Building Information Modeling (BIM), an integrated process built on coordinated information for architectural projects. Improves drawing coordination, enhances accuracy, reduces waste, and enables better-informed decisions. Develops skills in the architectural field using Revit Architecture building information modeling software. [D; CSU]

## SES 205 BUILDING ENERGY ANALYSIS USING BIM 3 UNITS

Grade Only  
Recommended Preparation: RDG 158 or equivalent or through the Southwestern College multiple measures placement processes.  
Prerequisite: ARCH 201 or SES 201 or equivalent.  
Lecture 2 hours, laboratory 4 hours  
Offered: ALL  
Utilizes Building Information Modeling (BIM) in conjunction with energy modeling software to allow designers and developers to create more accurate building energy simulations incorporating performance, sustainability, and cost with respect to reduced environmental impact. [D; CSU]