

CONSTRUCTION AND ENERGY TECHNOLOGY

Contact Information

Division

Business and Technology

Dean

Amy Schulz

Associate Dean

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B 3, Rocklin Campus

Overview

The Construction and Energy Technology curriculum is designed to give students a broad knowledge of the construction and energy industries. Coursework includes job safety, construction skills, work ethics and hands-on laboratory courses to provide trade related skills such as electrical, plumbing, carpentry and photovoltaics. The program provides foundational training for construction management programs as well as training for entry-level employment in the construction industries. The energy and photovoltaics courses provide the fundamental skills needed to excel in an energy sector career. In addition to degree and transfer opportunities, skills certificates are available in the field of photovoltaics.

Construction and Energy Technology Advisory Committee

- Jeff Bailey, Instructor, Roseville High School
- Phil Barnes, Manager, Energy Home Performance, Rocklin
- Jim Bayless, Treasure Homes
- Jon Bertolino, Sacramento Municipal Utility District
- Michelle Bertolino, Roseville Electric
- Jedediah Biagi, Plan It Solar
- Anna Bousouris, Sierra Solar
- Julia Burrows, Valley Vision
- Peter Davis, ATTEI
- Michael Dela Pena, Greentern
- Steve Dolan, Instructor, Roseville High School
- Brett Dotson, SMA-America
- Cheryl Gibson, President, Von-Jac Development, Inc.; Board Member, Placer County Contractors Association, Auburn
- Jim Gragg, SOLAReCITY Electric
- John Hill, Sierra Solar
- Brian Hurd, Hands On Solar
- Darrell Johnson, Pacific Gas and Electric
- Devan Johnson, KW Engineering
- Sue Kateley, CalSEIA
- Rick Larkey, Director, Workforce Development, North State Building Industry Association, Roseville
- Richard Lindstadt, Foresthill High School
- Sue Lunsford, Foresthill High School
- Barbie Lussier-Davis, Owner, Mission West Builders, Cameron Park

- Gil Mathew, Sierra Solar
- Derek Ogden, City of Roseville
- John Orr, Program Consultant, North State Building Industry Association, Roseville
- Steve Paris, Instructor, Del Oro High School, Loomis
- Patrick Remington, Owner, Remington Construction, Auburn
- Jonathan Schwartz, Instructor, Colfax High School
- David Schweickert, Co-owner, Capital City Solar, Roseville
- Erika Schweickert, Co-owner, Capital City Solar, Roseville
- Terry Seabury, Executive Director and CEO, Goweka Solutions, Sacramento
- Terri Shirhall, City of Roseville
- Sam Vanderhoof, Pacific Renewables Group
- Martin Webb, Plan It Solar
- David Weld, Instructor, Oakmont High School, Roseville
- Susan Wheeler, Coordinator, Education Relations, Sacramento Municipal Utility District
- Dan Zeisler, Principal, Chicago Park

Degrees/Certificates

Associate Degrees

Construction Management (p. 1)

Skills Certificates

Construction Basics (p. 2)

Noncredit Certificates Energy Surveying and Lighting Retrofits (p. 2)

Construction Management

AS Degree

The curriculum in Construction Management focuses on providing a broad base of knowledge and skills targeted toward the management of construction operations. The objective of the degree is to provide a foundation for continued study in construction management at a four-year college or university or for employment in the construction industry. The program is oriented toward the practical problems of the construction industry and the curriculum emphasizes subject areas that provide a basis for employment in the industry including business, mathematics and foundational construction courses. Students completing the Construction Management program will find a wide variety of career choices including estimator, construction manager, construction owner, and project manager. For the degree, students must fulfill the following major requirements with grades of "C" or better, complete a minimum of 60 degree-applicable semester units (12 of which must be completed at Sierra College) with a grade point average of at least 2.0, and complete one of the following three general education patterns:

- Sierra College Associate Degree Requirements (<http://catalog.sierracollege.edu/student-resources/general-education/associate-degree-requirements/>);
- California State University General Education Breadth (<http://catalog.sierracollege.edu/student-resources/general-education/california-state-university-general-education-breadth-requirements/>) pattern;
- Intersegmental General Education Transfer Curriculum (IGETC) (<http://catalog.sierracollege.edu/student-resources/general-education/intersegmental-general-education-transfer-curriculum-igetc/>).

Required Courses

Code	Title	Units
CET 0001		1
CET 0005		3
CET 0020		3
CET 0022		3
BUS 0001		3
BUS 0002		3
BUS 0003		3
ECON 0001A	Principles of Macroeconomics	3
ECON 0001B	Principles of Microeconomics	3
MATH 0016A or MATH 0030	Calculus for Social and Life Sciences Analytical Geometry and Calculus I	4
PHYS 0105	General Physics I	4
PHYS 0105L	General Physics I Laboratory	1
Total Units		34

- Identify code compliant construction.
- Demonstrate safety compliance in the construction and energy industries.
- Utilize fundamental building principles to lay out and construct structures and systems.
- Explain the principles of Green Building and prescribe building solutions utilizing emerging technology.

Construction Basics**Skills Certificate**

The Construction Basics Skills Certificate curriculum prepares students to work safely for small to large home builders in a labor role. This skills certificate provides a foundation for students to help employers directly build residential homes. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.

Required Courses

Code	Title	Units
CET 0001		1
CET 0003		3
CET 0005		3
Total Units		7

Energy Surveying and Lighting Retrofits**Noncredit Certificate of Completion**

The Construction and Energy Technology noncredit Certificate of Completion prepares students to work for businesses in residential and commercial energy auditing, electrical wiring and commercial lighting retrofit trade industries.

Required Courses

Code	Title	Units
CET 0800		0
CET 0801		0
CET 0802		0
Total Units		0

Courses

Understanding course descriptions (<http://catalog.sierracollege.edu/student-resources/course-information/understanding-course-descriptions>)

Program Student Learning Outcomes (PSLOs)

- Demonstrate a fundamental understanding of the construction and energy industries and identify career pathways and opportunities.