

Program SLOs Construction

A.S. Degree – Construction, Building Performance and Energy Assessment

Certificate of Achievement – Construction, Building Performance and Energy Assessment, Green Buildings:

Environmental Design, Energy Management and Performance Based Construction

Certificate of Proficiency – Construction, Pre-Apprenticeship

Construction Program Student Learning Outcomes From the 2015 PrOF (Program Review) Update

1	Program Student Learning Outcome (P-SLO)	Career options and goals	<ul style="list-style-type: none"> Summarize Career options in the industry, and formulate initial career goals.
2	Program Student Learning Outcome (P-SLO)	Tools	<ul style="list-style-type: none"> Identify common hand and power tools used in the trades and residential building science, and demonstrate competence in their safe and efficient use.
3	Program Student Learning Outcome (P-SLO)	Analysis of building materials	<ul style="list-style-type: none"> Examine various building materials, and compare their strengths and weaknesses as they relate to structural integrity, sustainability, and environmental impact.
4	Program Student Learning Outcome (P-SLO)	Safety	<ul style="list-style-type: none"> Explain the relevance of the Occupational Safety and Health Administration, and interpret those regulations specific to the construction industry
5	Program Student Learning Outcome (P-SLO)	Building principles	<ul style="list-style-type: none"> Utilize fundamental building principles to layout and construct residential, light carpentry structures
6	Program Student Learning Outcome (P-SLO)	Analysis of Sustainability	<ul style="list-style-type: none"> Understand the principles of Green Building and compare these emerging techniques with traditional production building methods.
7	Program Student Learning Outcome (P-SLO)	Building Performance Testing	<ul style="list-style-type: none"> Perform shell and duct diagnostics, and prescribe measures that can be tested and retested for marked improvement in the energy efficiency of the home.
8	Program Student Learning Outcome (P-SLO)	Occupant Safety and Health	<ul style="list-style-type: none"> Perform Combustion Appliance Safety Inspections, and communicate their importance to the home's occupants.
9	Program Student Learning Outcome	Energy Saving Modeling	<ul style="list-style-type: none"> Use current software applications for the standardized and/or recognized energy modeling, in conjunction with the results from

	(P-SLO)		the data collection and your initial test results.
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A.S. Construction, Building Performance and Energy Assessment Learning Outcomes*

SLO 1	Demonstrate a fundamental understanding of the nature of the construction industry and the career opportunities to choose from.
SLO 2	Define the roles that safety plays in the construction and building performance industries.
SLO 3	Identify common hand and power tools used in the construction and building performance industries and demonstrate competence in their safe and efficient use.
SLO 4	Recognize and interpret various construction drawings in a set of architectural plans.
SLO 5	Utilize fundamental building principles to layout and construct residential structures.
SLO 6	Understand the principles of Green Building and compare these emerging techniques with traditional production building methods.
SLO 7	Perform shell and duct diagnostics, and prescribe measures that can be tested and retested for marked
SLO 8	Perform Combustion Appliance Safety Inspections, and communicate their importance to the home's occupants.
SLO 9	Use current software applications for the standardized and/or recognized energy modeling, in conjunction with the results from the data collection and your initial test results.

Certificate-Construction, Building Performance and Energy Assessment Learning Outcomes*

SLO 1	Define the role that building performance and weatherization play in helping to reduce the demand for energy.
SLO 2	Perform shell and duct diagnostics, and prescribe measures that can be tested and retested for marked improvement in the energy efficiency of the home.
SLO 3	Perform Combustion Appliance Safety Inspections
SLO 4	Use current software applications for the standardized and/or recognized energy modeling, in conjunction with the results from the data collection and your initial test results.
SLO 5	Compare and contrast the combined influences of population growth and industrialization with foreign and domestic energy policies.

Certificate-- Green Buildings Environmental Design, Energy Management and Performance Based Construction Student Learning Outcomes*

SLO 1	Establish meaningful ethical, social and environmental objectives for buildings and communities based on the values of energy and resource conscious design. <ul style="list-style-type: none"> • Compare and contrast societal and economic implications of utilizing renewable and non-renewable energy sources. • Compare and contrast the effect of contextual issues and evaluate their impact on energy consumption, environment and the beneficial experience of interior and exterior spaces.
SLO 2	Identify and articulate issues related to the choice of various building, landscape and environmental systems; ideate responsive solutions; and compare the alternatives in making effective, sustainable decisions. <ul style="list-style-type: none"> • Analyze and calculate energy use to make informed, environmentally-sound and economic choices to satisfy human needs for comfort and aesthetics. • Explain the concepts of resource conservation and waste reduction and make sustainable design choices related to materials and construction. • Develop a comprehensive understanding of green rating systems, livable communities' strategies and the ability to apply these concepts in decision-making.
SLO 3	Demonstrate independent learning, teamwork and continuing education habits that will help to encourage a

lifelong pursuit of knowledge.

- To use a team work process to identify issues, analyze criteria, research and apply learned principles to synthesize solutions to specific design projects.
- To demonstrate habits of visual note making and independent research by developing a sketch and notebook to record learning.

*Developed through the Curriculum Committee approval process.