

# Program SLOs

## Architectural Design Technology

A.S. Degree, Architectural Design Technology—Building Information Modeling (BIM), Interior Building Architecture

Certificate of Achievement, Architectural Design Technology—Building Information Modeling (BIM), Interior Building Architecture, Green Buildings: Environmental Design, Energy Management and Performance Based Construction

### Architectural Design Technology Program Student Learning Outcomes From the 2015 PrOF (Program Review) Update

1	Program Student Learning Outcome (P-SLO)	<b>Critical Thinking and Problem Solving</b>	<ul style="list-style-type: none"> <li>Have the necessary technical/technological knowledge and ability to identify, analyze and solve complex problems in the field of design, engineering and construction of the built environment.</li> </ul>
2	Program Student Learning Outcome (P-SLO)	<b>Communication</b>	<ul style="list-style-type: none"> <li>Have the necessary digital communication skills to convey ideas, designs, construction plans and engineering concepts as it relates to the workplace. Digital communication includes writing, digital documentation, computer modeling, digital fabrication and presentation, and public speaking.</li> </ul>
3	Program Student Learning Outcome (P-SLO)	<b>Collaborative Skills</b>	<ul style="list-style-type: none"> <li>Be able to work successfully as a team member or as an individual.</li> </ul>
4	Program Student Learning Outcome (P-SLO)	<b>Professional Ethics</b>	<ul style="list-style-type: none"> <li>Have the values of ethics and understanding of historical present and future, cultural, human, aesthetic, environmental and social issues to be able to affect creative change.</li> </ul>
5	Program Student Learning Outcome (P-SLO)	<b>Life Long Learning</b>	<ul style="list-style-type: none"> <li>Develop a professional attitude and desire for life-long learning.</li> </ul>

### A.S. Degree—Building Information Modeling & Interior Building Architecture Student Learning Outcomes\*

- SLO 1** Research, evaluate and apply energy conservation, ergonomic considerations, American Disabilities Act (ADA), ecologically sustainable design solution and principles (Green Building/LEED) to design projects.
- SLO 2** Formulate, categorize and identify Green Building/LEED certified materials and systems for use in residential and commercial projects.
- SLO 3** Organize, categorize and illustrate the development of initial models into architectural design documents, individually or through work group methods.
- SLO 4** Demonstrate, summarize and recall visual and verbal note taking methods and apply the information into models and finalized residential and commercial project designs.

**SLO 5** Assess, compose and analyze architectural graphic information effectively to create solutions from a criteria matrix, bubble diagram and block diagramming methods.

**SLO 6** Choose, assemble and distinguish the necessary skills in developing marketable BIM/CADD skills for university transfer and the job market, through measurable methods in project development and presentations.

### **Certificate--Building Information Modeling & Interior Building Architecture Student Learning Outcomes\***

**SLO 1** Research, evaluate and apply energy conservation, ergonomic considerations, American Disabilities Act (ADA), ecologically sustainable design solution and principles (Green Building/LEED) to design projects.

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**SLO 6** Choose, assemble and distinguish the necessary skills in developing marketable BIM/CADD skills for university transfer and the job market, through measurable methods in project development and presentations.

### **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.

- 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.

- 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.