BUILDING INFORMATION AND 3D MODELING CERTIFICATE OF ACHIEVEMENT

This certificate is designed to prepare students for entry-level employment in the fields of architecture, civil engineering, structural engineering, mechanical engineering, electrical engineering, urban planning, interior design, landscape design, manufacturing, construction, and related fields. Computer Aided Drafting (CAD), Rhino, Grasshopper, and REVIT are the primary tools used to produce and present documents in these fields. The built environment reflects society, and it impacts how people live. Therefore, this certificate incorporates contributions from historically underrepresented architects, engineers, urban planners, interior designers, and accessibility advocates.

Code	Title	Units
Required Courses:		
ARCH 105	Design Theories, Methods, and Visualizations	3
ARCH 112	Design Studio I	4
ARCH 102	Digital Design Media Level I	3
ARCH 103	Architectural Rendering and Visual Communication	3
ARCH 202	Digital Design Media Level II	3
Total Units		**16**

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

Program Learning Outcomes

At the completion of this program, students will be able to:

a. Produce, read, and interpret two and three-dimensional design drawings, documents, and project specifications to gain meaningful information.
b. Select and generate appropriate drawing types at relevant scales, and utilizing industry conventions, for a given design problem.
c. Demonstrate the ability to mechanically construct a variety of drawings at appropriate scales utilizing Building Information Management (BIM) and modeling techniques.
d. Construct three-dimensional models using a variety of software and design techniques, and construct a range of views able to communicate design intent.
e. Analyze the impact of a design on historically underrepresented populations and on the environment and climate, and offer design variations to mitigate those impacts.