Architecture and Construction

Pathway: Design/Pre-Construction

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ACPA01.01	Academics	#5: Principles of Design and Pre-Construction	Employ basic methods of data collection and analysis to provide information for projects.	Access research methods available to formulate project planning and problem-solving.	Select and employ proper method for a given project.
				Provide appropriate precedents for development of a project.	Articulate logical rationale for use of chosen precedents.
ACPA02.01	Communications	#5: Principles of Design and Pre-Construction	Work with potential clients.	Give a speech to explain a concept.	Show project plans for visual impact.
					Evaluate customer comprehension.
				Facilitate a variety of clients and agencies.	Identify types of client/agency needs.
					Mediate diversity to meet needs.
ACPA03.01	Systems	#7: Introduction to Architectural Technology	Integrate structural systems, environmental systems, safety systems, building envelope systems and building service systems to design modern buildings.	Assess building systems and their interrelationships to develop design criteria.	Select and integrate building systems.
ACPA03.02	Systems	#7: Introduction to Architectural Technology	Review traditional project phases and various roles within them to plan for and implement phases within a project.	Relate traditional project phases and the various roles within them to a current project.	Work through project phases.
ACPA04.01	Safety, Health, and Environmental	#9: Technical Applications of Design and Pre-Construction	Apply the basic principles of environmental impact to enhance project acceptance and quality.	Evaluate and align sustainable design elements to add value to the project.	Integrate sustainable elements into project designs.
ACPA04.02	Safety, Health, and Environmental	#9: Technical Applications of Design and Pre-Construction	Apply design requirements to accommodate people with varying physical abilities.	Study the Americans with Disabilities Act in order to build compliance into project designs.	Integrate Americans with Disabilities Act compliance into project designs.

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ACPA05.01	Leadership and Teamwork	#9: Technical Applications of Design and Pre-Construction	Appreciate the diversity of needs, values and social patterns in project design.	Identify Western, non-Western, national and regional traditions and heritage to express diversity in project design as required.	Apply cultural traditions and diversity to project design.
ACPA06.01	Technical	#7: Introduction to Architectural Technology #8: Design and Pre-Construction Internship #9: Technical Applications of Design and Pre-Construction	Use drawings and computer-generated plans to develop a technical set of drawings.	Identify client's needs and wants to develop criteria for a set of technical drawings.	Develop a set of technical drawings meeting the client's specifications.
ACPA06.02	Technical	#7: Introduction to Architectural Technology #8: Design and Pre-Construction Internship #9: Technical Applications of Design and Pre-Construction	Employ appropriate representational media to convey essential formal elements.	Use two- and three-dimensional drawings to convey graphic information.	Employ basic drawing skills.
					Show three-dimensions in a two-dimensional drawing.
				Reference drawings and sketches to build models.	Employ basic model building techniques.
					Verify accuracy of model based on drawings and sketches used.
				Use appropriate computer technology to convey graphic information.	Employ basic computer modeling techniques.

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ACPA06.03	Technical	#7: Introduction to Architectural Technology #8: Design and Pre-Construction Internship #9: Technical Applications of Design and Pre-Construction	Study principles, conventions, standards, applications and restrictions pertaining to the manufacture and use of construction materials, components and assemblies to incorporate into project design.	Evaluate and select building materials and assemblies to meet project specifications.	Develop and communicate an assigned building assembly.
				Use appropriate combinations of building materials and components to satisfy the requirements of building programs.	Select the more appropriate building assembly.
ACPA06.04	Technical	#7: Introduction to Architectural Technology #8: Design and Pre-Construction Internship #9: Technical Applications of Design and Pre-Construction	Apply basic organizational, spatial, structural and constructional principles to the design of interior and exterior space.	Develop design alternatives to address a given problem.	Evaluate and select the most appropriate solution.

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