

Research & Design for Pre-Construction (2023)

The following competencies are to be taught within ALL application level courses offered in your school's approved pathway. 0

- 1 Demonstrate an understanding of industry standards for personal safety including the safe use of tools, equipment, and hazardous materials 0.1
- 2 Demonstrate time management skills. 0.2
- 3 Create and utilize employment documents including a resume and portfolio. 0.3
- 4 Demonstrate job seeking and interview skills. 0.4
- 5 Understand and respond to performance reviews. 0.5

Benchmark 1 1

- 1 Work with a client to develop a client- driven product. 1.1
- 2 Produce a working model (graphic or physical) using advanced software and/or equipment. 1.2
- 3 Demonstrate ability to apply shading and rendering techniques to 3d surfaces and solid models. 1.3
- 4 Demonstrate ability to access and utilize industry resources. 1.4
- 5 Use appropriate grammar and word usage in the creation and implementation of a formal graphic presentation using current standards and technology. 1.5
- 6 Apply principles of dimensioning/tolerances, fasteners/hardware, and power transmission. 1.6
- 7 Apply basic principles of environmental impact to enhance project acceptance and quality. 1.7
- 8 Demonstrate ability to apply design requirements for people needing special accommodations. 1.8
- 9 Utilize effective management techniques to organize work flow. 1.9
- 10 Use technology and resources to research licensing certification and credentialing in architecture and construction management. 1.10
- 11 Conduct facility evaluations and critique their effectiveness. 1.11

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- 12** Research new technologies to meet future client needs. 1.12
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- 13** Demonstrate ability to access and utilize industry resources. 1.13
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- 14** Demonstrate abilities in design/planning, visual communication and problem solving in current architectural practices. 1.14
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- 15** Integrate alternative construction methods and materials in current architectural drawings. 1.15
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- 16** Demonstrate ability to use CSI – Construction Specifications Institute’s Uniform Drawing System and Master Format. 1.16
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- 17** Research various methods for obtaining financing for building projects. 1.17
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- 18** Demonstrate ability to incorporate specific codes as given for a selected jurisdiction. 1.18
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- 19** Demonstrate ability to set and work within defined budget. 1.19
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- 20** Research and use information for product development 1.20
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- 21** Manipulate materials and processes to meet client needs. 1.21
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- 22** Demonstrate ability to manage and set project goals and timelines 1.22