

# Practicum in Architectural Design

## Knowledge and skills. PRAC-ARCH

- 1 The student relates communication, mathematics, and science to the requirements of the student's chosen field. The student is expected to:** PRAC-ARCH.1
  - A** demonstrate effective verbal and written communication skills with individuals from varied cultures, including fellow workers, managers, and customers; PRAC-ARCH.1.A
  - B** apply mathematics principles and practices; PRAC-ARCH.1.B
  - C** apply and identify scientific principles used in projects; and PRAC-ARCH.1.C
  - D** read and interpret appropriate schematics, charts, graphs, drawings, construction documents, directions, manuals, bulletins, and regulations. PRAC-ARCH.1.D

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- 2 The student knows the function and application of the tools, equipment, technologies, and materials used in the student's chosen field. The student is expected to:** PRAC-ARCH.2
  - A** identify and select basic materials and processes used in the student's chosen field; PRAC-ARCH.2.A
  - B** use the tools and equipment commonly employed in the student's chosen field in a safe manner; PRAC-ARCH.2.B
  - C** handle and dispose of environmentally hazardous materials used in the student's chosen field in a proper manner; and PRAC-ARCH.2.C
  - D** demonstrate knowledge of new and emerging technologies in the student's chosen field. PRAC-ARCH.2.D

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- 3 The student selects and uses multimedia communication and rendering technology to meet specific architectural design needs. The student is expected to:** PRAC-ARCH.3
  - A** apply multimedia communication and rendering technology to individual or community problems; PRAC-ARCH.3.A
  - B** describe the factors that affect the use and interpretation of communication products; and PRAC-ARCH.3.B
  - C** identify and describe the roles of communication such as informing, persuading, and educating. PRAC-ARCH.3.C

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- 4 The student designs multimedia communication and rendering products using appropriate architectural design processes and techniques. The student is expected to:** PRAC-ARCH.4
- A develop or improve communication products that meet specified needs; and PRAC-ARCH.4.A
  - B maintain a project portfolio that documents architectural projects using a variety of multimedia techniques. PRAC-ARCH.4.B
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- 5 The student produces multimedia communication and rendering products using the appropriate tools, equipment, machines, materials, and processes. The student is expected to:** PRAC-ARCH.5
- A use a variety of tools, equipment, and machines; and PRAC-ARCH.5.A
  - B produce an architectural project using multimedia communication techniques. PRAC-ARCH.5.B
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- 6 The student follows appropriate codes, laws, standards, or regulations. The student is expected to:** PRAC-ARCH.6
- A identify areas where codes, laws, standards, or regulations may be required; PRAC-ARCH.6.A
  - B locate the appropriate codes, laws, standards, or regulations; and PRAC-ARCH.6.B
  - C comply with the appropriate codes, laws, standards, or regulations. PRAC-ARCH.6.C
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- 7 The student demonstrates the ability to solve problems, think critically, and make decisions. The student is expected to:** PRAC-ARCH.7
- A develop or improve a product by following a problem-solving strategy; PRAC-ARCH.7.A
  - B apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and PRAC-ARCH.7.B
  - C apply decision-making techniques. PRAC-ARCH.7.C
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- 8 The student applies communication, mathematics, and science knowledge and skills to job-related activities. The student is expected to:** PRAC-ARCH.8
- A apply written, verbal, and visual communication techniques consistent with industry standards; PRAC-ARCH.8.A
  - B use mathematics concepts in communication technology; and PRAC-ARCH.8.B
  - C identify and apply scientific principles. PRAC-ARCH.8.C
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- 9 The student determines employment opportunities and preparation requirements for careers in the field of architecture. The student is expected to:** PRAC-ARCH.9
- A determine preparation requirements for various levels of employment in a variety of careers; PRAC-ARCH.9.A
  - B analyze the future employment outlook; PRAC-ARCH.9.B

- C describe entrepreneurial opportunities in architecture and related fields; PRAC-ARCH.9.C
  - D determine how interests, abilities, personal priorities, and family responsibilities affect career choice; PRAC-ARCH.9.D
  - E compare rewards and demands for various levels of employment in a variety of careers; and PRAC-ARCH.9.E
  - F determine continuing education opportunities that enhance career advancement and promote lifelong learning. PRAC-ARCH.9.F
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**10 The student demonstrates ethical and legal practices for careers in the architectural-related workplace. The student is expected to:** PRAC-ARCH.10

- A summarize the rights and responsibilities of employers and employees; PRAC-ARCH.10.A
- B exhibit ethical practices as defined by the architectural industry; PRAC-ARCH.10.B
- C analyze legal aspects of the architectural-related workplace; PRAC-ARCH.10.C
- D develop a school-based learning activity in collaboration with the teacher and at least one related mentor that provides an in-depth study of at least one aspect of a selected business, industry, and labor independent study; PRAC-ARCH.10.D
- E present the project in at least two formats such as model, graphic, verbal, or written to a panel of students, teachers, and practitioners in the career concentration; PRAC-ARCH.10.E
- F maintain a project portfolio that documents experience by using graphic or written documentation of architectural-related projects; and PRAC-ARCH.10.F
- G develop and update a professional resume that includes appropriate education history, work history, professional references, letters of recommendation, and all relevant information for any licenses, certifications, and credentials. PRAC-ARCH.10.G