

## Construction Technology

### AAS: Construction Technology Competencies

Upon completion of this program, the graduate can:

#### General Education Competencies:

Students should prepare for twenty-first century challenges by gaining:

- A. Knowledge of human cultures and the physical and natural worlds, through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.
- B. Intellectual and practical skills, including
  - inquiry and analysis
  - critical and creative thinking
  - written and oral communication
  - quantitative literacy
  - information literacy
  - teamwork and problem solving
- C. Personal and social responsibility, including
  - civic knowledge and engagement (local and global)
  - intercultural knowledge and competence
  - ethical reasoning and action
  - foundations and skills for lifelong learning
- D. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.

#### Technical Competencies/Outcomes:

1. Interpret symbols, views, sections, details, and material lists found on architectural working drawings, building materials, specifications lists, and construction dimensioning systems and charts/schedules.
2. Identify the types, grades, sizes, and standards of building materials including the types of fasteners and their correct uses.
3. Utilize and maintain commonly used hand and power tools.
4. Prepare materials, calculate the cost for a building site, and lay out a site with a transit, locating property lines and corners.
5. Calculate the amount of concrete needed for footing and foundation walls and construct different types of foundations and forms.
6. Demonstrate floor framing, lay out and construction of floor frames.
7. Cut and install floor and wall framing members according to plans and specifications.
8. Lay out, cut, and install ceiling joists, rafters, roof decking, and roof coverings.
9. Demonstrate an understanding of basic concepts of building trim, gypsum wallboard, paneling, base, ceiling and wall molding with instruction on acoustical ceilings and insulation, wood floors, tile, inlaid adhesive and tools of the flooring trade.
10. Demonstrate the exterior finishing of a house with emphasis on cost control, speed, and precision.