

Course Description**BCV0123 | Foundation and Form Carpentry | 5.00 credits**

The Foundation and Form Carpentry course teaches students to learn essential skills in site preparation and concrete work, develops expertise in building site layout for excavating footings and foundations, with optional training in trenching for utilities. Students in this course will learn to erect, plumb, and brace simple concrete forms, ensuring proper reinforcement, understand various foundation forms and gain proficiency in both vertical and horizontal concrete formwork construction. Students will explore the placement of reinforcing bars in walls, columns, beams, girders, joists, and slabs for structural integrity, discuss the transportation and placement of concrete, mastering techniques for successful pouring and finishing. After completion of this course, students will be prepared to obtain a job in a rewarding career in the construction industry with practical, hands-on training.

Course Competencies

Competency 1: The student will master site preparation and foundation layout by:

1. Learning essential skills in site preparation to effectively prepare sites for concrete work and foundation construction
2. Developing expertise in building site layouts for excavating footings and foundations to ensure accurate placement and alignment
3. Exploring optional training in trenching for utilities to enhance understanding of site infrastructure requirements

Competency 2: The student will become proficient in concrete formwork construction by:

1. Erecting and bracing simple concrete forms to ensure they are plumb and reinforced adequately for structural integrity
2. Understanding various foundation forms and their applications for vertical and horizontal concrete work
3. Gaining proficiency in constructing concrete formwork to facilitate effective pouring and finishing processes

Competency 3: The student will be mastering concrete placement and finishing techniques by:

1. Reinforcing bars in walls, columns, beams, girders, joists, and slabs enhance the structural integrity of concrete elements
2. Discussing the transportation and placement of concrete to ensure timely and efficient workflow during construction
3. Mastering techniques for successful pouring and finishing of concrete to achieve high-quality results in construction projects

Learning Outcomes:

1. Use quantitative analytical skills to evaluate and process numerical data
2. Solve problems using critical and creative thinking and scientific reasoning
3. Formulate strategies to locate, evaluate, and apply information