Course Information Form (CIF)

Course Code: CCA 218
Course Title: Concrete III

Department: Applied Sciences and Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 46.0402
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 1-2-2
Credit Hour Distribution:

Lecture: 1	Lab: 2	Clinical: 0	**Total: 2**

General Course Information

Catalog Description

Theory and application of equipment used for field layout. Transfer of data from field drawings to the Total Station in the field for layout tasks. Theory and concepts of advanced concrete finishing.

General Course Objectives

Students will be able to explain the theory and application of equipment used for field layout. They will be able to transfer data from field drawings to the Total Station in the field for layout tasks. A variety of layout applications will be emphasized.

Minimum Placement Levels

English	Reading	Math
Placement out of ENG 098	Placement out of CCS 098	Placement into MAT 060

Prerequisites

Credit in CCA 114

Methods of Evaluation

The minimum methods of evaluation include: 4 quizzes, 4 lab exercises, 4 written exams, 1 final exam, and 4 practical exams.

Instructional Materials and Additional Supplies

Fieldworks Operating Manual, (2004), Rev 3.07. Collins T.C., and Panarese W.C. Masonville, CO: XYZ Works.
Concrete Finisher's Guide, Bradley, B.J. (2006). Skokie, Illinois: Portland Cement Association.

Course Content

General Learning Outcomes (GLOs)

- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Concrete Finishing	1. Utilize personal protective equipment used in concrete construction. 2. Identify and state the uses and basic ingredients of concrete. 3. Identify joints used in concrete construction. 4. Recommend proper joint placement for indicated concrete surfaces. 5. List common flatwork applications. 6. Detail the procedure for forming and placing a concrete slab to a given application. 7. Detail the procedures used in finishing concrete. 8. Demonstrate the ability to program, layout, and form the projects to industry standards. 9. Demonstrate the ability to place edges and finish flatwork applications. 10. Demonstrate a proper attitude concerning health and safety in the construction industry.	3	12	0
Total Station	1. Match terms associated with Total Station to their correct definitions. 2. Use a Total Station to lay out a project accurately. 3. Set up, configure, and operate a Total Station with accuracy and precision from several points. 4. Use and configure a data collector. 5. Troubleshoot layout inaccuracies. 6. Safely operate and maintain a Total Station. 7. Convert, transfer, and archive data between a data collector and a computer. 8. Describe the components of a Total Station and their functions. 9. Demonstrate the ability to program, layout, and form the projects to industry standards.	10	18	0
Exams	1. Successfully complete all required exams.	2	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
15	30	0