

Concrete, Masonry, and Framing

Program Length:

900 Total Hours
 200 Lecture Hours
 500 Shop Hours
 200 Externship Hours

Program Description:

This twenty-six (26) week, 900-hour program is designed to help students gain knowledge in concrete, construction, masonry decorations, and framing works. After graduation, a student can start working as a concrete worker, construction assistant or constructor. Students will gain experience and training that include industrial and personal safety, safe operation, and practices for using concrete, frame setup and foundation layout, blueprint reading, interpretation of engineering plans and instructions, basic shop math and concrete mixing skills, wall and floor construction, drainage, and masonry. This program will teach students how to create a resume and help them build up a proper skillset for the industry. This includes written and verbal communications, resume writing, interviewing, budgeting personal finances, and job search and readiness strategies.

Concrete, Masonry, and Framing Program

Course/Number		<u>Clock</u>	<u>Hours</u>	
Lesson	Title	Lecture	Shop	Clock Hours
CTT001	Introduction to Concrete	10	10	20
CTT002	Concrete Safety	20	20	40
CTT003	Blueprint reading and shop math	30	10	40
CTT004	Introduction to foundation	20	80	100
CTT005	Wall Construction	43	168	211
CTT006	Floor Construction	20	40	60
CTT007	Drainage	20	55	75
CTT008	Retrofits and Add-ons	8	32	40
CTT009	Concrete Applications in real life	25	75	100
CTT010	Interviewing Skills and Resume Building	4	10	14
CTT011	Externship	0	200	200
Total:		200	700	900

Program Subjects:

1. Introduction to concreting
2. Concreting Safety
3. Blueprint reading and shop math
4. Introduction to Foundation
5. Wall Construction
6. Floor Construction
7. Drainage
8. Retrofits and Add-on
9. Concreting Applications in Real Life
10. Interviewing Skills and Resume Build up
11. Externship

Certification:

A diploma of completion will be given to each student upon completing the Program. This diploma will be used to show a prospective employer evidence of program completion and the skills attained for successful work in the Concreting, Masonry and Construction industry.

OSHA 30:

Classes will be provided to students in this program at no cost. Certification will be granted and issued at completion of the program.

Course Descriptions – Concreting, Masonry and Framing

CTT001-Introduction to Concrete

In this course students will learn the usage and definition of concreting, gain knowledge of the concreting industry, basic concreting tools and skills. The knowledge gained in this course will provide general information of concreting and wall materials.

CTT002 - Concrete Safety

In this course students will learn the basics of concreting safety, several types of concreting tools, tool handling, and proper techniques to reduce the risk of injury. The knowledge gained in this course will provide a safe working environment and a solid foundation for the concrete workers' success in the workplace.

CTT003 - Blueprint and Math

By gaining the knowledge of shop math, understanding key terminology, and performing base knowledge experiments students will begin to formulate a foundation for concreting. Blueprint reading is an important piece to becoming a professional concrete worker. PTTI students will learn how to accurately read and interpret a blueprint layout and elevation to properly achieve such goals as tasked. While applying such previously learned things as shop math a student will compound that learning by being able to assess drawing scales and dimensions. PTTI students will also learn computer drawings and special views along with other important skill sets to becoming a proficient blueprint reader.

CTT004 - Introduction to Foundation

In this course students will learn basic knowledge of foundations, types of foundations, and the steps to set up and build a foundation. Foundation is an important preparation step in concreting works. The knowledge gained in this course will provide general ideas on how to start a concreting job and give the students a good beginning of the program.

Prerequisite: CTT001, CTT002

CTT005 - Wall Construction

In this course students will learn how to mix concrete and work with it, layout, set up and build a wall out of concrete, build scaffolds to ensure a safe and easy working environment. The knowledge gained in this course will provide professional skills in concreting jobs and help the students able to build up their own concrete works.

Prerequisite: CTT004

CTT006 - Floor Construction

In this course Students will learn upper floor and ground floor construction skills, different types of floors, floor finishes, ventilation, and floor protection methods. The knowledge gained in this course

will provide general ideas on floor construction and help students succeed in their career.

Prerequisite: CTT004

CTT007 - Drainage

In this course students will learn the importance of a dry foundation, principles of drainage, systems of drainage, terms of drainage and construction of drainage, also the students will understand the testing of drains. The knowledge gained in this course will provide general ideas of drainage systems build up for residential and commercial structures, help students prevent the work from being flooded and sunk.

Prerequisite: CTT004

CTT008 – Retrofits and Add-on

In this course students will learn concepts of retrofitting, different retrofit methods, repairing foundations when the structure goes bad, fast footing and foundation build up skills. The knowledge gained in this course will provide students good retrofitting skills and make them understand the necessity and methods to retrofit. This would be an important part of work in their future careers.

Prerequisite: CTT004, CTT005, CTT006, CTT007

CTT009 - Concrete Applications in Real Life

In this course students will learn actual concreting applications in real life. They will be taught about Retaining Wall material choices, Masonry, and Driveway placement. Students would be introduced to real life concreting applications and learn in an industrial environment. After completion of the course, they can be able to handle simple concreting jobs like building a stone sitting wall or placing a concrete walkway, and they will learn about Masonry skills.

Prerequisite: CTT004, CTT005, CTT006, CTT007

CTT010 - Interviewing and Resume

Students will acquire a working knowledge of interviewing skills, teamwork, and management communications to help them secure employment in an entry level position as a concreting technician. PTTI students will be prepared to work professionally and effectively communicate in their work environment upon completion of this course.

Prerequisite: CTT009

CTT011 – Externship

Students will acquire real-time, hands-on, on-the-job education-related experience and apply learned skills as a component of their education. Emphasis will be placed on applying skills learned, working well with other employees, teamwork, and helping companies become more productive. The 200-hour Externship experience will provide students with the opportunity to provide employers high quality standards of work in the concreting, masonry, and framing area.

Prerequisite: CTT010