COMMERCIAL HEAVY CONSTRUCTION (CHC)

CHC 105 Introductory Craft Skills (3)
This course introduces the student to basic safety, construction math, hand and power tools of the trade, basic blueprint reading, communication skills, and basic employability skills. Math and reading will be embedded in the curriculum. Introductory Craft Skills is required for all students entering the Carpentry program. The intent of this course is to introduce the students to the construction trades. It is very important for every student to learn the proper way to conduct themselves while in the shop or on-the-job site. This course will cover shop and job site safety, tool safety, personal protective devices, protective railings, proper storage and handling of construction materials, and construction drawings. This course will follow the NCCER modules for: Basic Safety, Introduction to Construction Math, Introduction to Hand Tools, Introduction to Power Tools, Introduction to Blueprints, Basic Rigging, Basic Communication Skills, and Basic Employability Skills.

CHC 107 Carpentry Basics (2)
This course continues instruction utilizing the NCCER Core Curriculum. Topics include construction drawings, basic rigging, communication and employability skills, and materials handling. Successful completion of CHC 105 and CHC 107 will earn students NCCER Core credential.

CHC 110 Field Safety & Orientation (2)
Through a variety of classroom and/or lab activities the student will explore and demonstrate hazard recognition, signs, signals, barricades, work permits, material handling, specialty work, and health issues related to thE industry. In addition, work zone safety, electric and high voltage issues, fall protection, ladders and scaffolding, lock-out/tag-out, safety inspections and meetings, and how to properly investigate and document an accident are discussed and implemented. Math and reading will be embedded in the curriculum.

CHC 120 Site Layout I (1)
This course introduces the student to site layout and how it applies to commercial sites for building pads and site work. Introduction to the equipment used for site layout of these projects, and common math equations encountered will be addressed. Math and reading are embedded in the curriculum.

CHC 122 Site Layout II (4)
The course will include surveying math, metric system, and conversion between English and metric. Concepts in working with formulas and equations will be an essential component of the course. Students will learn proper use and care for site layout equipment. An introduction to reading of blueprints and specifications are relevant to site layout of various projects. Math and reading are embedded in the curriculum.

CHC 130 Safety Certifications (2)
This course instructs and prepares the student for a certificate in trench safety and competent person training, confined space safety certificate; and the OSHA 30-hour safety certificate. Industry has a high priority and focus on these safety certifications. Math and reading are embedded in the curriculum.

CHC 140 Heavy Highway I (6)
In this course the student will be introduced to the heavy highway trade of trucks and heavy equipment. Course content includes procedures and components of trucks, heavy equipment, below grade construction, earthmoving, plant operations, paving, and structures. Math and reading are embedded in the curriculum.

CHC 150 Heavy Equipment I (5)
This course will prepare the student with technical skills to seek employment as a heavy equipment operator in the equipment operations career field. This course includes instructions and practical operation experience in bulldozers, backhoes, track excavators, skid loaders, motor graders, and dump trucks. Students will also have a working understanding of grade reading, laser level operation, engineering stake interpretations, safety procedures, and equipment maintenance. Math and reading will be embedded within the curriculum.

CHC 180 Pipe Laying I (6)
Through classroom and/or lab experiences, instruction will include proper use of hand and power tools in the pipe laying trade, receiving and inspecting pipe upon arrival on the job site, cutting and fabricating the pipe, discussion of concrete, PVC, and ductile iron pipe, proper elevations, foundations and stabilization, bedding and de-watering practices will be discussed. Math and reading will be embedded in the curriculum.

CHC 195 Class A CDL (1)
This course will provide technical knowledge and skills for the student about various trucks in the 54,000 lb. tag weight and used in construction. Dump trucks will be the primary focus and the student will learn the components of the trucks as well as be instructed on safe operation of the vehicle. Math and reading will be embedded in the program. Pre-and post-trip inspections will be taught along with proper paperwork required in such vehicle. Optional: the student may complete the assessment to obtain the Class A CDL.

CHC 250 Heavy Equipment II (7)
This course will focus on the student's choice of heavy equipment. Application of all heavy equipment safety aspects is required. The training will take the student into more extensive operating procedures and will be tailored to an intermediate experience level. The course plan is progressive as the instructor introduces general maneuvers and the student advances their skill towards skills of greater difficulty and complexity. Students will be encouraged to attempt, practice, and perform simulations to demonstrate their skilled achievements. Math and reading will be embedded within the program.

CHC 255 Heavy Equipment II Application (6)
This laboratory/application course will focus on advancing the skills of the student on heavy equipment. Technical knowledge learned in CHC250 will be applied in this course. With practice, it is the intent that applied skills will improve on various pieces of equipment. Equipment used will consist of bulldozers, backhoes, loaders, track hoes, uni-loaders, and off road trucks. As the student completes each task he/she will move to a more challenging task. The instructor will monitor each task and improvement of student. Tasks are pass or fail. Math and reading will be incorporated in each task as it applies in the field.