

**For More Inquiries about accreditation and continuing education please contact:*

Student Services Department

Studentservices@eascarpenterstech.edu

Phila, DE, Allentown (215) 824-2300 – Edison (732) 372-6020 – Hammonton, Sicklerville (609) 567-5675

PILE DRIVING PROGRAM – YEAR 1

NEW COURSE NUMBER	COURSE TITLE AND DESCRIPTION	CONTACT HOURS
CONT180	INTRODUCTION TO APPRENTICESHIP Apprentices will be introduced to their Instructors, Coordinators and Council Representatives. They will be informed of their benefits and union obligations. A tour of the facility will be given along with an explanation of the rules and regulations. They will also receive safety training.	40
CONT181	INTRODUCTION TO PILE DRIVING This Workshop discusses the roles of our members in a pile driver crew. It addresses the employability skills and the necessary information that an apprentice should know to be a productive member of the crew. Tolls and equipment used in pile driving are defined and the different types of pile are identified.	40
CONT182	WELDING I Students will be introduced to safety while welding and safe oxy acetylene cutting operations. The students will be introduced to the 6010 Welding process as well as our Virtual welding simulator. A working knowledge of the welding shop and equipment will be emphasized.	40
SFHT185	BASIC RIGGING AND CRANE ASSEMBLY SAFETY Students will learn safe selection and inspection of rigging hardware as well as the basic math used in the implantation of proper rigging techniques. Voice and hand signals will be further explained.	40
CONT184	COFFERDAM CONSTRUCTION Participants learn to interpret site plans and perform project layout using transit level and basic math. Course includes hands-on-skill based training in the installation and removal of cofferdams and falsework. Introduces driving sheet pile to close a cofferdam. Emphasis is on safe work practices with attention to industry recognized best practices and efficient work procedures.	32
CONT190	CONSTRUCTION INTERNSHIP I This course consists of paid OJT, internship, or practicum performed in a business, industry, trade, or technical career setting within the student's occupational area. The contact hours experienced through on-the-job training will be verified by an employer or union official and will be placed on the student's record. There are specific competencies from work experience required.	1800
TOTAL		192

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PILE DRIVING PROGRAM – YEAR 2

NEW COURSE NUMBER	COURSE TITLE AND DESCRIPTION	CONTACT HOURS
MATH100	INTRODUCTORY CONCEPTS OF MATHEMATICS This course covers basic treatment of trade math beginning with general math, fractions, decimals, ratios and percentages. Early layout theory in spacing of framing using linear measurements and quantitative material take-off is introduced.	32
CONT185	BRIDGE ABUTMENT PROJCT Participants learn standard procedures for the execution of a bridge abutment project. Course includes hands-on, skills-based training in the installation of false work pile, whalers, sheet pile, pipe pile and introduces basic concrete formwork. Emphasis is on safe work practices with attention to industry recognized best practices and efficient work procedures.	24
CONT186	LAGGING AND DRILLING TIEBACKS Participants learn standard industry procedures for drilling Soldier Pile. Course includes hands-on, skills-based training in the drilling off-beams, proper installation of lagging, tiebacks and properly testing ties. Emphasis is on safe work practices with attention to industry recognized best practices and efficient work procedures.	24
SFHT180	PILE DRIVING SAFETY I Apprentices will be trained in depth on OSHA rules and regulations pertinent to the construction industry. Course will also include detailed training in chainsaw safety.	32
CONT187	WELDING II Instructors will refresh the students in the importance of safety during welding. Students will apply techniques taught in previous welding classes. Emphasis will be on 7018 Welding Electrodes and student progression to welding in the vertical position.	40
CONT188	SEAMANSHIP FOR PILE DRIVERS This workshop is designed to prepare the UBC Pile driver to work in the marine environment. It teaches students how to differentiate among various vessels used in Marine Construction as well as how to work around the equipment on the vessel. It explains how vessels communicate to other vessels and how to maneuver them. This workshop also provides the UBC Pile driver with the information needed to assist with dive operations.	40
CONT199	CONSTRUCTION INTERNSHIP II This course consists of paid OJT, internship, or practicum performed in a business, industry, trade, or technical career setting within the student's occupational area. The contact hours	1800

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experienced through on-the-job training will be verified by an employer or union official and will be placed on the student's record. There are specific competencies from work experience required.

TOTAL 192

PILE DRIVING PROGRAM – YEAR 3

NEW COURSE NUMBER	COURSE TITLE AND DESCRIPTION	CONTACT HOURS
MATH120	INTRODUCTORY CONCEPTS OF TRIGONOMETRY This course focuses on the close relationship between right angle trigonometry and exterior building layout. The course also covers Program Arc layout using Pythagorean Theorem, 3-4-5 right angle layout and arc scribe. Students will also be able to demonstrate units of angular measurement and how it is used for building layout. Finally, the course will cover the Cartesian Coordinate Plane to determine coordinate values for building points.	48
SFHT185	PILE DRIVING SAFETY II Students will be trained in the recognition of confined spaces and dangers associated with them. Students will also be trained in the hazards associated with working in excavations and methods to mitigate those hazards. This will be done using UBC curriculum and OSHA construction standards. During the final session, students will be instructed in the hazards associated with working around pile driving equipment.	32
CONT280	WELDING III Over the course of this training, students will move toward certification in the SMAW process.	32
CONT281	CONCRETE FORMS I Participants learn construction of basic concrete forms typically used by pile drivers. Course includes hands-on, skills-based training in the construction of forms for pile cap and column forms. Emphasis is on safe work practices with attention to industry recognized best practices and efficient work procedure.	32
CONT282	ADVANCED PILE DRIVING Participants learn standard industry procedures for driving pile. Course includes hands on, skills-based training in the driving of H-beams, wood pile, pipe pile and sheet pile. Introduces splice preparation and setting. Emphasis is on safe work practices with attention to recognized best practices and efficient work procedure.	16
CONT283	EXCLUSION AND RETENTION PROCEDURES	32

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	This class explains the different shapes and types of exclusion and retention structures and their uses. All the hardware, material and equipment used in their construction is prescribed. Step by step directions are provided on how to build these structures. Safety issues and precautions are explained for working on both land and water.	
CONT290	CONSTRUCTION INTERNSHIP III This course consists of paid OJT, internship, or practicum performed in a business, industry, trade, or technical career setting within the student's occupational area. The contact hours experienced through on-the-job training will be verified by an employer or union official and will be placed on the student's record. There are specific competencies from work experience required.	1800
	TOTAL	192

PILE DRIVING PROGRAM – YEAR 4

NEW COURSE NUMBER	COURSE TITLE AND DESCRIPTION	CONTACT HOURS
MATH120	INTRODUCTORY CONCEPTS OF TRIGONOMETRY This course focuses on the close relationship between right angle trigonometry and exterior building layout. The course also covers Program Arc layout using Pythagorean Theorem, 3-4-5 right angle layout and arc scribe. Students will also be able to demonstrate units of angular measurement and how it is used for building layout. Finally, the course will cover the Cartesian Coordinate Plane to determine coordinate values for building points.	48
CONT284	WELDING IV Over the course of 40 hours, students will continue to work towards certification in 3G, 4G and 6G position in SMAW, GMAW and FCAW. Students will be shown what code they will be welding to and proper ways to interpret welding symbols and procedures.	40
CONT285	DRILLED SHAFT Participants learn to perform caisson drilling procedures. Course includes hands-on, skills-based training in the installation of mini-pile, micro-pile and helical anchors. Emphasis is on safe work practices with attention to industry recognized best practices and efficient work procedures.	16
SFHT280	HAZWOPER Over the course of 40 hours, students will be trained according to OSHA 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response. Members will be trained to recognize the following: hazardous situations, health and safety procedures, PPE, medical monitoring, hazardous waste	40

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	operations, hazardous materials handling, principles of toxicology, site security, regulate knowledge, Resource Conservation and Recovery Act (RCRA) and technical knowledge.	
SFHT286	RIGGING CERTIFICATION This class is intended to supplement the hand -on experience gained in instruction on rigging techniques and hardware. The class also features safety precautions and practices as well as details on how to properly inspect and care for rigging equipment. The students will be offered an opportunity to become a Certified Rigger/ Signaler after successful completion of the class.	40
CONT287	CONCRETE FORMS II Participants learn construction of advanced concrete forms typically used by the pile driver. Courses include hands-on, skills-based training in the forming construction of pier hammerheads. Emphasis is on safe work practices with attention to industry recognized bestpractices and efficient work procedures.	16
CONT299	CONSTRUCTION INTERNSHIP IV This course consists of paid OJT, internship, or practicum performed in a business, industry, trade, or technical career setting within the student’s occupational area. The contact hours experienced through on-the-job training will be verified by an employer or union official and will be placed on the student’s record. There are specific competencies from work experience required.	1800
	TOTAL	200

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PILE DRIVING PROGRAM – YEAR 5

NEW COURSE NUMBER	COURSE TITLE AND DESCRIPTION	CONTACT HOURS
CONT288	MARINE CONSTRUCTION Participants learn principles of pile driving operations from watercraft. Course includes hands-on, skills-based training on barge mooring, working from float stages, safe boat operations, welding, burning and drilling. Emphasis is on safe work practices with attention to industry recognized best practices and efficient work procedures.	40
CONT289	UNDERWATER WELDING Participants, who are already ADCI certified commercial divers, will be instructed in the basics of underwater welding in the 2F, 3F and 4F position according to AWS D3.6 Underwater Welding Code.	40
CONT291	PILE JACKETING Over the course of 40 hours, participants will learn basics of pile repair. Course includes hands-on, skills-based training in the repair of piles using pile jacketing and plumb posting methods. Emphasis is on safe work practices with attention to industry recognized best practices and efficient work procedures.	40
CONT292	UNDERWATER BURNING Over the course of 40 hours participants will be trained according to ADCI U/W burning procedures. Members will be trained to recognize hazards associated with U/W burning and proper U/W burning techniques.	32
CONT300	CONSTRUCTION INTERNSHIP V This course consists of paid OJT, internship, or practicum performed in a business, industry, trade, or technical career setting within the student's occupational area. The contact hours experienced through on-the-job training will be verified by an employer or union official and will be placed on the student's record. There are specific competencies from work experience required.	1800
TOTAL		152