SMTL COURSE STUDENT LEARNING OUTCOMES

SMTL 101 - Sheet Metal 1st Year Apprenticeship

Students will be able to apply industry safety standards including OSHA 30.

Students will be able to properly prepare sites for a variety of applications using basic mathematics such as addition, subtraction, multiplication, division, fractions, and decimals.

Students will be able to apply existing knowledge with new practical skills gained on the work site.

Students will be able to utilize multiple modes of communication towards enhancing effectiveness in the work environment.

Students will be able to demonstrate basic algebra and the Pythagorean theorem, calculating pressure (psi), applying geometry and apply it to layout problems.

Students will be able to communicate accumulated technical data effectively with co-workers to apply that information toward completion of work assignments.

SMTL 151 - Sheet Metal 2nd Year Apprenticeship

Students will be able to accurately interpret construction blueprints.

Students will be able to use intermediate mathematics in the completion of sheet metal applications, including conversion of fractions and percentages, area calculations, including applied algebra, applied geometry and trigonometry.

Students will be able to, depending on their chosen elective, either: a) use welding equipment and perform a variety of basic applications, or b) perform basic architectural sheet metal work, including flashing, seaming, edging and related procedures on a variety of applications, or c) perform proper basic testing and air balance on projects.

SMTL 201 - Sheet Metal 3rd Year Apprenticeship

Students will be able to demonstrate their understanding of basic HVAC systems and design as they apply to the sheet metal trade.

Students will be able to, depending on their chosen elective, either: a) use welding equipment and perform of intermediate applications, or b) perform intermediate architectural sheet metal work, including seaming, edging and related procedures on a variety of applications, or c) perform intermediate testing and air balance projects.

SMTL 251 - Sheet Metal 4th Year Apprenticeship

Students will be able to demonstrate their understanding of advanced HVAC systems and design as they apply to the sheet metal trade.

Students will be able to demonstrate their understanding of all aspects of job site management.

Students will be able to, depending on their chosen elective, either: a) use welding equipment and perform a variety of advanced applications, or b) perform advanced architectural sheet metal work, including flashing, seaming, edging, and related procedures on a variety of applications, or c) perform advanced testing and air balance on projects.