

## Pipe Trades (PLA) Apprenticeship Curriculum Mapping

### Program Curriculum

A collection of 15 CTS courses has been developed to align with the current Pipe Trades Apprenticeship course. These courses, when combined, cover the First Period technical training content in any of the pipe trades (i.e., gasfitter, plumber, sprinkler systems installer, and steamfitter-pipefitter).

| Alberta Apprenticeship Training Profile<br>First Period            | CTS Course Alignment to Apprenticeship<br>First Period Topics | Assessment |
|--|---|------------|
| Topic  | CTS Course Number and Name                                    |            |
| <b>SECTION ONE – WORKPLACE SAFETY AND RIGGING</b>                  |   |            |
| Safety Legislation, Regulations, and Industry Policy in the Trades | PLA3900: Apprenticeship Safety                                | _____      |
| Climbing, Lifting, Rigging, and Hoisting                           |   | _____      |
| Hazardous Materials and Fire Protection                            |   | _____      |
| Apprenticeship Training Program                                    |   | _____      |
| Pipe Trades' Codes   |   | _____      |
| Electrical Safety  |   | _____      |
| <b>SECTION TWO – TOOLS, EQUIPMENT, AND MATERIALS</b>               |   |            |
| Hand Tools   | PLA3406: Hand and Power Tools                                 | _____      |
| Power Tools  |   | _____      |
| Welded Pipe and Fittings   | PLA3411: Welded Pipe and Fittings                             | _____      |
| Plastic Pipe and Tubes   | PLA3416: Plastic Pipe and Tubes                               | _____      |
| Threaded and Grooved Pipe  | PLA3421: Threaded and Grooved Pipe                            | _____      |
| Tube and Tubing  | PLA3426: Tubes, Tubing, and Valves                            | _____      |
| Valves   |   | _____      |
| Hangers, Supports, and Fasteners                                   | PLA3431: Install and Test Piping Systems                      | _____      |
| Pressure Testing   |   | _____      |
| Pumps  |   | _____      |
| <b>SECTION THREE – METAL FABRICATION</b>                           |   |            |
| Welding Safety   | PLA3436: Welding Safety and Fabrication                       | _____      |
| Welding  | PLA3441: Bracket and Spool Fabrication                        | _____      |
| Brazing and Soldering  | PLA3446: Brazing and Soldering                                | _____      |

| SECTION FOUR – DRAWINGS AND SPECIFICATIONS                |  |       |
|---|--|-------|
| Sketching and Drawing                                     | PLA3451: Sketching and Drawing                               | _____ |
| Single-line Drawing                                       |  | _____ |
| Drawing Interpretation                                    | PLA3456: Interpreting Drawings                               | _____ |
| SECTION FIVE – CALCULATIONS AND SCIENCES                  |  |       |
| Applied Calculations                                      | PLA3461: Pipe Trades Calculations                            | _____ |
| Perimeters, Areas, Volumes, Percentage, and Grade         |  | _____ |
| Volumes and Capacities                                    |  | _____ |
| Piping Offsets  | PLA3466: Piping Offsets and Density                          | _____ |
| Matter, Density, and Relative Density                     |  | _____ |
| Pressure and Atmosphere                                   | PLA3471: Principles of Pressure, Atmosphere, and Electricity | _____ |
| Principles of Electricity                                 |  | _____ |
| CTS COURSES THAT ALLOW STUDENTS ADDITIONAL PRACTICAL TIME |  |       |
|   | PLA3480: PLA Practicum A                                     | _____ |
|   | PLA3485: PLA Practicum B                                     | _____ |
|   | PLA3490: PLA Practicum C                                     | _____ |
|   | PLA3495: PLA Practicum D                                     | _____ |