



Second Period Technical Training

- Steamfitter-Pipefitter -

(8 Weeks @ 30 Hours per Week = 240 hours)

Instructor(s):

Kevin McGladdery

Chair, Metal Trades

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Darren Stacey

Instructor, Steamfitter-Pipefitter

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Brent Hydomako

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Shawn McCurdy

Instructor, Steamfitter-Pipefitter

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Office Hours;

Monday through Friday: 8:00 a.m. – 4:00 p.m.

780-791-4881

Course Description:

In the Second Period Technical Training, you will learn about:

1. Heating Systems
2. Hydronic Heating
3. Rigging Equipment and hoisting Communications
4. Specialty Piping
5. Drawings, Layout and Elevations
6. Gasfitting Fundamentals

Required Textbooks: (available at Keyano College Bookstore approximately 2 weeks prior to start date)

Second Period Steamfitter-Pipefitter Apprenticeship ILMs and 2nd Year Keyano College hand-out package
Alberta Learning
Edmonton: Author, 1998–, SKU 2000308

IPT Pipe trades manual: Keyano college bookstore

Ordinates For 1000 Pipe Intersections: Keyano college bookstore

Steamfitter-Pipefitter Program Supplies (Required for all periods):

- Binders for ILMs
- Lined paper or notebook
- High quality compass set
- Pens, pencils, erasers
- Calculator (with no programmable memory; Casio FX 260 is recommended)
- Tape measure
- Fire resistant coveralls and/or cotton denim jeans/jacket and welding cap or beanie
- Gauntlet type welding gloves
- Welding shield
- Welding helmet with #10 lens and cutting goggles or face shield with #5 lens
- Chipping hammer, tip cleaners, wire brush, striker
- Vise grips (C Clamp Style)
- Ankle high CSA Approved safety boots and non-tinted safety glasses with side shields

Learning Outcomes

Upon successful completion of Section One – *Heating Systems* – you will be able to:

1. Apply scientific fundamentals relating to temperature and heat transfer processes.
2. Apply expansion and contraction control measures on piping systems.
3. Install heat transfer equipment and piping.
4. Perform latent and sensible heat calculations.
5. Perform heat loss calculations to determine equipment selection.
6. Install heat emission units.
7. Apply the principles of buoyancy to equipment submersed in fluids.

Upon successful completion of Section Two – *Hydronic Heating* – you will be able to:

1. Install and maintain hydronic heating systems.
2. Install and maintain hydronic heating boilers.
3. Install and maintain boiler trim.
4. Install and maintain circulators and pumps.
5. Install hydronic heating/cooling systems.
6. Install liquid heating tracing.

Upon successful completion of Section Three – *Rigging Equipment and Hoisting Communication* – you will be able to:

1. Develop a lift plan for hand rigging.
2. Use fibre and wire rope for rigging.
3. Use pulleys and levers for hoisting and lifting materials and equipment.
4. Use slings and hoisting equipment.
5. Use forms of communication for hoisting operations.
6. Use scaffolds and aerial access equipment.

Upon successful completion of Section Four – *Specialty Piping* – you will be able to:

1. Install and maintain plastic and lined piping.
2. Install and maintain fiberglass reinforced plastic (FRP) piping.
3. Install cast iron, ductile iron and glass piping.
4. Install and maintain alloy piping.
5. Install specialty pipe connectors.
6. Apply techniques for pipe bending.

Upon successful completion of Section Five – *Drawings, Layout and Elevation* – you will be able to:

1. Perform trigonometry calculations.
2. Calculate offsets for piping systems.
3. Construct flange and gasket templates.
4. Draw orthographic projections of an object.
5. Fabricate a piping system.
6. Interpret drawing specifications.
7. Locate piping and equipment from a set of drawings. n

Upon successful completion of Section Six – *Gasfitting Fundamentals* – you will be able to:

1. Apply knowledge related to the properties of gas.
2. Install and service gas line components.
3. Use test equipment to service appliances.
4. Service pilots, thermocouples and thermopiles.

Schedule

A detailed daily class / shop schedule will be handed out on the first day of each intake.

Grading

Your grade in this period will be based on:

Exams	85%
Final Exam	15%
THEORY TOTAL	100%

SHOP TOTAL	100%
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Important Phone Numbers

- **Candace Trites, Administrative Assistant** **780-791-4881**
Call Candace if you are going to be absent from class or have any general questions or concerns.
- **Kevin McGladdery, Chair, Metal Trades** **780-791-4900**
Call Kevin if you have any concerns with class work, instructors, or if you need any type of academic accommodations.

Call your instructor if you need information about class work, schedules or if you need extra help to learn the material.
- **Suzanne Beveridge, Alberta AIT** **1-800-248-4823**
Call Suzanne if you have questions about attendance, apprenticeship, or your employer.
- **Security** **780-791-7911**
Call security if you feel threatened while on campus, to report a fire, if you need a door unlocked, or for parking issues.
- **Office of the Registrar**
 - **Registration Assistants** **780-791-4801**
Call this office if you have questions about fees/tuition or class availability.

IMPORTANT NOTICE

Information Regarding Fees and Procedures

If the address listed on your fee assessment sheets is different from your current address, or if your address changes anytime during the duration of your program, please go to the Student Services Centre and fill out the “Change of Address” form as Keyano College requires a current address for you at all times.

Your Student ID cards are available for pick up in the Office of the Registrar. Please have your Student ID # and photo identification available. Apprentices are required to pick up a new Student ID card every Academic Year.

For information on Awards/Bursaries, please contact the Student Services Center either in person or by phone at (780) 791-4894.

Keyano College is a paid parking facility. Parking passes can be purchased at the Cashier's Office when you go to pay your program fees.

Parking Fees: (2019-2020)

2 Weeks	\$12.87
1 Month	\$24.77
2 Months	\$39.63

Please ensure that when you are paying your program fees that you indicate to the Cashier whether or not you would like to purchase a parking pass. Unreserved, General Parking is available in lots A, B, E and F. Lots C and D are reserved staff parking. If you park in a reserved spot, you can be ticketed even if you have a hang tag or daily pass. Please see the campus map for locations of the parking lots.

Please Note:

- It is now your responsibility to submit your E.I. forms on your own time. (HRDC no longer comes to the college)
- You can submit your registration on-line
<http://www100.hrdcdrhc.gc.ca/ae-ei/dem-app/english/home2.html>
- Or link from <http://www.servicecanada.gov.ca>

CLEARWATER CAMPUS MAP

For classroom MAPS please refer to
SAKC STUDENT HANDBOOK

