



## **First Period Technical Training**

### **- Industrial Mechanic (Millwright) -**

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

## Instructor(s):

### **Craig Cail – Chair / Instructor**

780-715-3902

[Craig.Cail@keyano.ca](mailto:Craig.Cail@keyano.ca)

### **Tom MacLellan – Instructor**

780-792-5075

[Tom.MacLellan@keyano.ca](mailto:Tom.MacLellan@keyano.ca)

### **Terry Seaward – Instructor**

[Terry.Seaward@keyano.ca](mailto:Terry.Seaward@keyano.ca)

780-791-4909

### **Office Hours:**

Monday through Friday: 8:00 am to 4:00 pm

## Course Description:

In the First Period Technical Training you will learn about:

1. Safety, Rigging, Cranes and Hoists
2. Measurement, Layout and Metallurgy
3. Tools and Fasteners
4. Machining
5. Machine Installation and Alignment
6. Math and Print Reading

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

*First Period Millwright Apprenticeship ILMs* w/supplemental texts

Alberta Learning

Edmonton: Author, 1998–, SKU 2001307

## Industrial Mechanic (Millwright) Program Supplies (Required for all periods):

- 3-ring binders, dividers, and lined paper
- 6 or 12 inch ruler
- Pens, pencils, highlighters, erasers
- Calculator (with no programmable memory; Casio FX 260 is recommended)
- Coveralls or smock
- CSA approved safety boots
- Safety Goggles with side shields
- Work gloves

## Learning Outcomes

### **Upon successful completion of Section One – *Safety, Rigging, Crane and Hoists* - you will be able to**

1. Describe legislation, regulations and practices intended to ensure a safe work place in this trade.
2. Describe the use of personal protective equipment (PPE) and safe practices for climbing, lifting, rigging and hoisting in this trade.
3. Describe the safety practices for hazardous materials and fire protection in this trade.
4. Describe rigging and hoisting equipment and procedures.
5. Describe cranes and hoists for lifting and moving objects.

### **Upon successful completion of Section Two – *Measuring, Layout and Metallurgy* - you will be able to**

1. Describe measuring fundamentals for the Industrial Mechanic (Millwright) trade.
2. Demonstrate measuring procedures used in the Industrial Mechanic (Millwright) trade.
3. Describe layout procedures and tools.
4. Describe composition and properties of metals.

### **Upon successful completion of Section Three – *Tools and Fasteners* - you will be able to**

1. Demonstrate use and maintenance of hand tools.
2. Demonstrate and maintain portable power and air tools.
3. Demonstrate and maintain grinders.
4. Demonstrate and maintain power saws.
5. Demonstrate explosive actuated tools, loads and fasteners.
6. Demonstrate use of threaded fasteners and locking devices.
7. Demonstrate use of non-threaded fasteners and locking devices.
8. Describe installation and removal of fasteners.

### **Upon successful completion of Section Four – *Machining* - you will be able to**

1. Demonstrate procedures for operating drilling machines.
2. Demonstrate procedures for operating milling machines.
3. Describe lathe components and accessories.
4. Demonstrate procedures for operating lathes.

### **Upon successful completion of Section Five – *Machine Installation and Alignment* - you will be able to**

1. Describe machine levelling, anchoring and grouting procedures.
2. Demonstrate rim and face shaft alignment.

### **Upon successful completion of Section Six – *Math and Print Reading* - you will be able to**

1. Perform mathematical operations with whole numbers.
2. Solve problems involving fractions and decimals.

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3. Perform mathematical operations using algebra.
4. Solve problems involving measurement and conversion.
5. Solve problems using ratio and proportion, graphs and tables.
6. Solve problems involving special triangles and elementary trigonometry.
7. Interpret prints, drawings and sketches.
8. Read and interpret drawings containing limits, fits, tolerances and allowances.

### Schedule

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

### Grading

Apprentices must successfully meet three criteria to pass technical training.

1. Minimum 65% Theory Component (cumulative weighted average)
2. Minimum 65% on each Practical Component
3. Minimum 50% on every section of study.

Safety, Rigging, Crane & Hoist	13%
Measure, Layout & Metallurgy	14%
Tools & Fasteners	15%
Machining	27%
Machine Installation & Align	10%
Math & Print Reading	21%
<b>Total Theory Component</b>	<b>100%</b>
Lab/Shop	100%
<b>Total Practical Component</b>	<b>100%</b>

## 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.*
  
- **Craig Cail, Construction Trades Chair** **780-715-3902**  
*Call Craig 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** **780-791-4911**  
*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.*
  
- **Student Life Calendar** <https://calendar.keyano.ca/student/>  
*Refer to the Student Life calendar for events and important dates for students.*

## **IMPORTANT NOTICE**

### **Information Regarding Fees and Procedures**

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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 at 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

