



Maintenance Worker

Bio-economy Skills At-a-Glance



Building skills for Canada's bio-economy

About BioTalent Canada™

Helping Canada's Bio-economy thrive globally

Canada is a world leader in biotechnology—the application of living organisms to industrial, agricultural, medical and other processes and products. To maintain and build on this leadership, the sector needs highly skilled, job-ready people.

By acting as a national hub and central resource for employers, job seekers, students, educators and government agencies, BioTalent Canada helps make this happen.



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About the Bio-economy

The bio-economy involves the research, development, manufacturing and commercialization of technologies and products for such areas as:

- Agriculture
- Aquaculture
- Bioenergy
- Bioinformatics
- Bioproducts
- Biosciences
- Environment
- Food Processing
- Forestry
- Genomics
- Human and Animal Health
- Industrial
- Life Sciences
- Medical Devices
- Natural Resources
- Nanotechnology
- Nutraceuticals
- Pharmaceuticals

Components of the Bio-economy Skills At-a-Glance

The *Bio-economy Skills At-a-Glance* are built around *Key Competencies*. They are not complete *Bio-economy Skills Profiles*. They capture the key hard and soft skills required to successfully function in this position. Those key competencies require specific tasks be accomplished in order to attain the desired outcome. More often than not, those key activities are functional in nature and require the application of specific knowledge acquired by education, training or practical experience. In bio-economy companies, those functional competencies may be very broad and diversified, encompassing both scientific and business expertise. Some may refer to functional competencies as hard skills of the position.

The *Bio-economy Skills At-a-Glance* have been developed through secondary research and have NOT been validated by industry. As a result, industry feedback will be greatly appreciated. Please send any feedback to portfolios@biotalent.ca.

The *Bio-economy Skills-At-a-Glance* are useful for such activities as recruiting, professional development, coaching, self-assessment, and many other purposes.

Occupational Description

Maintenance Workers perform daily monitoring, repair, and preventative maintenance activities on facilitycritical systems and equipment. They may troubleshoot, install and modernize new and existing systems, including refrigeration equipment, water systems, HVAC systems, and electrical systems.

Potential Professional Background and Education/Bio-economy or Relevant Experience

Education/Certification

- Post-secondary education in mechanical engineering

Professional Experience

- 2 - 3 years related experience.
- Able to lift 45 - 70 lbs
- Working knowledge of cGMP

Competencies and Tasks

A Maintenance Worker must be able to:

A. Gather information

TASKS
1. Read work orders to determine required specifications
2. Review production information reports / shift logs
3. Review operational manuals and equipment documentation

B. Analyze and process data and information

TASKS
1. Interpret technical drawings
2. Interpret blueprints
3. Interpret schematics
4. Analyze machinery and equipment and make recommendations

C. Document structures, devices, parts, and equipment

TASKS
1. Assist in the design of plant and facility layouts
2. Assist in the preparation of component and machine specifications
3. Assist in the preparation of engineering designs
4. Identify maintenance requirements
5. Identify calibration requirements
6. Develop maintenance standards, schedules and programs

D. Install machinery and equipment

TASKS
1. Install new systems and equipment
2. Perform code welding
3. Perform general welding
4. Perform process piping

E. Operate machines and equipment

TASKS
1. Set up machinery and equipment
2. Operate machinery and equipment
3. Assist in machine operations

TASKS
4. Operate cranes or hoists as required
5. Operate material handling equipment such as forklifts, front-end loaders and scissor-lifts
6. Monitor machinery and equipment

F. Inspect equipment, structures, or materials

TASKS
1. Assist with the development of inspection schedules
2. Assist in the inspection of mechanical installations and construction projects
3. Assist with the inspection of facilities and manufacturing equipment

G. Repair and maintain mechanical equipment

TASKS
1. Troubleshoot machinery and equipment malfunctions
2. Dismantle and reassemble machinery and equipment
3. Perform machinery and equipment maintenance
4. Assist in repairing machinery and equipment
5. Clean and lubricate machinery and equipment
6. Clean work areas

H. Document, record and report information

TASKS
1. Prepare maintenance reports
2. Prepare technical reports
3. Record production information for production reports / maintain shift logs

I. Document and comply with policies and procedures

TASKS
1. Contribute to the development of policies and procedures

TASKS
2. Implement policies and procedures
3. Develop work instructions
4. Maintain regulatory compliance
5. Follow current Good Manufacturing Practices (cGMP)

J. Use computers

TASKS
1. Use email software as appropriate
2. Use Microsoft Office as appropriate
3. Use database software as appropriate
4. Use computerized maintenance management systems (CMMs) as appropriate
5. Use building management systems (BMSs) as appropriate

K. Demonstrate Personal Competencies

TASKS
1. Demonstrate teamwork
2. Exhibit sensitivity to cultural and social diversity
3. Be customer service focused
4. Work in a fast-paced environment
5. Follow company's policies and procedures
6. Demonstrate time management skills
7. Manage stress
8. Be a quick learner
9. Communicate effectively and clearly

Strong Board of Directors

The Board of Directors is composed of experts in the field of HR, CEOs, CFOs and CSOs from across Canada with extensive financial and industry experience representing companies and organizations in Canada's bio-economy. BioTalent Canada is not a membership organization and therefore relies on the guidance provided by its dedicated volunteer Board of Directors.

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