

Mechanical Engineering Technology, Diploma

Mechanical Engineering Technologists and Technicians participate in one of the broadest fields of engineering to provide technical support and services. They may work independently to research, design and develop machinery, systems and products for various industry applications including heating, ventilating, air conditioning, power generation, transportation, manufacturing, waste management, or biomechanics. They also evaluate and manage the installation, operation and maintenance of mechanical systems.

What you can be with your Mechanical Engineering Technology, Diploma:

Automated Systems Technologist #2232.1	Instrumentation Engineering Technologist #2241.1	Mechanical Design Technologist #2232.1	Oil Pipeline Control Centre Operator #9232
Testing, Structure and Design Technician #2232.1	Process Planning and Improvement Coordinator/Manager #2212	Fabrication Coordinator of Metal/Non-Metal Products #2232.1	College Instructor #4131
Project Management Professional #0711	Purchasing Agent #1225	Technical Sales Representative #6221	Steel Fabricators Quality Assurance Manager #2212

With additional training, I could be a:

Sustainability Specialist	Thermal Design Engineer #2132	Fluid Mechanics Engineer	Robotics Engineer #2232
Aeronautical Engineer #2146	Heating, Ventilation and Air Conditioning Engineer	Energy Conservation Engineer	Acoustical Engineer
Design Engineer #2132	Maintenance Engineer	Building Systems Engineer #2251	Architectural Engineer #2251

Potential employers:

Access membership rosters for Mechanical Engineering Industry through: Canadian Society for Mechanical Engineering <http://www.csme-scgm.ca/>

This career/job listing is only a sample of the possible career options; these are certainly not the only career/job options accessible with this degree/diploma. Some of the careers listed require further education.

For career information, enter the four digit number listed below in the Alberta Learning Information Services Website (www.alis.alberta.ca) or the National Occupational Classification Website (<http://www5.hrsdc.gc.ca/NOC/>).

RDC Career Services can help you explore your interests, identify your goals, discuss your career options and job search strategies and discover how to make the most of your education. Email or give us a call to connect with a career counsellor.

RDC Department Information: Mechanical Engineering Technology, Diploma
rdc.ab.ca/programs/engineering-and-technologies

Major Skills Obtained from a Mechanical Engineering Technology, Diploma Program

- **Reading** – Read completion reports to ensure the mechanical installation portions of projects meet objectives. Comprehend technical language and be familiar with industry standards. Read field-testing reports to stay current with equipment research and increase knowledge of industry standards. Read and interpret shake, compression and loading tests to recommend modifications based on test results. Read and interpret regulations and contractual agreements to comply with industry standards.
 - **Document Use** – scan labels on equipment parts and packaging to identify product types, part numbers and destinations. Refer to quality specification forms, interpret graph illustrations and take measurements from large-scale assembly drawings that are complex and detailed with multiple design elements. May prepare proposal outlines using standardized industry formats that detail the scope of project, dates of work commencement and payment schedules.
 - **Numeracy** – Take precise measurements of equipment parts for specialized tools. Prepare annual capital cost budgets for manufacturing plants and other facilities. Schedule production activities for all phases of mould design, maintenance and inspection according to production deadlines. Produce measurements and calculations specific to manufacturing objectives and efficiencies.
 - **Writing** –write brief comments on work orders to instruct co-workers regarding project. Write production reports, which track projects as they progress from design to completion, identifying problems and recommendations. Draft contracts of installation and maintenance.
- Oral Communication** – Verify service and maintenance schedules with sales departments. Participate in meetings with supervisors, co-workers and employees to plan projects. Discuss proposed product designs with clients to ensure production meets objectives. Speak with suppliers to obtain information about equipment parts and costs.
- **Working with Others** – Provide feedback to mechanics and suggest alternatives in training and performance standards for improvement in their work in the industry. Collaborate with project development team and integrate perspectives of other professionals in industry. Planning and scheduling their own job tasks to accomplish work goals. Meet with other team members on a regular basis to share information, co-ordinate tasks and establish work schedules. Some technicians with several years of experience may also hold supervisory positions.
 - **Thinking** – Find unusual production defects and deficiencies. Notice that inexperienced machinists operate equipment poorly and take appropriate measures to rectify training errors. Decide which suppliers to select based on comparisons of material specifications and performance and cost efficiency. Seek and input advice from engineers and co-workers to meet objectives. Adept critical thinking skills and attention to detail to comply with specifications.
 - **Computer Use** – Use communications software, word processing and database applications. Adept at computer assisted design, manufacturing and machining software. Ability to transfer digital photographs and files and apply graphics software technology to projects.
 - **Continuous Learning** – Remain competent and competitive mechanical engineering technologists are encouraged to read technical reports, textbooks, books, manuals and magazines specific to the industry. Attending short courses, seminars, workshops and conferences are a mainstay of the occupation.

Professional Associations and Sites of Interest

The Association of Science and Engineering Technology Professionals of Alberta
<http://www.aset.ab.ca/pages/home/default.aspx>

The Canadian Society for Mechanical Engineering <http://www.csme-scgm.ca/>