

Mechanical Engineering Design Technology

Diploma

Program Objective

The program provides knowledge and skills required for research, design and development of mechanical systems, parts and products from their concept stage through all phases of engineering, fabrication, installation, commissioning, operation, modification, maintenance and decommissioning.

Program Notes

Financial assistance may be available to qualified students.

Graduation requirements:

Students must achieve a 75% average to obtain a diploma.

Method of Delivery

Combination of:

- Integrated Learning™ System training facilitated by Academy of Learning College facilitators.
- Instructor-led training.

Career Opportunities

Graduates will be proficient in computer-aided design of mechanical engineering systems and equipment. Graduates will be able to apply mechanical design principles, select appropriate CAD software and create 2D/3D drawings of mechanical systems, parts and components.

Industrial engineering may work independently or provide technical support and services in the development of production methods, facilities and systems, and the planning, estimating, measuring and scheduling of work. They are employed by manufacturing and insurance companies, government departments, and establishments in other industries

Admission Requirements

Grade 12 or equivalent or Mature Student Status.

Mature students must successfully pass the test specified by the campus with minimum required score.

Courses are open to any applicant who possesses a good command of the English language and is able to follow instructions.

Full-time students must attend the required hours per week as per the course schedule and may do so at times convenient to them.

Duties and Responsibilities

- Develop and conduct production, inventory and quality assurance programs in manufacturing or in other industries
- Design plant layouts and production facilities
- Develop and carry out work study and related programs
- Develop and carry out industrial health, safety and fire prevention plans and programs and conduct safety training programs
- Develop applications using CAD/CAM (computer-assisted drafting, computer-assisted manufacturing) for the control of robots, computer numerical control (CNC) machines and other manufacturing processes and operations

Personal Attributes Required

- Strong organizational, interpersonal, analytical, communication, and time management skills
- Effective negotiation skills and professionalism when resolving problems and stressful situations
- Ability to multi-task under pressure and work collaboratively with other team members

Competencies upon Completion

Core Mechanical Engineering Design Courses

- Mechanical Engineering Design Principals
- Finite Element Analysis
- CGD&T and Blueprint Reading
- Basic AutoCAD
- Advanced AutoCAD
- Basic Solidworks
- Advanced Solidworks
- CATIA
- Microstation
- Basic ProEngineer
- Advanced ProEngineer
- Basic AutoDesk Inventor
- Advanced AutoDesk Inventor
- Hands-on Project
- Engineering Project Management
- Technical Report Writing & Presentation Skills
- Canadian Industrial Practices & Workplace Culture