

# Computer Aided Drafting and Design

## Diploma

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### Program Introduction

Drafting technologists and technicians prepare engineering designs, drawings and related technical information, in multidisciplinary engineering teams or in support of engineers, architects or industrial designers, or they may work independently.

### Program Notes

Tuition fees include all materials and student manuals. Financial assistance may be available for those who qualify.

Graduate requirements: Students must maintain a 75% program average to obtain a certificate.

### Method of Delivery

Combination of:

- Integrated Learning™ System training facilitated by Academy of Learning College facilitators
- Online training supported by Academy of Learning College online virtual instructors
- Instructor-led

### Admission Requirements

Grade 12 or equivalent or Mature Student Status.

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

An admissions interview will be administered to determine if the applicant has the required interest, motivation, and entry-level skills to take this program.

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

### Career Opportunities

Graduates may be employed by consulting and construction companies, utility, resource and manufacturing companies, all levels of government and by a wide range of other establishments.

### Duties and Responsibilities

Drafting technologists perform some or all of the following duties:

- Develop and prepare engineering designs and drawings from preliminary concepts, sketches, engineering calculations, specification sheets and other data
- Operate computer-assisted design (CAD) and drafting workstations
- Develop and prepare design sketches
- Complete documentation packages and produce drawing sets
- Check and verify design drawings to conform to specifications and design data
- Write technical reports
- Prepare contracts and tender documents
- Prepare construction specifications, costs and material estimates
- Supervise and train other technologists, technicians and drafters.

Drafting technicians perform some or all of the following duties:

- Develop and prepare engineering drawings, plans, diagrams or layouts from sketches
- Operate computer-assisted drafting equipment or a conventional drafting station.

### Competencies upon Completion

#### CORE COURSES

- **Spreadsheets**  
Basic level of proficiency in Microsoft Excel
- **Database Management**  
Basic level of proficiency in Microsoft Access
- **Computer Aided Drafting and Design**  
Engineering Drawing and Print reading, Fundamentals of Mechanical Design, Auto CAD Levels 1 and 2, Auto CAD 3D Modeling, Auto CAD Project, Solid Works Modules 1-4, Autodesk Inventor Modules 1-4, Autodesk Inventor Project, Fundamentals of Machining CNC, Mastercam CA, Mastercam Mill, and Mastercam Lathe.

