

Pre-Trades and Technology

Section B.136

9/18/2020

Ontario College Certificate (1 Year - 2 Semesters) (4005)

705.759.6700 : 1.800.461.2260 : www.saultcollege.ca : Sault Ste. Marie, ON, Canada



PROGRAM OVERVIEW

If you're interested in the trades but aren't sure which area you would like best, this introductory program in Pre-Trades and Technology will give you the chance to sample different skills and backgrounds while giving you a solid foundational year in trades and technology. You will develop knowledge in areas such as welding, electrical, automotive, construction, millwright, machine shop and plumbing. The program is also appealing to those who may not have the high school courses required for admission into a technician or technology diploma program, or who meet the admission requirements, but would like to upgrade or explore a variety of vocations before choosing a focused area of interest.

ADMISSIONS

MINIMUM ACADEMIC REQUIREMENTS

Ontario Secondary School Diploma or mature student status.

CAREER PATHS

The Ontario Chamber of Commerce predicts that Ontario will face a shortage of about 100,000 skilled trade workers, due to retirement. As a graduate of the Pre-Trades and Technology Certificate program, you may move on to college post-secondary technology programs, apprenticeships, and/or the workplace. If you wish to pursue an apprenticeship, you should contact the local office of the Ministry of Colleges & Universities, Apprentice Branch at 705.945.6815.

This certificate program may lead you to other college programs in the skilled trades such as:

- Aircraft Structural Repair
- Mechanical Engineering Technician
- Mechanical Techniques - Millwright or Machine Shop
- Motive Power Technician - Advanced Repair
- Motive Power Fundamentals - Automotive Repair or Heavy Equipment & Truck Repair
- Metal Fabrication Technician or Welding Techniques
- Electrical Engineering Technician and/or Technology
- Construction Carpentry Techniques
- Civil Engineering Technician

MANDATORY FEES

Domestic		International	
Tuition	Ancillary	Tuition	Ancillary
\$2,716.50	\$1,017.00	\$15,180.80	\$1,477.00

These fees are for the 2020-2021 academic year (year 1 of study) and are subject to change. Please visit your Student Portal to view your Schedule of Fees.

OTHER INFORMATION

Take this one year certificate program and learn trades and technology hands-on.

For more information contact Peter Corbett at 705.759.2554 ext 2530 or email Peter.Corbett@saultcollege.ca.

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PROGRAM OF STUDY

SEMESTER 1

CMM149-3 Practical Communications I
DRF120-2 Drafting and Blueprint Reading Basics
ELR130-3 Electrical Fundamentals
ENV102-3 Industrial Health and Safety
HDG122-3 Personal and Academic Success Strategies
MOT100-3 Introduction to Motive Power
MTH162-3 Pre-Trades/Technology Mathematics 1

SEMESTER 2

CTT134-2 Introduction to Computers
CTT140-3 Construction Basics
MCH140-4 Machine Shop Fundamentals
MTF105-2 GAS Shielded Semi-Automatic Welding 1
MTH163-3 Pre-Trades/Technology Mathematics 2
PHY117-3 Concepts of Technical Physics
PLM100-3 Introduction to Plumbing

Course Descriptions

Semester 1

Practical Communications I (CMM149) (3 credits)

This course helps students develop reading, writing, listening, and speaking skills required for various apprenticeship and certificate programs. Practical program-related assignments assist students to acquire the essential skills for their field. As well, students prepare current job-search documents. The principles of writing are taught through the writing process.

Drafting and Blueprint Reading Basics (DRF120) (2 credits)

The tradesperson is often required to receive and transfer technical information. Drawings, free hand sketches, schematics and flow diagrams are forms of this information transfer. This introductory course will expose the student to these methods of information transfer by drawing objects using standard drafting techniques, making complete neat free hand sketches and extracting information from various construction drawings.

Electrical Fundamentals (ELR130) (3 credits)

This course introduces students to electrical fundamentals. Safety issues, provincial and national codes relating to electrical installations and characteristics or electric circuits will be introduced. Students will participate in hands-on practical activities.

Industrial Health and Safety (ENV102) (3 credits)

This is an introductory course for all those interested in industrial practices from the standpoint of industrial hygiene and industrial health and safety. Students will become familiar with pertinent legislation, industry and workers rights and responsibilities, recognition, evaluation and control methods and safe working practices.

Personal and Academic Success Strategies (HDG122) (3 credits)

This course will prepare you for the rigors of academic life and enable you to develop a personal profile for college and career success. The main focus of this course will include accepting personal responsibility, discovering self-motivation, mastering self-management, employing interdependence, gaining self-awareness, adopting lifelong learning, and developing emotional intelligence. In addition, you will develop and produce a `Personal Profile` that will identify your personal learning style, communication style, and personality style to enable you to achieve success in learning about, understanding, and choosing the courses and careers that will lead to personal and professional satisfaction.

Introduction to Motive Power (MOT100) (3 credits)

Students will learn about Motive Power trades including Automotive, Heavy Equipment/ Truck Coach and Marine and Small Engines. The course will provide students with hands-on practical experience in these trades. They will cover basic fundamentals of these trades.

Pre-Trades/Technology Mathematics 1 (MTH162) (3 credits)

This first level mathematics course for the pre-trades and technology programs will allow students to establish their math preparedness level. Students will use a variety of math study skills and problem-solving strategies to become ready for college-level trades or technology math courses. Topics of focus include: fundamental concepts including arithmetic operations and concepts in measurement, ratio, proportion, per cents and introductory algebra.

Semester 2**Introduction to Computers (CTT134) (2 credits)**

This course introduces students to computer concepts and PC software applications. Practical skills in the use of Windows, e-mail, the Internet, word processors and spreadsheets will be developed.

Construction Basics (CTT140) (3 credits)

This course will familiarize students with construction basics. Students will learn to use a variety of basic hand and power tools used in the construction industry. Students will participate in hands-on practical activities.

Machine Shop Fundamentals (MCH140) (4 credits)

This course will allow the student to develop the skills required to operate the various machines and equipment necessary to work safely and productively in a machining, manufacturing and maintenance setting with a focus on building parts or making repairs in industry. Special attention will be placed on accurate measurement and inspection.

GAS Shielded Semi-Automatic Welding 1 (MTF105) (2 credits)

Describe the fundamentals, construction features and consumables of the Gas Metal Arc Welding (GMAW) process in accordance with government safety regulations, manufacturer's recommendations and approved industry standards.

Pre-Trades/Technology Mathematics 2 (MTH163) (3 credits)

This course is a continuation of MTH162-3 (from Semester One) for pre-trades and technology students. Students will expand on their use of math study skills and problem solving strategies. The focus will be on meeting the students individual needs based on his or her personal goals. Topics of study may include:

graphing linear relationships, quadratic, exponential and logarithmic equations, geometry, and trigonometry of right and oblique triangles with applications.

Concepts of Technical Physics (PHY117) (3 credits)

This course introduces students to the concepts of physics related to trades and technology fields of study. Students will participate in lectures, class demonstrations and laboratory work. Lab exercises will develop and reinforce the concepts learned in the course. Students will also develop an appreciation for physics as a science and its broad impact on the world as we know it.

Introduction to Plumbing (PLM100) (3 credits)

Students will gain basic knowledge about plumbing. They will have the opportunity to practice safe handling and proper use of hand and power tools. They will practice performing various basic plumbing skills.