

Manufacturing Technology: Mechanical Engineering, Grade 12 – University/College Preparation TMM 4M0

Students develop knowledge and skills related to design, process planning, control systems, project management, automated systems, and business operations. Students study advanced equipment: CAD/CAM, CNC and develop project management skills. Students will critically analyse and solve complex problems in Manufacturing of products. Students will expand their awareness of environmental and societal issues and of career opportunities in the Manufacturing industry.

- Demonstrate an understanding of how to work safely in a manufacturing environment
- Show their knowledge of the design process
- Will apply advanced solutions to engineering challenges using CNC manufacturing processes
- Think about cost impact, environmental impact, and production process and method improvement on conventional machinery.
- Recognize career opportunities available to them post-secondary related to mechanical engineering.
- Create a project using the design process.(Hovercraft, model engine, stair climber, etc.)

Prerequisite: Manufacturing Technology: Mechanical Engineering, Grade 11, University/College Preparation (TMM 3M0) **OR** Manufacturing Technology: Robotics and Control Systems, Grade 11, University/College Preparation (TMR 3M0)