

SOUTH CARLETON HIGH SCHOOL

Ottawa-Carleton District School Board

STUDENT OUTLINE**TMJ4C**

Manufacturing Technology

Grade 12

Credit Value: 1.0

Hours: 110

Prerequisite: TMJ3C

Course Overview

This project-driven, hands-on course builds on students' experiences in manufacturing technology. Students will further develop knowledge and skills related to the use of engine lathes, milling machines, welding machines, and other tools and equipment as they design and fabricate solutions to a variety of technological challenges in manufacturing. Students may also have opportunities to acquire industry-standard training and certification. Students will expand their awareness of environmental and societal issues and of career opportunities in the manufacturing industry.

Specific Expectations

Unit Title	Specific Expectations	Approximate Timelines
Manufacturing Technology Fundamentals	- demonstrate an understanding of the secondary manufacturing industries and the processes and technologies related to them; - demonstrate a working knowledge of the processes required for making material conversions.	4 weeks
Manufacturing Technology Skills	- use technical drawing skills and a design process to create engineering drawings that provide solutions to project development challenges; - select and use the proper materials when manufacturing a product to meet specifications.	12 weeks
Technology, the Environment, and Society	- demonstrate an understanding of the importance of using sustainable and environmentally friendly manufacturing practices; - explain how the manufacturing industry affects society locally, provincially, and/or nationally.	2 weeks
Professional Practice and Career Opportunities	- demonstrate an understanding of and compliance with health and safety legislation, standards, and practices, including methods to address deficiencies, as they relate to the manufacturing industry;.	2 weeks

Accommodations for Exceptional Students

The technology department makes every effort to accommodate the identified needs of exceptional (IPRC'd) students and will attempt to differentiate curriculum delivery methods, student modes of expression, and assessment methods as recommended by the student's individual education plan (IEP).

Teaching Strategies

Units are activity based. Teacher demonstrations and research activities provide the students with the necessary terminology and methodology to complete the activities. Classroom discussions, collaborative and co-operative learning, research, report writing and taking notes will assist students in meeting the course expectations. Upon completion of this course, students will demonstrate the ability to apply skills and knowledge to practical situations that involve the completion of work assignments and problem-solving activities. Students will be expected to use the Internet to find resources for their projects.

Resources/Textbooks/Technological Integration

A series of in-house workbooks and electronic resources.

Evaluation

Term Report	Final Report	
Students will be evaluated on the overall expectations listed above. Evaluations will cover a balance of Knowledge & Understanding, Application, Communication, Thinking, Inquiry and Problem Solving.	Term Summative task	70% 30% 100%

Key Evaluation Dates:

Technological Studies summatives will come due within the school's Summative and Evaluation Period between January 6th and 31st and June 8th to June 30th

Absence from evaluations during these dates must be substantiated with a medical certificate or equivalent documentation as approved by administration.

Classroom Management

Due to the nature of the technology classroom, no food or beverages, jackets or bags can be allowed. Adherence to school Internet use policy will be strictly enforced. Noncompliance will result in the removal of computer privileges for the students for an indeterminate period of time.

More information on South Carleton High School's policy on Assessment and Evaluation and on Academic Integrity can be accessed on our school website www.southcarleton.ca