



Ancaster High School
Course Outline 2013/2014
Manufacturing Technologies
Grade 10 TMJ2O
Technological Education



TEACHER: Mr. J. Radix

PREREQUISITE: None

HOURS: 110

CREDIT VALUE: 1

DEPARTMENT HEAD: Mr. K. Lemieux

TEXTBOOK: None

GUIDELINE: *The Ontario Curriculum Grades 9 and 10, Technological Education, 2009 Revised*

The text will be provided free of charge. However, the student is responsible for returning the book in reasonable condition. The student will be charged for loss or damage.

OVERALL EXPECTATIONS:

A. MANUFACTURING TECHNOLOGY FUNDAMENTALS

OVERALL EXPECTATIONS

By the end of this course, students will:

- A1.** demonstrate an understanding of the manufacturing industry and of processes and technologies related to manufacturing;
- A2.** demonstrate an understanding of how a design process is used in the planning and development of a manufacturing project;
- A3.** identify and explain how various materials, tools, and equipment are used in the manufacture of products.

B. MANUFACTURING TECHNOLOGY SKILLS

OVERALL EXPECTATIONS

By the end of this course, students will:

- B1.** apply an appropriate design process to plan and develop a product;
- B2.** develop and use a manufacturing process plan to produce a product;
- B3.** use hand tools, machine tools, power tools, materials, and equipment safely and correctly in the manufacture of a product;
- B4.** demonstrate the use of metrology skills to measure, lay out, and inspect a product.

C. TECHNOLOGY, THE ENVIRONMENT, AND SOCIETY

OVERALL EXPECTATIONS

By the end of this course, students will:

- C1.** demonstrate an understanding of ways in which the manufacturing industry affects the environment;
- C2.** demonstrate an understanding of ways in which the manufacturing industry affects society.

D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES

OVERALL EXPECTATIONS

By the end of this course, students will:

D1. identify and demonstrate compliance with health and safety legislation, standards, and procedures related to the manufacturing industry;

D2. describe career opportunities in the manufacturing industry and the education and training required for these careers.

TEACHING STRATEGIES (include, but not limited to):

- Providing appropriate accommodation for students on IEP's and for English Language Learners and for those who are First Nations, Metis or Inuit;
- Utilizing Student Support and Student Alternative Support Programs;
- Contacting parents for support and assistance;
- Using diagnostic assessment and check-in points to monitor student progress;
- Providing differentiation of instruction and assessment to meet the needs of diverse learners;
- Providing ongoing descriptive feedback that is clear, specific, meaningful, and timely to support improved student learning;
- Creating lessons, and assessment and evaluations, that are carefully planned to relate to the curriculum expectations and learning goals, and as much as possible to the interests, learning styles and preferences of all students;
- Developing students' self-assessment skills to enable them to assess their own learning, set specific goals, and plan next steps for their learning.

ASSESSMENT AND EVALUATION OF WORK:

Assessment and evaluation will be based on the provincial curriculum expectations and the achievement levels outlined in the curriculum policy document. Students will be given numerous and varied opportunities to demonstrate their achievement of the expectations across the four categories of knowledge and skills.

Midterm and final marks will be calculated using the prescribed learning strands with the following weighting:

Strand	Weighting
A. MANUFACTURING TECHNOLOGY FUNDAMENTALS	20%
B. MANUFACTURING TECHNOLOGY SKILLS	40%
C. TECHNOLOGY, THE ENVIRONMENT, AND SOCIETY	5%
D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES	5%

Evidence of achievement can be determined from a variety of sources, including but not limited to: in-class assignments, class presentation, open-ended questions, observations, quizzes, unit tests, investigations, projects, conversations, portfolios, anecdotal records, self-assessments, etc. Not every assessment will count towards a student's final grade. The primary purpose of assessment and evaluation is to improve student learning.

