



**Ancaster High School**  
**Course Outline 2013/2014**  
***Technological Design***  
***Grade 12 TDJ4M***  
**Technological Education**



**TEACHER:** Mr. J. Radix

**PREREQUISITE:** TDJ3M

**HOURS:** 110

**CREDIT VALUE:** 1

**DEPARTMENT HEAD:** Mr. K. Lemieux

**TEXTBOOK:** None

**GUIDELINE:** *The Ontario Curriculum Grades 11 and 12, 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.

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**OVERALL EXPECTATIONS:**

**A. TECHNOLOGICAL DESIGN FUNDAMENTALS**

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By the end of this course, students will:

- A1.** demonstrate an understanding of criteria, relationships, and other factors that affect technological design and the design process;
- A2.** describe strategies, techniques, and tools for researching, organizing, planning, and managing design projects and related activities, with an emphasis on advocacy, diplomacy, and marketing;
- A3.** demonstrate an understanding of drafting standards, drawing types, conventions, and guidelines used when representing design ideas graphically;
- A4.** demonstrate an understanding of various types of models and prototypes, and describe the tools, materials, equipment, and processes for building, testing, and evaluating them;
- A5.** use appropriate technical language and communications methods to document, report, present, and market design ideas and results.

**B. TECHNOLOGICAL DESIGN SKILLS**

**OVERALL EXPECTATIONS**

By the end of this course, students will:

- B1.** use appropriate resources, methods, and tools to research and manage design projects and related activities;
- B2.** apply appropriate methods for generating and graphically representing complex design ideas and solutions;
- B3.** create, test, and analyse models and/or prototypes, using a variety of techniques, tools, and materials;
- B4.** use a variety of formats and tools to create and present reports summarizing and evaluating the design process, to analyse decisions made during the process, and to advocate the final design.

## **C. TECHNOLOGY, THE ENVIRONMENT, AND SOCIETY**

### **OVERALL EXPECTATIONS**

By the end of this course, students will:

- C1.** demonstrate an understanding of environmentally responsible design practices, and apply them in the technological design process and related activities;
- C2.** analyse the relationship between society and technological development.

## **D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES**

### **OVERALL EXPECTATIONS**

By the end of this course, students will:

- D1.** describe and apply personal and environmental health and safety standards and practices related to technological design;
- D2.** compare a variety of careers related to technological design, as well as the training and educational requirements for them, and maintain a portfolio of their work as evidence of their qualifications for future education and employment.

### **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 Inui;
- 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:

<b>Strand</b>	<b>Weighting</b>
<b>A. TECHNOLOGICAL DESIGN FUNDAMENTALS</b>	<b>20%</b>
<b>B. TECHNOLOGICAL DESIGN SKILLS</b>	<b>40%</b>
<b>C. TECHNOLOGY, THE ENVIRONMENT, AND SOCIETY</b>	<b>5%</b>
<b>D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES</b>	<b>5%</b>

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.

### **CULMINATING ACTIVITY**

Culminating activities occur at or near the end of a course. They form part of the final 30% of a student's mark. If a student is absent from a culminating activity, they must provide a doctor's note. The culminating activity will not normally be re-scheduled.

**For this course, the culminating activity will occur:** In the last month of the course and during the exam schedule.

**And will consist of the following:** A practical demonstration of skills learned throughout the semester and a written assignment (reflective writing).

### **LEARNING SKILLS:**

The report card provides a record of the learning skills demonstrated by the student in every course, in the following six categories. However, learning skills are not directly considered in the determination of percentage grades.

<b>Independent Work</b>	These skills will be assessed using the following key:
<b>Collaboration</b>	E = Excellent
<b>Organization</b>	G = Good
<b>Initiative</b>	S= Satisfactory
<b>Responsibility</b>	N = Needs Improvement
<b>Self-Regulation</b>	

### **MARK CALCULATION:**

Interim: A report will be given to reflect how well the student is progressing with suggestions for improvement.

Term Work: 70% of the overall grade (from all term evaluations)

Final Evaluation(s): 30% of the overall grade (20% practical culminating activity, 10% written assignment)

Teachers will take various considerations into account before making a decision about the grade to enter on the report card. Determining a report card grade will involve teacher's professional judgement and interpretation of the evidence and should reflect the student's most consistent level of achievement with special considerations given to the more recent evidence. Marks are not merely a calculation of averages, but an evaluation of the consistent achievement of the student.

**CONTACT INFORMATION:**

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Extra Help Sessions: As required