

TDJ3M1 Technological Design Grade 11, University/College Preparation

General Course Information

Prerequisite: None

Department: Computers/Technology Extra Help: Please see teacher

Textbook and Replacement Cost: None Material Required: None

Course Description

This course examines how technological design is influenced by human, environmental, financial, and material requirements and resources. Students will research, design, build, and assess solutions that meet specific human needs, using working drawings and other communication methods to present their design ideas. They will develop an awareness of environmental, societal, and cultural issues related to technological design, and will explore career opportunities in the field, as well as the college and/or university program requirements for them.

The course is organized into 5 strands:

- Safety, Ergonomics & Design
- Technical Drawings
- Model Building
- AutoCAD
- Careers

A detailed list of the course expectations can be found at http://www.edu.gov.on.ca/eng/curriculum/secondary/2009teched1112curr.pdf

Assessment and Evaluation

To promote student success, ongoing assessment and feedback will be given regularly to the students. A variety of assessment and evaluation strategies will be used in this course, including tests, quizzes, group work and presentations. Expectations will be evaluated based on the provincial curriculum expectations and the achievement levels outlined in the ministry document.

Expectations are organized into four categories of knowledge and skills. The categories and their corresponding weighting is as follows:

Knowledge and Understanding 35%
Thinking 15%
Communication 15%
Application 35%

Each student's final mark will be in the form of a percentage grade based on their achievement in the 4 categories on the achievement chart. The breakdown of the final mark is as followed:

Term Evaluation 70% Final Evaluation 30%

The final Evaluation will be completed during the final 6 weeks of the course and may include a variety of summative activities including an exam, a presentation, a seminar, or an essay or another writing assignment.

In addition to students' performance in the achievement categories, students will also be assessed on their performance in the following learning skills:



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- Responsibility
- Organization
- Independent Work
- Collaboration
- Initiative
- Self-Regulation

For specific policies on assessment and evaluation, and academic honesty, please refer to *School Procedures* in the student agenda.

Overall Course Expectation

By the end of this course, students will:

- demonstrate an understanding of factors and relationships that affect technological design and the design process;
- describe appropriate strategies, techniques, and tools for researching, organizing, planning, and managing design projects and related activities, with an emphasis on financial, human, and material resources;
- demonstrate an understanding of drafting standards, conventions, and guidelines for various types of drawings used to represent designs;
- demonstrate an understanding of a variety of tools, materials, equipment, and processes used to build, test, and evaluate models and prototypes;
- use appropriate terminology and communication methods to document, report, and present progress and results.
- use appropriate strategies and tools to research and manage design projects and related activities;
- apply appropriate methods for generating and graphically representing design ideas and solutions;
- create and test models and/or prototypes, using a variety of techniques, tools, and materials;
- use a variety of formats and tools to create and present reports summarizing the design process and to reflect on decisions made during the process
- demonstrate an understanding of environmentally responsible design practices, and apply them in the technological design process and related activities;
- describe the relationship between society and technological development
- describe and apply health, safety, and environmental practices related to technological design;
- identify career opportunities in fields related to technological design, and describe the training and education required for these careers.

Classroom Expectation

- Academic Honesty Students are expected to be academically honest by submitting their own original work, and the mark received is intended to reflect their own academic achievement.
- Online Code of Conduct as in the school agenda or <u>http://www.tdsb.on.ca/communications/code of online conduct/occ.html</u>
- Respect for Property no food or drink in the lab
- Policy on late or missed evaluations as in the school agenda