

# Technological Design TDJ3M1

<p><b>Course Description:</b></p> <p>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.</p>	<p><b>Level:</b> Mixed (University/College)</p> <p><b>Credit Value:</b> 1.0</p> <p><b>Pre-requisite:</b> None</p> <p><b>Department:</b> Technology</p> <hr/> <p><b>Course Fees:</b> None</p>
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<p><b>Textbooks &amp; Resources:</b></p> <ul style="list-style-type: none"> <li>Growing Success: Assessment, Evaluation and Reporting in Ontario Schools</li> <li>The Ontario Curriculum, Grades 11 and 12: Technological Education, 2009 (revised)</li> <li>There is no textbook. Resources, learning materials and assignments are provided to students through the SATEC network and the Moodle learning management system. Students must have a network account, a home computer, internet access and printer at home, an email account and a portable USB stick /drive.</li> </ul>
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<p><b>Course Evaluation:</b> Student Evaluation consists of three components...</p>									
<p><b>1) Learning Skills &amp; Work Habits:</b> Students are evaluated on 6 Learning Skills &amp; Work Habits. They are:</p> <ul style="list-style-type: none"> <li>Responsibility</li> <li>Organization</li> <li>Independent Work</li> <li>Collaboration</li> <li>Initiative</li> <li>Self-Regulation</li> </ul>	<p>These six attributes are evaluated on a scale of Excellent (E), Good (G), Satisfactory (S) &amp; Needs Improvement (N) and reported on the report card. They <b>are not</b> included in the course mark, unless specified in the curriculum expectations</p>								
<p><b>2) Term Mark (Assessment of Learning):</b> Student performance standards for knowledge and skills are described in the curriculum Achievement Chart. The curriculum is assessed in four categories:</p> <ul style="list-style-type: none"> <li>Knowledge and Understanding 20%</li> <li>Thinking and Inquiry 20%</li> <li>Communication 20%</li> <li>Application 40%</li> </ul>	<p>Evaluation of these four categories generates the term mark. The term mark accounts for 70% of the final mark.</p> <p><b>It is the student's responsibility to submit evidence of learning.</b></p>								
<p><b>3) Final Evaluation (Assessment of Learning):</b> The final evaluation, administered at or towards the end of the course is based on the evidence shown to the right. The final evaluation accounts for 30% of the final mark.</p>	<p>The final evaluation consists of:</p> <table style="width: 100%; border: none;"> <tr> <td>Exam - Knowledge</td> <td style="text-align: right;">20%</td> </tr> <tr> <td>Exam - Thinking</td> <td style="text-align: right;">20%</td> </tr> <tr> <td>Exam - Communication</td> <td style="text-align: right;">20%</td> </tr> <tr> <td>Exam - Application</td> <td style="text-align: right;">40%</td> </tr> </table>	Exam - Knowledge	20%	Exam - Thinking	20%	Exam - Communication	20%	Exam - Application	40%
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Exam - Thinking	20%								
Exam - Communication	20%								
Exam - Application	40%								
<p><b>Final Mark = 70% Term Mark + 30% Final Evaluation</b></p>									
<p>For a detailed description on Course Evaluation, see "How Did I Get That Mark!" at <a href="http://www.satec.on.ca">www.satec.on.ca</a></p>									

**Course Conduct Policies:** See Student Agenda.

**Please retain this page in the front of your notebook for future reference.**



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**Course Outline:**

<b>Unit</b>	<b>Description</b>	<b>Approximate Length</b>	<b>Major Unit Evaluation</b>
Problem Solving	Essential Skills, Planning, Information Processing and Critical / Creative Thinking	2 weeks	Test, Design Project, Reflection
Shop Safety	Hand skills, shop skills and work habits	2 weeks	Test, Design Project, Reflection
Tools of Design	Computer Aided Design	3 weeks	Test, Design Project, Reflection
Learning the Design Process	Mechanical Design, working with metal	3 weeks	Test, Design Project, Reflection
Modelling the Design Process	Working with wood	3 weeks	Test, Design Project, Reflection
Culminating Activity / ISU	Application of concepts and skills to an extension learning activity of the student's own design	3 weeks	Design Project, Reflection

**Note: The order the units are delivered may change due to student needs and resources available during the course.**

**General Information:**

At SATEC we value the goals that students have for career development and we therefore place particular emphasis on:

- Project management
- Personal work habits and interpersonal communication skills
- Thinking skills including planning and information processing
- Problem-solving and design for environmental and social sustainability
- The importance, in the workplace, of 13 fundamental concepts of technology

This course is driven by what industry needs from all workers:

- Continuous improvement of all Essential Skills
- Sound Work Habits and a strong sense of Good Citizenship
- Multi-dimension problem-solving ability such as to prepare workplace processes / solutions

This course meets ICT SHSM program requirements.

