

Exploring Technology TIJ10

<p>Course Description: This course provides students with opportunities to apply a design process to meet a variety of technological challenges. Students will research projects, create designs, build models/prototypes, and assess products/processes using appropriate tools, techniques, and strategies. Student projects may include design for homes, vehicles, bridges, robotic arms, clothing, or other products. Students will develop an awareness of environmental & societal issues related to technological design and will learn about secondary, postsecondary education and alternate training leading to careers in this field.</p>	<p>Level: Grade 9 - Open</p>
	<p>Credit Value: 1.0</p> <p>Prerequisite: None</p> <p>Department: Technology Department</p>
<p>Course Fees: None</p>	

<p>Textbooks & Resources:</p> <ul style="list-style-type: none"> ● Growing Success: Assessment, Evaluation and Reporting in Ontario Schools ● The Ontario Curriculum Grade 9 and 10 Technological Education ● Google Classroom will be for general documentation, SATEC drop/pick up for Digital Drawings, TDSB Software
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<p>Course Evaluation: Student Evaluation consists of three components...</p>	
<p>1) Learning Skills & Work Habits:</p>	
<p>Students are evaluated on 6 Learning Skills & Work Habits. The 6 Essential Skills are:</p> <ul style="list-style-type: none"> ● Responsibility ● Organization ● Independent Work ● Collaboration ● Initiative ● Self-Regulation 	<p>These six attributes are evaluated on a scale of Excellent (E), Good (G), Satisfactory (S) & Needs Improvement (N) and reported on the report card. They are not included in the course mark, unless specified in the curriculum expectations</p>
<p>2) 100% = Term Mark (Assessment of Learning):</p>	
<p>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"> ● Knowledge 20% ● Thinking & Inquiry 20% ● Communication 20% ● Application 40% 	<p>Evaluation of these four categories generates the term mark. The term mark accounts for 100% of the final mark.</p> <p>There will be no exam due to COVID19.</p> <p>It is the student's responsibility for submitting evidence of Learning.</p>
<p>All assignments will be in the Google Classroom.</p>	

<p>Course Conduct Policies: See Student Agenda.</p>
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Course Outline:		
Unit	Description	Unit Evaluation
Hand Drafting + AutoCAD	Students review rules of drafting and practice drafting skills - 2D & 3D. Students will draw Orthographic drawings, and Isometric Drawings using 2021 CAD software.	Drafting 2D Test Drafting 3D Test
Safety	Students will learn safe use of tools in IT8. Students will learn basic understanding of workplace safety & rights. Students will be required to pass and receive a safety certificate.	Safety Booklet, Tests, Demonstration Build Project in class following safety rules.
Additive Manufacture	Students will design & draw in 3D items to be printed on the 3D Printer.	{ optional } MagLev vehicles are a choice.
Engineering: MagLev	Students will make a Maglev vehicle using their design processing skills.	Design Process, Research & Present, Report, Drawings & Built MagLev Car, Race Day
Architecture Design	Students will study principles of design. They will design & build a model of a 500 square feet Condominium using Homstyler.	Architecture Design Theory, Design Concept Drawings, Model
Careers	Technology Related Career Study . Students explore the Broad Base Technologies and select a career of interest.	Report or Presentation Lecture
Theory: Materials	Students may study Moodle quizzes to improve their Knowledge mark	Homework: Read article/chapter, Test, Use when Building
Note: Order and/or type of units delivered may change due to student needs, available resources and equipment.		

General Information:
<p>Recommended Resources: Google Classroom, School network documents and internet, library.</p> <p>How to Seek Extra Help: Mornings, during class and lunches.</p> <p>Certifications: None.</p> <p>Safety Training: All students will complete wood shop safety training to the Teacher’s standards prior to use.</p>