

**Canada World Education Centre  
Course Outline**

<b>Course: Technological Design</b>			
<b>Grade: 10</b>	<b>Type: Open</b>	<b>Credit Value: 1</b>	<b>Course Code: TDJ20</b>
<b>Teacher: J.F. Michaud</b>		<b>Development Date: 04/15/2019</b>	
<b>Course Reviser: Vizarat Shaikh</b>		<b>Prerequisite: None</b>	
<b>Date:</b>			
<b>Ministry Curr. Doc: The Ontario Curriculum Grades 9 to 12, Course Descriptions and Prerequisites, 2018</b>			
<b>Course Description</b>			
An introductory design course that applies the principles of the design process, the technologies, and the language of design to the solution of people's needs with respect to how technology affects society.			
<b>Overall Expectations for Student Learning</b>			
<b>Students will:</b>			
<ul style="list-style-type: none"> <li>● Know and understand the classification of technology and lean manufacturing</li> <li>● Demonstrate the understanding of the design process and the impact on society and the environment</li> <li>● Produce hard copies of the deigned solutions using appropriate types of hardware or software</li> <li>● Build a model or prototype from working drawings</li> <li>● Identify career opportunities</li> </ul>			
<b>Outline of Course Content</b>			<b>Hours:</b>
<b>Unit:</b>			
Unit 1. Measurement: Imperial Units			10
Unit 2. Portfolio: Visual Communication			20
Unit 3. Development Drawings: Orthographics, Isometrics			25
Unit 4. AutoCad: Techniques, Drawing Commands, Dimensioning			25
Unit 5. Cross Puzzle Challenge: Safety, Blueprint Reading			15
Unit 6: Final Task - Bird House Project			15
<b>Teaching and Learning Strategies</b>			

Teachers use a variety of teaching strategies to maximize student learning. The following teaching strategies will be used in this course:

Helping students become self-directed.

In order to address the unique learning styles of students in this course, a variety of activities and learning experiences should be offered, including, but not restricted to: questioning, demonstrations, role-plays, simulations, co-operative group learning, brainstorming, discussion, peer coaching, interviewing, reflective writing, reflective thinking exercises, concept mapping, reading, tutoring, direct instruction, one-on-one teaching, and experimental learning.

Teachers will find ways throughout the course for students to make authentic learning connections with their other courses, the school, local community and the world at large.

### **Assessment & Evaluation of Student Performance**

#### **Assessment & Evaluation**

The primary purpose of assessment and evaluation is to improve student learning and to help students assume responsibility for their learning.

Mid-semester and final marks are determined through evaluations or Assessments of Learning, which typically occur towards the end of a unit and end of semester. During the learning process, information about a student's learning is gathered and used by the teacher and student to inform decisions that affect goal setting and teaching in the classroom. The data gathered as Assessment as Learning and Assessment for Learning do not carry a mark weight, but do play a crucial role in student success as they help inform the teacher about each student's progress. All types of assessments allow teachers to provide descriptive feedback that is clear, specific, meaningful, and timely to support improved learning and achievement.

Learning Skills and Work Habits (responsibility, organization, independent work, collaboration, initiative, self-regulation) will be reported by a letter (E = Excellent, G = Good, S = Satisfactory, N = Needs Improvement). These skills and habits support a high level of success in meeting the course expectations in addition to contributing to the development of positive life and work skills for the future.

### **Considerations for Program Planning**

Program Planning Considerations • Individual Education Plan: Accommodations to meet the needs of exceptional students as set out in their Individual Education Plan will be implemented within the classroom program. Additional assistance is available through the Special Education program. • The Role of Technology in the Curriculum. Using information technology will assist students in the achievement of many of the expectations in the curriculum regarding research,

written work, analysis of information, and visual presentations.

- **English As a Second Language (ESL):** Appropriate accommodations in teaching, learning, and evaluation strategies will be made to help ESL students gain proficiency in English, since students taking ESL at the secondary level have limited time in which to develop this proficiency.

## **Resources**

### **Technological Devices:**

**CWEC supports the use of technology to enhance learning, but the use of such electronic technology in the classroom is at the discretion of the teacher. Working together we can ensure the appropriate use of technology by all members of our school community**