

**Canada World Education Centre
Course Outline**

Course: Technological Design			
Grade: 12	Type: University/College	Credit Value: 1	Course Code: TDJ4M
Teacher: J.F. Michaud		Development Date: 04/15/2019	
Course Reviser: Vizarat Shaikh		Prerequisite: TDJ3M	
Date:			
Ministry Curr. Doc: The Ontario Curriculum Grades 9 to 12, Course Descriptions and Prerequisites, 2018			
Course Description			
This course applies the principles of the design process, the technologies, and the language of design, both conventional and computer aided drafting, to the solution of people's needs.			
Overall Expectations for Student Learning			
Students will:			
<ul style="list-style-type: none"> ● Know and understand the classification of technology ● Demonstrate the understanding of the design process and the impact on society and the environment ● Produce hard copies of the designed solutions using appropriate types of hardware or software ● Develop and produce working developmental drawings ● Demonstrate the use of research skills ● Describe and communicate the significance of the components contained in a technical report ● Build an effective models or prototype ● Know and describe jobs and careers in design ● Describe and communicate the significance of the components contained in a technical report ● Build an effective prototype or model 			
Outline of Course Content			Hours:
Unit:			
Unit 1. Portfolio Construction			10
Unit 2. Drafting Review			15

Unit 3. Kitchen/Office Design	20
Unit 4. AutoCad	30
Unit 5. Final Task - Robotic Arm	35

Teaching and Learning Strategies

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