



# Westside Secondary School

Orangeville, Ontario, Canada



519-938-9355

## Grade 10 Construction Course Outline

[www.ugdsb.on.ca/westside](http://www.ugdsb.on.ca/westside)

Course: TCJ 20

Teacher(s): Craig Thomson

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### Course Description:

This course introduces students to building materials and processes through opportunities to design and build various construction projects. Students will learn to create and read working drawings; become familiar with common construction materials, components, and processes; and perform a variety of fabrication, assembly, and finishing operations. They will use a variety of hand and power tools and apply knowledge of imperial and metric systems of measurement, as appropriate. Students will develop an awareness of environmental and societal issues related to construction technology, and will explore secondary and postsecondary pathways leading to careers in the industry.

### Big Ideas

A technology course is often viewed as an opportunity for students to develop **skills and knowledge** for use with **tools and materials**. While this is one of the goals of this course, it is equally important for students to **think critically** about the technological world. This course will encourage students to examine why we use technology and resources and the impact on our global society. Students will develop the skills to interact in a collaborative manner in order to emulate the required relationships common in workplace settings. By using **creative processes** students will develop their abilities to think **divergently and laterally** to more clearly examine the technology used in our world.

### Overall Expectations:

- A1. describe the components and systems of buildings, the properties of various building materials, and the processes in which those materials are used;
- A2. demonstrate an understanding of the safe and correct use of construction tools, equipment, and techniques;
- A3. use correct terminology to describe building components and construction materials, tools, equipment, and processes.
- B1. design construction projects, individually or in small groups, applying a design process to plan and develop the projects and other problem-solving processes to address various related problems and challenges;
- B2. use drawings to represent design ideas and solutions to technological challenges, and interpret drawings accurately when working on construction projects;
- B3. apply the mathematical skills required in the planning and building of construction projects.
- C1. use tools, equipment, and techniques correctly and safely when preparing materials for a project;
- C2. use fabrication and assembly techniques safely, accurately, and in the correct sequence;
- C3. prepare surfaces and apply finishing products, trim, and hardware correctly and safely.
- D1. demonstrate an understanding of ways in which the construction industry affects the environment;
- D2. describe ways in which the construction industry affects society.
- E1. Identify and follow health and safety regulations, standards, and procedures related to the construction industry;
- E2. Identify career opportunities in the construction industry, and describe the training required for these careers.

**Achievement Categories:** Student learning is assessed and evaluated with respect to the following four categories of knowledge and skills.

**Knowledge and Understanding: 25%**    **Thinking: 25%**

**Communication: 25%**

**Application: 25%**

### Assessment and Evaluation:

Formative assessments are used to improve student learning by providing varied opportunities to demonstrate an

understanding of course expectations in preparation for summative evaluations. Summative evaluations test groups of key expectations. Failure to complete a summative evaluation may result in the expectations of the course not being met and the credit not being granted.

**Late Policy:**

Students are expected to complete all assigned work and submit it by the teacher's established due date. Every attempt will be made to encourage students to complete all assigned work on time so their grade represents their actual achievement. For late and missed summative assessments, please see the *Westside Students' Contract for Missing Evidence of Learning*.

More details about Westside's Assessment and Evaluation Policy is available at:  
<http://www.ugdsb.ca/westside/wp-content/uploads/sites/74/2016/12/Westside-Assessment.pdf>

**Instructional Strategies:** Westside teaching staff will use a variety of instructional strategies to help students develop and improve skills in the following areas: character, citizenship, communication, critical thinking and problem solving, collaboration and teamwork, and creativity and imagination.

Please see BELOW for Summative Assessment List.

I have read and understand the **TCJ 20** Course Outline:

Student Name (please print): \_\_\_\_\_ Signature: \_\_\_\_\_

Parent/Guardian Name (please print): \_\_\_\_\_ Signature: \_\_\_\_\_

Parent/Guardian E-Mail address (please print clearly): \_\_\_\_\_

	Term Work (70%)
Unit of Study	Summative Evaluations
Assembly Techniques	Demonstration Assignment/Observational Evaluation
Manufacturing Techniques	Demonstration Assignment/Observational Evaluation/Presentation
Design and Development of Practical Projects	Design Package/ Observational Evaluation
Materials and the Environment	Research and Presentation
Health and Safety	Presentation
	Final Summative (30%)
Final Project	Individual Design and Construction Project (15%)
Portfolio	Presentation of Individual Work (15%)