

Dufferin-Peel Catholic District School Board

St. Joseph S. S.

Course Outline

Department: Technological Education
Course Title: Construction Technology
Course Code: TCJ 4C
Course Type: College
Grade: 12
Prerequisite: Construction Technology, Grade 11
Credit Value: 1.0
Hours: 110 hrs

Ministry Guidelines: Technological Education Guidelines
The Ontario Curriculum Grade 11 and 12
Ministry of Education and Training

Course Description: **Construction Engineering Technology, Grade 12, College Preparation (TCJ4C)**

This course enables students to further develop knowledge and skills related to residential construction and to explore light commercial construction. Students will gain hands on experience using a variety of materials, processes, tools, and equipment and will learn more about building design and project planning. They will continue to create and interpret construction drawings and will extend their knowledge of construction terminology and of relevant building codes and regulations, as well as health and safety standards and practices. Students will also focus on environmental and societal issues related to construction engineering technology, and explore career opportunities in the field.

Prerequisite: Construction Engineering Technology, Grade 11, College Preparation

Teacher: **Mr. Daley**

Revision Date: October 1, 2020

Assessment and Evaluation

Knowledge/Understanding	Quizzes & Tests	25%
Thinking	Written assignments	20%
Communication	Sketching & Drawing Oral Communication Self assessment & evaluation	20%
Application	Practical work	35%
Final Evaluation	Culminating activity (10%) Written exam (20%)	30%
Total		100%

The following table provides a summary of achievement in each percentage grade range and corresponding level of achievement:

<i>Percentage Grade Range</i>	<i>Achievement Level</i>	<i>Summary Description</i>
80-100 %	Level 4	A very high to outstanding level of achievement. Achievement is above the provincial standard.
70-79 %	Level 3	A high level of achievement. Achievement is at the provincial standard.
60-69 %	Level 2	A moderate level of achievement. Achievement is <i>below</i>, but approaching the provincial standard.
50-59 %	Level 1	A passable level of achievement. Achievement is <i>below</i> the provincial standard.
Below 50 %		Insufficient achievement of curriculum expectations. Credit will not be granted in this course.

Teachers, parents and students can be confident that students who are achieving a level 3 are well prepared for work in the next grade or the next course.

Teaching and Learning Strategies

A variety of teaching and learning strategies are used throughout this course including:

- classroom lessons
- collaborative and cooperative learning
- team or group brainstorming
- student teacher conferencing
- independent and collaborative research and testing
- independent study and writing
- individual and group presentations
- developing confidence to contribute to society
- the use of computer technology in the classroom

The teacher will provide all students with the information, resources, guidance, and special accommodations necessary to complete each task safely and successfully. Teachers should also provide opportunities for students to work independently and in groups. Career education, cooperative education and other workplace experiences will also be explored through discussion or exercises.

SPECIAL REQUIREMENTS

This is an intensely practical course. **Daily attendance and participation is vital!**

Safety is of utmost importance when working in the Construction shop. Safety glasses and proper clothing must be worn at all times.

Course Units

UNIT # 1. (SAFETY – hand tool project)

- Dressing stock - notes
- Quiz – Dressing stock
- Shop safety assignment
- Measurement (Imperial & Metric) & Layout tools assignment
- Test – Dressing stock, shop safety, measurement, layout tools
- Hand tools
 - Hand planes assignment
 - Handsaws assignment
- Quiz – Hand planes & Handsaws

UNIT # 2. (PERSONAL PROJECT – teacher’s choice)

- Wood joints
- Woodworking machines
Table saw / Radial Arm saw assignment
Jointer / Thickness planer assignment
- Test – Table saw, RAS, Jointer, Thickness planer
- Power tools
- Quiz - power tools

UNIT # 3. (SCHOOL & COMMUNITY PROJECTS)

- Footings & foundations
- Floor systems assignment
- Wall framing systems assignment
- Roof systems
- Quiz – floor systems, wall framing systems
- Quiz – building construction terminology

UNIT # 4. (PLUMBING AND ELECTRICAL CONNECTIONS)

- Plumbing assignment
- Electrical wiring assignment
- Quiz – plumbing, electrical wiring

FINAL ASSESSMENT & EVALUATION

- Culminating Activity
- Written Exam