

**HOLY TRINITY CATHOLIC SECONDARY SCHOOL
COURSE OUTLINE**



Construction Technology: TCJ30

Course Prerequisite: TCJ40

Course Description:

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 will explore career opportunities in the field.

Catholic Graduate Expectations: The purpose of Technological Education in the Catholic faith community is to enable young adults to develop and develop their ability to find solutions and develop products that benefit others in a way that models gospel values. The focus of the curriculum is to enable students to become critical and innovative problem-solvers who question the use of resources and understand the implications of technological innovations. An emphasis on process as well as results ensures that students create products and provide services that recognize our God-given responsibility to respect the dignity and value of the individual and the protection of the environment.

Units of Study

| TOPIC | DESCRIPTION |
|---------------------|---|
| Introduction | Course overview. Covers a basic overview of the course, projects, and expectations with respect to work habits, behavior, attendance, cooperation, and creating a productive and respectful working environment. |
| Safety | School Emergency Protocol (fire drills, exits, and lockdown procedures). General shop safety, tool and equipment safety, and other material handling safety requirements as they apply to working in the shop. |
| Fundamentals | Use correct terminology, identify component and systems of building, the properties of various materials, and understanding proper and safe tool use. |

| | |
|--|---|
| Design, layout, and planning | Design construction projects, individually and in groups, apply the design process to plan and develop projects and other problem solving process and techniques. Use, produce, and interpret drawings accurately in planning and building projects. Apply math skills required in planning and building projects. |
| Fabrication, assembly, finishing skills | Use tools, equipment, and techniques correctly and safely when preparing materials; use fabrication and assembly techniques safely and accurately and in correct sequence; prepare surfaces and apply finishing products, trim, and hardware correctly and safely. |
| Professional practices | Identify and follow health and safety regulations; WHMIS; identify career opportunities in industry and describe training and work habits employers require. Identify various members of wall framing components and general understanding of the Ontario building code. |
| Technology and the environment | Understand the way in which the construction industry affects the environment; reuse and recycling materials and the introduction of engineered materials. |

Health and Safety

Health and safety are of paramount importance in the technological education programs. As part of every course, students must be made aware that health and safety are everyone's responsibility, at home, at school, and in the workplace. Before using equipment, students must be able to demonstrate knowledge of the equipment being used and the procedures necessary for its safe use. This consists of being present for teacher demonstrations, completing written or oral tests and demonstrating correct and safe use of all required tool to complete projects.

Evaluation

| | |
|-------------------------|------------------|
| 70% | 30% |
| Knowledge/Understanding | Culminating Task |
| Thinking/Inquiry | 15% |
| Communication | Exam |
| Application | 15% |

Course Resources Required:

| |
|--|
| CSA: Safety glasses and hearing protection. |
|--|

For a detailed course description of this course, please visit <https://www.edu.gov.on.ca/eng/curriculum/secondary>