Construction Engineering Technology – TCJ4C

Course Information & Evaluation

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.

PREREQUISITE: Construction Engineering Technology, Grade 11, College Preparation

Overall Expectations

Fundamentals

A1. demonstrate an understanding of natural and manufactured materials, construction processes, and building components;
A2. demonstrate an understanding of building codes, regulations, and standards that govern residential and light commercial construction projects;
A3. demonstrate an understanding of the systems in residential and light commercial buildings;
A4. demonstrate an understanding of design considerations for residential and light commercial buildings;
A5. use construction terminology correctly.**Design, Layout, and Planning Skills**
B1. apply a design process and other problem-solving processes and techniques as appropriate to develop solutions for construction problems or challenges;
B2. create and interpret drawings of residential and light commercial construction projects;
B3. determine, use, and communicate accurate technical data in the design of construction projects;
B4. plan systems for residential and/or light commercial buildings;
B5. apply the mathematical skills required in designing, laying out, and preparing estimates for residential and light commercial construction projects.

Fabrication, Assembly, and Finishing Skills

C1. demonstrate appropriate technical skills, including the safe use of construction tools, equipment, and materials;
C2. demonstrate safe and accurate building techniques;
C3. apply various finishes to complete residential and light commercial construction project.

Technology, the Environment, and Society

D1. identify and evaluate measures that can be taken to conserve resources on construction projects;
D2. explain how the construction industry and society affect each other

Professional Practice & Careers

E1. demonstrate an understanding of and comply with health and safety regulations and practices specific to the construction industry;
E2. demonstrate an understanding of careers in the construction industry and the education, training, and workplace skills required for these careers..

Strands / Units Topics

1.Power Tool Uses and Safety
2. Power Machine Uses and Safety
3. Shop Procedure and Safety
4. Residential Construction
5. Purchasing a Home
6. Architecture (blueprint reading)
7. Surveying
8. Shed Construction (group work)
9. Building Codes and Regulations
10. Careers in the Industry
11. Summative: (x2)

Course Text and Reference Resources

Online resources, and Technical resources

Assessment & Evaluation Policy

Refer to the attached SWL Assessment and Evaluation Policy April 2011

Attendance Policy

Students are responsible for catching up on class notes and completing any assignments or tasks involving equipment for which they were absent. ***It is up to the students to ask the instructor what they missed when they return***. Parents will be contacted for any student who skips class. After three such skips, the student will be referred to the Vice-Principal.

70% Formative Evaluation

Student evaluation is based on the Overall Expectation found in the Ontario Curriculum using various forms, such as, but, not limited to, quizzes, tests, assignments, projects, presentations, safety practices, and activities.

30% Summative Evaluation

Each student will complete <u>two</u> summative projects representing 30% of their mark.

Certain forms of these summative evaluations (exams, final tests, performance based tasks, etc.) are time sensitive. This means they must be completed at and within a specific time. Students <u>must</u> be present for these summative evaluations. Any absence will result in a mark of zero, unless validated by an official certificate. (ex. Medical Certificate). Students and parents will be informed well in advance of summative evaluation dates.

Classroom Expectations

1. Students are expected to be willing and active participants in all course activities. This includes completing all assignments both on time and with sufficient effort, and honoring all of their commitments.

2. Students will contribute to a positive learning environment by: • practicing safe work habits at all times • being respectful to others and respecting their property • treating all equipment with care and ensuring proper knowledge of its operation • reporting unsafe or hazardous situations to the instructor • reporting software or equipment problems to the instructor • cleaning up their workspace and putting everything away before they leave the class*** Electronic storage devices, headphones and open toed shoes cannot be used in the shop areas * No food or drink is permitted in any of the equipment areas.**