Technological Design- TDJ3M
Course Information & Evaluation

This course examines how technological design is influenced by human, environmental, financial, and material requirements and resources. Students will research, design, build, and assess solutions that meet specific human needs, using working drawings and other communication methods to present their design ideas. They will develop an awareness of environmental, societal, and cultural issues related to technological design, and will explore career opportunities in the field, as well as the college and/or university program requirements for them.

PREREQUISITE: None

Overall Expectations

Fundamentals

A1. demonstrate an understanding of factors and relationships that affect technological design and the design process;

A2. describe appropriate strategies, techniques, and tools for researching, organizing, planning, and managing design projects and related activities, with an emphasis on financial, human, and material resources;

A3. demonstrate an understanding of drafting standards, conventions, and guidelines for various types of drawings used to represent designs;

A4. demonstrate an understanding of a variety of tools, materials, equipment, and processes used to build, test, and evaluate models and prototypes;

A5. use appropriate terminology and communication methods to document, report, and present progress and results. methods to document, report, and present progress and results.

Skills

B1. use appropriate strategies and tools to research and manage design projects and related activities;

B2. apply appropriate methods for generating and graphically representing design ideas and solutions;

B3. create and test models and/or prototypes, using a variety of techniques, tools, and materials;

B4. use a variety of formats and tools to create and present reports summarizing the design process and to reflect on decisions made during the process.

Technology, The Environment & Society

C1. demonstrate an understanding of environmentally responsible design practices, and apply them in the technological design process and related activities;

C2. describe the relationship between society and technological development.

Professional Practice & Careers

D1. describe and apply health, safety, and environmental practices related to technological design;

D2. identify career opportunities in fields related to technological design, and describe the training and education required for these careers.

Strands/Units Topics

1. Introduction	5. Model Design Construction
2. CAD Drafting and Design	6. 3-D Modelling Project
3. Architectural Design Project	7. Summative (x2)
4. Mechanical Mechanism Design Construction	

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 two 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 must 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.**