Course Outline

Course Information

Course Title: Applied Engineering

Course Code: DED40S

Year: 2025/2026

Location: Crocus Plains Regional Secondary School, Room 211

Instructor Information

Instructor Name: Mr. Jason Klimack

Email: Klimack.Jason@bsd.ca

Office Phone: 1.204.729.0309

Communication: Best methods of communication is through email.

Course Description

Overview: Applied Engineering is intended for students transitioning to industry or post-secondary education from design drafting. Curriculum content provides for the application of the engineering design process for client-specific engineering and manufacturing projects. Communication with the client and engineering professionals will determine the project scope and proposed design solutions. Students will design and modify their proposal and create the required presentation and working drawings. Students will present their design solutions to others.

Prerequisites: DEB40S – Advanced Engineering.

Course Objectives

- Collaborate with a client to define design problems.
- Research information for design solutions.
- Synthesize information into design solutions.
- Create functional design solutions.
- Present design solutions through a variety of media (verbal, drawings, models, etc.)

Assessment

Formative Assessments:

Self-assessments, survey questions, weekly assignment feedback.

Summative Assessments:

The course is ungraded, meaning that individual assignments/projects will not be assigned a mark directly. Instead, at the end of each month or large project the students will meet with the instructor in one-on-one meetings to discuss their overall progress, understanding, and achievements to establish a "grade" for the topics covered in that section. In this meeting, each student must justify with sufficient evidence the grade that they have chosen for themself.

Note, the teacher reserves the right to NOT use the grade the student presents.

There is NO final exam for this course.

Course Schedule

Unit	Number of Weeks
Warm up activity	1
iLogic	1-2
Introduction to the Engineering Design Process	1
Portfolio Creation	1
Creating concepts of design solutions	1
Design and build design solution	1
Test / Evaluate design solutions	1
Technical writing and documentation	2
Presentations of design solutions	1
Client design problems / Application of the engineering design process	remaining

Course Policies

Attendance: Students that are absent for one or more days are responsible for ensuring that they catch up with any content that was covered during their absence prior to the end of the unit, or with the teacher's permission of an extension PRIOR to the absence.

Academic integrity: There is a zero-tolerance policy for academic dishonesty (cheating), including but not limited to: replicating projects from the internet, completing or submitting other students work, plagiarism, or using AI to write content for any written assessments. Failure to comply with this policy will result in a grade of zero for that assessment and may result in the reporting of the incident to the student's parents or the school administration.

Class participation: All students are expected to participate in class activities and discussions.

Personal electronic devices: All personal electronic devices are prohibited during class time including cellphones, smart watches, ear buds and headphones. If a student is caught using their device they will be asked to place the item in the "Phone Jail" for the remainder of the class. If the issue continues then either the students parents or school administration will be contacted.

Late Work: Projects will be assessed at the time of meeting with each student. Students are to self-assess throughout the course prior to the meeting. If the student has not completed sufficient progress on their projects by the time of the meeting, this will be reflected in the student's grade.