



Ancaster High School
Course Outline 2013/2014
Transportation Technology
Grade 10 TTJ20
Technological Education



TEACHER: Mr. M. Sampson

PREREQUISITE: none

HOURS: 110

CREDIT VALUE: 1

DEPARTMENT HEAD: Mr. K. Lemieux

TEXTBOOK: Automotive Fundamentals

Auto Excellence

GUIDELINE: *The Ontario Curriculum Grades 9 and 10, Technological Education, 2009 Revised*

The text will be provided free of charge. However, the student is responsible for returning the book in reasonable condition. The student will be charged for loss or damage.

**A. TRANSPORTATION TECHNOLOGY
FUNDAMENTALS**

OVERALL EXPECTATIONS

By the end of this course, students will:

- A1.** explain how engines work to produce power, and identify the function and explain the maintenance requirements of the cooling, lubrication, and fuel systems;
- A2.** identify the major components and describe the function and operation of various types of drivetrains;
- A3.** identify and describe the major systems and components of vehicles, aircraft, and/or watercraft;
- A4.** demonstrate an understanding of the technical and mathematical knowledge and skills required to properly maintain and repair vehicles, aircraft, and/or watercraft.

**B. TRANSPORTATION
TECHNOLOGY SKILLS**

OVERALL EXPECTATIONS

By the end of this course, students will:

- B1.** use problem-solving processes to design and fabricate a project that converts and uses energy, and to address various problems or challenges related to vehicles or craft;
- B2.** demonstrate the safe and correct use of a variety of maintenance and repair techniques for servicing powertrain components;
- B3.** perform basic service on various vehicle, aircraft, and/or watercraft systems and components;
- B4.** follow correct procedures for the preventive maintenance and care of vehicles, aircraft, and/or watercraft.

**C. TECHNOLOGY, THE ENVIRONMENT,
AND SOCIETY**

OVERALL EXPECTATIONS

By the end of this course, students will:

- C1.** demonstrate an understanding of ways in which various aspects of the transportation industry affect the environment and ways in which harmful effects can be remedied or reduced;
- C2.** demonstrate an understanding of the relationship between various aspects of the transportation industry and society.

D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES

OVERALL EXPECTATIONS

By the end of this course, students will:

D1. demonstrate an understanding of and compliance with occupational health and safety regulations and standards in transportation technology;

D2. identify career opportunities in the transportation industry and the education and training required for them.

TEACHING STRATEGIES (include, but not limited to):

- Providing appropriate accommodation for students on IEP's and for English Language Learners and for those who are First Nations, Metis or Inuij;
- Utilizing Student Support and Student Alternative Support Programs;
- Contacting parents for support and assistance;
- Using diagnostic assessment and check-in points to monitor student progress;
- Providing differentiation of instruction and assessment to meet the needs of diverse learners;
- Providing ongoing descriptive feedback that is clear, specific, meaningful, and timely to support improved student learning;
- Creating lessons, and assessment and evaluations, that are carefully planned to relate to the curriculum expectations and learning goals, and as much as possible to the interests, learning styles and preferences of all students;
- Developing students' self-assessment skills to enable them to assess their own learning, set specific goals, and plan next steps for their learning.

ASSESSMENT AND EVALUATION OF WORK:

Assessment and evaluation will be based on the provincial curriculum expectations and the achievement levels outlined in the curriculum policy document. Students will be given numerous and varied opportunities to demonstrate their achievement of the expectations across the four categories of knowledge and skills.

Midterm and final marks will be calculated using the prescribed learning strands with the following weighting:

Strand	Weighting
Fundamentals	15%
Skills	25%
Technology, The Environment and Society	15%
Professional Practice and Career Opportunities	15%

Evidence of achievement can be determined from a variety of sources, including but not limited to: in-class assignments, class presentation, open-ended questions, observations, quizzes, unit tests, investigations, projects, conversations, portfolios, anecdotal records, self-assessments, etc. Not every assessment will count towards a student's final grade. The primary purpose of assessment and evaluation is to improve student learning.

CULMINATING ACTIVITY

Culminating activities occur at or near the end of a course. They form part of the final 30% of a student's mark. If a student is absent from a culminating activity, they must provide a doctor's note. The culminating activity will not normally be re-scheduled.

For this course, the culminating activity will occur: **Late December/Early January**
And will consist of the following: *career exploration, hands on project, poster, or display.*

LEARNING SKILLS

These skills will be assessed using the following key:

Independent Work

E = Excellent

Collaboration

G = Good

Organization

S = Satisfactory

Initiative

N = Needs Improvement

Responsibility

Self- Regulation

MARK CALCULATION:

Interim: A report will be given to reflect how well the student is progressing with suggestions for improvement.

Term Work: 70% of the overall grade (from all term evaluations)

Final Evaluation(s): 30% of the overall grade (may include culminating activity, final exam or a combination of the two)

Teachers will take various considerations into account before making a decision about the grade to enter on the report card. Determining a report card grade will involve teacher's professional judgement and interpretation of the evidence and should reflect the student's most consistent level of achievement with special considerations given to the more recent evidence. Marks are not merely a calculation of averages, but an evaluation of the consistent achievement of the student.

CONTACT INFORMATION:

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Extra Help Sessions: