Ancaster High School
Course Outline 2013/2014
Transportation Technologies
Grade 12 TTL4C
Technological Education

TEACHER: Mr. M. Sampson **PREREQUISITE:** TTL3C **HOURS:** 220 **CREDIT VALUE:** 2

DEPARTMENT HEAD: Mr. K. Lemieux **TEXTBOOK:** From The Ground Up Aircraft Sheet Metal FTM

GUIDELINE: *The Ontario Curriculum Grades 11 and 12, 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. demonstrate an understanding of the operation of engine management systems;
A2. demonstrate an understanding of the principles of operation of power transfer devices;
A3. demonstrate an understanding of troubleshooting techniques used to diagnose problems in powertrain systems;
A4. assess the effect of modifying a vehicle, aircraft, or watercraft;
A5. demonstrate accurate and appropriate use of technical and mathematical knowledge and skills in the study of transportation technology.

B. TRANSPORTATION TECHNOLOGY SKILLS

OVERALL EXPECTATIONS

By the end of this course, students will:
B1. demonstrate the use of a variety of troubleshooting techniques to service and repair engine management systems;
B2. inspect, service, and repair drivetrain components in compliance with manufacturers' standards;
B3. use proper procedures for the inspection, servicing, and repair of steering/control, suspension, brake, and body systems;
B4. develop appropriate solutions to a variety of repair challenges.

C. TECHNOLOGY, THE ENVIRONMENT, AND SOCIETY

OVERALL EXPECTATIONS

By the end of this course, students will:
C1. demonstrate an understanding of environmental issues in the transportation industry, and use best practices to remedy or reduce the environmental effects of using specific products or processes;
C2. assess the effects that various aspects of the transportation industry have on society.

D. PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES

OVERALL EXPECTATIONS

By the end of this course, students will:
D1. demonstrate the use of professional work practices and procedures and compliance with occupational health and safety regulations and standards;
D2. describe career opportunities in the transportation industry and the training and qualifications 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 Inui;
- 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	**10**
Skills	**40**
Technology, The Environment and Society	**10**
Professional Practice and Career Opportunities	**10**

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:
And will consist of the following: *Interviews, project completion*

LEARNING SKILLS:

The report card provides a record of the learning skills demonstrated by the student in every course, in the following six categories. However, learning skills are not directly considered in the determination of percentage grades.

Independent Work	These skills will be assessed using the following key:
Collaboration	E = Excellent
Organization	G = Good
Initiative	S= Satisfactory
Responsibility	N = Needs Improvement
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 – say what your course includes)

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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