



COURSE OUTLINE

MPF131

Prepared: Jamie Schmidt Approved:

Course Code: Title	MPF131: MOTIVE POWER ENVIRONMENTAL TECHNOLOGY
Program Number: Name	4041: AUTOMOTIVE REPAIR
Department:	MOTIVE POWER
Semester/Term:	17F
Course Description:	Various applications and developments in the area of technology have an increasing impact on all aspects of human endeavour and have numerous social and economic implications. This course will examine the Motive Power industry and its effect on our environment and economy. You will study the fundamentals of new and emerging environmental technology such as: bio mass fuels, electric and hybrid vehicles. You will be exposed to emerging views and gain an understanding of the impact of the social characteristics of transportation technology and its relation to the environment. This course will explore the impacts of these concepts and practices on everyday life.
Total Credits:	3
Hours/Week:	3
Total Hours:	24
Vocational Learning Outcomes (VLO's):	<p>4041 - AUTOMOTIVE REPAIR</p> <p>#1. Identify basic motive power system problems by using critical thinking skills and strategies and by applying fundamental knowledge of motor vehicle operation, components, and their interrelationships.</p> <p>#11. Prepare logs, records, and documentation to appropriate standards.</p>
Essential Employability Skills (EES):	<p>#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.</p> <p>#2. Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>#5. Use a variety of thinking skills to anticipate and solve problems.</p> <p>#7. Analyze, evaluate, and apply relevant information from a variety of sources.</p> <p>#8. Show respect for the diverse opinions, values, belief systems, and contributions of others.</p> <p>#9. Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.</p> <p>#10. Manage the use of time and other resources to complete projects.</p> <p>#11. Take responsibility for ones own actions, decisions, and consequences.</p>
<small>Please refer to program web page for a complete listing of program outcomes where applicable.</small>	

General Education Themes: Personal Understanding
Science and Technology

Course Evaluation: Passing Grade: 50%, D

Other Course Evaluation & Assessment Requirements: The following semester grades will be assigned to students:

Grade
Definition Grade Point Equivalent
A+ 90 100% 4.00
A 80 89%
B 70 - 79% 3.00
C 60 - 69% 2.00
D 50 59% 1.00
F (Fail) 49% and below 0.00

CR (Credit) Credit for diploma requirements has been awarded.
S Satisfactory achievement in field /clinical placement or non-graded subject area.
U Unsatisfactory achievement in field/clinical placement or non-graded subject area.
X A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.
NR Grade not reported to Registrar's office.
W Student has withdrawn from the course without academic penalty.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Assignments	40%
Presentations	60%

Course Outcomes and Learning Objectives:

Course Outcome 1.

Outline the global trends relating to various fuel sources.

Learning Objectives 1.

- Understand the environmental impacts of fossil fuels
- Debate the impacts of biofuels as an energy trend.
- Discover the social and economic realities of alternative fuels
- Examine the development and infrastructure required for technologies relating to the use of hydrogen as a fuel source.
 - Discuss the circumstances relating to global sources of fossil fuels.

Course Outcome 2.

Discover the benefits and consequences of electricity for transportation

Learning Objectives 2.

- Examine the consequences of using various means of generating electricity (i.e.: coal, uranium , solar ,wind ,water)
- Predict the impact on infrastructure requirements for implementation

Course Outcome 3.

Compare the environmental impacts of the Motive power industry

Learning Objectives 3.

- Discuss the effects of ozone depleting substances on the environment
- Understand the effects of mismanagement of waste products.
- Connect the effects of vehicle emissions on environmental effects such as global warming, acid rain, ground and water pollution.

Course Outcome 4.

Adopt a responsible work ethic relating to the global carbon footprint of the Motive Power industry.

Learning Objectives 4.

- Understand the significance of ongoing maintenance of emission control systems.
- Compare the life cycle assessments of products used in the Motive Power industry from cradle to grave
 - Integrate the historical perspective of Motive power into an understanding of changes necessary to reduce the carbon footprint of the industry.

Date:

Monday, December 18, 2017

Please refer to the course outline addendum on the Learning Management System for further information.