



**DEPARTMENT OF AUTOMOTIVE AND PARTS
COURSE OUTLINE – WINTER 2011 SEMESTER B**

JANUARY 3 – MAY 4, 2012

HA 292 ELECTRICAL II – 2.5 CREDITS 40 HOURS

INSTRUCTOR: Ryan Peterson **PHONE:** 780.835.6733
OFFICE: FTI 224 **E-MAIL:** RPeterson@GPRC.ab.ca

OFFICE Monday through Friday.
HOURS: 8:00 – 8:30 a.m. and 4:00 – 5:00 p.m.

PREREQUISITE(S)/COREQUISITE: HA 291 Electrical I.

REQUIRED TEXT/RESOURCE MATERIALS:

Alberta Apprenticeship and Industry Training Individual Learning Modules*:

190104 d	Test Equipment
190104 f A	Electrical Wiring, Lighting Circuits and Circuit Protection – Part A
190104 f B	Electrical Wiring, Lighting Circuits and Circuit Protection – Part B
190104 g	Basic Electronics
190104 h	Electronic Control Systems

*Part of the AIT General Mechanics Module Package.

CALENDAR DESCRIPTION: This theory course introduces diagnosis and repair of electrical systems found on automotive and heavy equipment applications. Electronic theory, diagnosis and testing are included. Accessory circuit installation and circuit repair projects may be included this course.

Delivery Option – Fairview Campus Only

CREDIT/CONTACT HOURS: 2.5 credits; 40 hours.

DELIVERY MODE(S): Instructor led theory; demonstrations.

OBJECTIVES:

Upon completion of this course the student will be able to:

1. Explain the effects of circuit defects on circuit operation.
2. Explain meter usage to measure voltage, current, resistance and voltage drop and interpret results.
3. Explain potential hazards when charging, boosting or testing a battery.
4. Describe multiple batter circuits in relation to connections and battery compatibility.
5. Understand electrical symbols and wiring diagrams.
6. Describe various battery testing procedures and analyze results.
7. Explain the properties, applications and test procedures for electronic sensors, actuators and control devices.

TRANSFERABILITY: None.

GRADING CRITERIA: Students must complete all required courses with a grade point average of no less than 2.00 and no failing (F) grades. Pass mark of 65%.

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A⁺	4.0	90 – 100	EXCELLENT
A	4.0	85 – 89	
A⁻	3.7	80 – 84	FIRST CLASS STANDING
B⁺	3.3	77 – 79	
B	3.0	73 – 76	GOOD
B⁻	2.7	70 – 72	
C⁺	2.3	67 – 69	SATISFACTORY
C	2.0	65 – 66	
F	0.0	60 – 64	FAIL
F	0.0	55 – 59	
F	0.0	50 – 54	
F	0.0	0 – 49	
WF	0.0	0	FAIL, withdrawal after the deadline

EXAMINATIONS: Multiple choice. Exam 60%; Quizzes 20%; Classroom Projects 20%.

STUDENT RESPONSIBILITIES:

Please refer to the Student Rights and Responsibilities policy in the Grande Prairie Regional College Calendar or at

www.gprc.ab.ca/downloads/documents/StudentRightsandResponsibilities.pdf.

STATEMENT ON PLAGIARISM AND CHEATING:

Please refer to

www.gprc.ab.ca/downloads/documents/Student%20Misconduct%20Plagiarism%20and%20Cheating.pdf regarding plagiarism, cheating and the resultant penalties. These are serious issues and will be dealt with severely.

COURSE SCHEDULE/TENTATIVE TIMELINE: Semester B.