# DEPARTMENT OF HEAVY EQUIPMENT

## HEAVY EQUIPMENT SERVICE COURSE OUTLINE – FALL 2013

## SEPTEMBER 3 – OCTOBER 25, 2013

## HES311 - ELECTRICAL CIRCUITS - 1.5 (40 HOURS)


| | | | |
|---|---|---|---|
| **INSTRUCTOR:** | Rob Young | **PHONE:** | 780.835.6730 |
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**OFFICE HOURS:** 8.00am to 4.30pm

**PREREQUISITE(S)/COREQUISITE:** Successful completion of Semesters 1 and 2.

**REQUIRED TEXT/RESOURCE MATERIALS:**

**Alberta Apprenticeship and Industry Training Individual Learning Modules**
**Heavy Equipment Technician (HET)**

190302dA – Off-Road Electrical Circuit Fundamentals – Part A

190302dB - Off-Road Electrical Circuit Fundamentals – Part B

190302e – Off-Road Electrical Circuit Service

190404aA – Truck Electrical Circuit Fundamentals – Part A

190404aB – Truck Electrical Circuit Fundamentals – Part B

190404b – Truck Electrical Circuit Service

**CALENDAR DESCRIPTION:** Truck and machine electrical and accessory circuits are examined in this course.
Delivery Option: Fairview Campus Only

**CREDIT/CONTACT HOURS:** Credits: 1.5 / Contact Hours: 40.

**DELIVERY MODE(S):** Lecture and lab components.
**TRANSFERABILITY:** None.

**GRADING CRITERIA:** Students must complete all required courses with a grade point average of no less than 2.7 and no failing (F) grades. A passing grade in this course is a **minimum of 70%.**

**Electrical Circuits..... 40 / 240 hours = 16 % of Semester 3 mark**

**Exams Average = _____ x 45%**

**Class Assignments/Quizzes = _____ x 30%**

**Shop Total _____ x 45%**

**HES 311 FINAL MARK = _____ %**

| 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** | |
| **F** | **0.0** | **67 – 69** | **FAIL** |
| **F** | **0.0** | **63 – 66** | |
| **F** | **0.0** | **60 – 62** | |
| **F** | **0.0** | **55 – 59** | |
| **F** | **0.0** | **50 – 54** | |
| **F** | **0.0** | **0 – 49** | |
| **WF** | **0.0** | **0** | **FAIL, withdrawal after the deadline** |

**STUDENT RESPONSIBILITIES:**

This is an adult education environment. Enrolment at Grande Prairie Regional College assumes that the student will become a responsible citizen of the College. As such, each student will display a positive work ethic, take pride in and assist in the maintenance and preservation of Institute property, and assume responsibility for his/her education by researching academic requirements and policies, demonstrating courtesy and respect toward others; and respecting instructor expectations concerning attendance, classroom and shop rules, safety, assignments, deadlines and appointments. Students are learning skills to prepare them for the work environment.

Following the guidelines in "Student Rights and Responsibilities" in the GPRC College calendar assist us all in maintaining an adult learning environment. 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:**

Refer to the Student Conduct section of the GPRC Calendar at http://www.gprc.ab.ca/programs/calendar/ Pages 44 to 46 or the College Policy on Student Misconduct: Plagiarism and Cheating at http://www.gprc.ab.ca/about/administration/policies/. **

**Note: all Academic and Administrative policies are available on the same page.

**COURSE SCHEDULE/TENTATIVE TIMELINE:**

- Construct Functioning Circuits with Consideration to Function and Capacity
- HID Lighting
- HVAC Controls
- Entertainment Systems
- On Board Communication Circuits
- Monitoring Circuits and Systems