



DEPARTMENT OF ELECTRICAL/MILLWRIGHT

COURSE OUTLINE – FALL 2013 – SEPTEMBER 3 – DECEMBER 20, 2013

MW102 MILLWRIGHT/MACHINIST SHOP – 10.5 CREDITS 176 HOURS

INSTRUCTOR: Ken Rueckert

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OFFICE: TT126

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OFFICE HOURS: 8:00 – 4:15

PREREQUISITE(S)/COREQUISITE: None

REQUIRED TEXT/RESOURCE MATERIALS: Alberta Apprenticeship and Industry Training Millwright/Machinist Individual Learning Modules First Year

CALENDAR DESCRIPTION: This course is designed to develop the student's skill of applying theoretical knowledge. Students will be required to demonstrate competency by using millwright & machinist equipment as each theoretical component is covered throughout the course. Safety will be emphasized.

CREDIT/CONTACT HOURS: 10.5 credits, 11 hours per week for 16 weeks

DELIVERY MODE(S): Instructor led; project based.

OUTCOME:

- **Measurement and Layout**
- **Benchwork**
- **Threads and Fasteners**
- **Grinders and Saws**
- **Machining**
- **Metallurgy**
- **Machine Alignment**
- **Rigging**

TRANSFERABILITY: N/A

GRADING CRITERIA:

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	63 – 66	
C ⁻	1.7	60 – 62	
D ⁺	1.3	55 – 59	MINIMAL PASS
D	1.0	50 – 54	
F	0.0	0 – 49	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

EVALUATIONS:

Project #1 2.5%

Project #2 20%

Project #3 2.5%

Project #4 20%

Project #5 15%

Project #6 40%

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.

ATTENDANCE REQUIREMENTS:

Lack of regular attendance will have a bearing on student evaluation. Regular attendance and punctuality in all courses is mandatory. Failure to maintain the necessary level of attendance may result in the offending student being withdrawn from the course. Certain unavoidable absences may be excused by the instructor. In such cases the student shall make every effort to inform the instructor prior to being absent. Absence from class must fall into the following categories to be excusable:

- Severe family or personal illness.
- Bereavement.
- Road/weather conditions.
- Pre-arranged or pre-approved absence (to be approved PRIOR to absence).

Students who accumulate 30 hours of absence within the program will be placed on academic probation. If attendance continues to be a problem, program staff will consider action on a case by case basis. Late entry to class will be considered 1.5 hours late.

STATEMENT ON PLAGIARISM AND CHEATING:

Refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at www.gprc.ab.ca/about/administration/policies/**

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

COURSE SCHEDULE/TENTATIVE TIMELINE: 11 hours per week for 16 weeks

PROJECT NAME	ALLOTTED TIME
Drill Bit Sharpening Exercise	12 Hrs.
Drill Gauge Project	32 Hrs.
High Speed Steel Tool Bit Project	12 Hrs.
Cannon Project	50 Hrs.
Rim & Face Shaft Alignment Exercise	20 Hrs.
Rigging Exercise	4 Hrs.
Oxyacetylene Exercise	12 Hrs.
Metallurgy (Heat Treatment) Exercise	12 Hrs.
Laser Shaft Alignment	4 Hrs.
Gear Carrier Project	18 Hrs.