



**DEPARTMENT OF SCIENCE**

**COURSE OUTLINE – MA1130 ELEMENTARY CALCULUS I  
FALL 2015**

**INSTRUCTOR:** Dallas Sawtell **PHONE:** 539-2989  
**OFFICE:** C412 **E-MAIL:** dsawtell@gprc.ab.ca

**OFFICE HOURS:** Friday 12-1 and any other times I’m in my office  
**DELIVERY MODE(S):** Lecture: A2 D2 W F 1:00-2:20 J226  
Seminar: A2 M 2:30-4:20 J202 D2 W 2:30-4:20 J204

**PREREQUISITE(S):** Math 30-1 or equivalent  
**REQUIRED TEXTS:** Calculus Single Variable by James Stewart any edition

**CALENDAR DESCRIPTION:**This course will include a review of analytic geometr; functions, limits, continuity; differentiation of elementary functions; applications to maxima, minima and rates; introduction to integration;, fundamental theorem; numerical integration; and areas and other applications of the definite integral to areas.  
**CREDIT AND HOURS:** 3 (3-2-0)

**LEARNING OUTCOMES:**

- 1.4-1.8 Limits, Continuity and The Definition of a Derivative
- 2.1-2.9, 6.2-6.4 Derviatives of Polynomials, Exponentials, Logarithms, Trigonometric Functions, the Product and Quotient Rule, Chain Rule, Implicit Differentiation, Related Rates and Linear Approximation, Differentials
- 3.1-3.5,3.7,3.9 Maximum and Minimums, Mean Value Theorem, Rolle's Theorem, Increase, Decrease, Graphing, Optimization Problems, Antiderivatives
- 4.1-4.5 Areas and Distances, The Definite and Indefinite Integral, The Fundamental Theorem of Calculus, The Substitution Rule
- 5.1 Area Between Curves

**COURSE OBJECTIVES:** A successful student will be able to adequately demonstrate an understanding of the calculus concepts stated in the outcomes.

**COURSE SCHEDULE:** 1.4-1.8, 2.1-2.9, 6.2-6.4, 3.1-3.5, 3.7, 3.9, 4.1-4.5, 5.1

**EVALUATIONS:** Worksheets 10%  
Quizzes 15% Every Friday, starting Sept. 18  
Midterm 25% Wednesday, Oct. 21  
Final Exam 50% Dec. 10-19 inclusive including Saturdays and evenings

**No calculators are allowed on quizzes, midterms or the final exam**

**GRADING CRITERIA:**

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A <sup>+</sup>	4.0	95 – 100	EXCELLENT
A	4.0	90 – 94	
A <sup>-</sup>	3.7	85 – 89	FIRST CLASS STANDING
B <sup>+</sup>	3.3	80 – 84	
B	3.0	75 – 79	GOOD
B <sup>-</sup>	2.7	70 – 74	
C <sup>+</sup>	2.3	66 – 69	SATISFACTORY
C	2.0	62 – 65	
C <sup>-</sup>	1.7	58 – 61	
D <sup>+</sup>	1.3	55 – 57	MINIMAL PASS
D	1.0	50 – 54	
F	0.0	0 – 49	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

**STUDENT RESPONSIBILITIES:** Students are responsible for all lecture material, seminars and readings. Students are expected to practice the material by doing problems from the textbook. No late worksheets will be accepted. Quizzes cannot be made up if missed. If the midterm is missed due to illness the weight will be put on the final (ie. the final will be worth 75%). If the final is missed due to illness it will be deferred (see calendar for information). A doctor's note and a phone message or email will be required in all cases.

Cellphone use is not permitted in the classroom. This includes texting. Please turn off and put away your cellphone during class. You may be asked to leave the classroom if using a cellphone. No recording of any kind is allowed in the class, seminar or during consultation with the instructor.

**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/\\*\\*](http://www.gprc.ab.ca/about/administration/policies/**)

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

**TRANSFERABILITY:** See [www.gprc.ab.ca](http://www.gprc.ab.ca) and [www.acat.gov.ab.ca](http://www.acat.gov.ab.ca)

\*\* Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions and may not meet the prerequisite requirements for other math courses. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability