DEPARTMENT OF SCIENCE

COURSE OUTLINE – MA1130 ELEMTARY CALCULUS I
WINTER 2017

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

OFFICE HOURS:
DELIVERY MODE(S): Lecture: **C3**   W F 1:00-2:20 J202   Seminar: **C3**   R   2:30-4:20   J226
Lecture: **A3 B3** T R 8:30-9:50 J228   Seminars: **A3** M 2:30-4:20 J202   **B3**   T 2:30-4:20 J227

PREREQUISITE(S): Math 30-1 or equivalent

REQUIRED TEXTS: Open (free) textbook at www.lyryx.com Calculus Early Transcendentals by David Guichard. Click on the book and then download PDF. You can use the online version or print out what you need. You can also buy a black and white version https://www.createspace.com/6511746 Or a colour one https://www.createspace.com/6509966 .

CALENDAR DESCRIPTION: This course will include a review of analytic geometry; 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:

3.1, 3.3-3.7	Limits and continuity
4.1-4.7, 4.9	Derviatives of Polynomials, Exponentials, Logarithms, Trigonometric Functions, the Product and Quotient Rule, Chain Rule, Implicit Differentiation
5.1-5.4.2, 5.6, 5.7	Related Rates and Linear Approximation, Differentials, Maximum and Minimums, Mean Value Theorem, Rolle's Theorem, Increase, Decrease, Concavity, Graphing, Optimization Problems
6.1-6.3	Areas and Distances, The Definite and Indefinite Integral, The Fundamental Theorem of Calculus
7.1, 8.1-8.2	Substitution Rule, Distance, Velocity, and Acceleration, 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: Follow the outcomes. May be in a slightly different order.

EVALUATIONS:

Worksheets	10%	In the seminars
Quizzes	15%	Every Thursday or Friday, starting Jan. 19
Midterm	25%	Wednesday, March 1 and Thursday, March 2
Final Exam	50%	April 17-27 inclusive including Saturdays and evenings

No calculators or formula sheets 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⁺	4.0	95 – 100	**EXCELLENT**
A	4.0	90 – 94	
A⁻	3.7	85 – 89	**FIRST CLASS STANDING**
B⁺	3.3	80 – 84	
B	3.0	75 – 79	**GOOD**
B⁻	2.7	70 – 74	
C⁺	2.3	66 – 69	**SATISFACTORY**
C	2.0	62 – 65	
C⁻	1.7	58 – 61	
D⁺	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

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 and 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