DEPARTMENT OF SCIENCE

COURSE OUTLINE – WINTER 2020
MA 1150 A3 ELEMENTARY CALCULUS II – 3 (3-1.5-0) 67.5 HOURS OVER 15 WEEKS

INSTRUCTOR:	Tom Kaip	**PHONE:**	(780) 539-2963
OFFICE:	J218	**EMAIL:**	tkaip@gprc.ab.ca

OFFICE HOURS: TBA

PREREQUISITE: MA1130, MA 1140 or MA 1000

REQUIRED TEXT/RESOURCE MATERIALS:

Open (free) textbook at www.lyryx.com. Calculus: Early Transcendentals by David Guichard.

CALENDAR DESCRIPTION:

Applications of integration to areas, volumes, work, force and arc-lengths are included in this course. Differentiation and integration of exponential, logarithmic and trigonometric functions; techniques of integration; indeterminate forms and improper integrals.

DELIVERY MODE(S):

Lecture:	A3	13:00 – 14:20	W F	J226
Seminar:	AS1	1300-14:20	M	J226

COURSE OBJECTIVES: The course will cover techniques of integration; inverse functions; L'Hospital's rule; improper integrals; approximate integration; applications of integrals.

LEARNING OUTCOMES: At the end of this course, students should be able to: evaluate integrals by integration by parts, inverse substitution, trigonometric substitution, and partial fractions; compute limits using L'Hospital's rule; evaluate improper integrals; approximate integrals using Midpoint, Trapezoid, and Simpson's rules; identify invertible functions and differentiate their inverses; evaluate derivatives and integrals involving logarithmic, exponential, inverse trigonometric, hyperbolic and inverse hyperbolic functions; apply integration to solve problems involving volume, surface area, arc length, work, probability.

TRANSFERABILITY:

Please consult the Alberta Transfer Guide for current transfer information (www.albertatransfer.com)

Note: A grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. **Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability.**

GRADING CRITERIA:

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	90-100		C+	2.3	67-69
A	4.0	85-89		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

EVALUATIONS:

Quizzes: 25%

Midterm: 25%

Final Exam: 50%   (Cumulative and scheduled during exam period, TBA)

Note: There will be no make-up quizzes or exams. If a quiz/test are missed for a valid reason and proper documentation is provided, then the weight of the quiz/test will be transferred to another component. Quizzes will be held approximately weekly. The final exam will be written during the exam period. It is the student's responsibility to be available to write the exam at the scheduled time. Writing early is not permitted. Use of calculators is not permitted on the quizzes or exams.

STUDENT RESPONSIBILITIES:

Attend all lectures and seminars. If a lecture or seminar is missed, it is the student's responsibility to catch up on the material and obtain the missing lecture notes.

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/

COURSE SCHEDULE/TENTATIVE TIMELINE:

The course will include sections 4.8, 5.5 and most sections from Chapters 7 and 8 of the text.