DEPARTMENT OF SCIENCE

COURSE OUTLINE – WINTER 2021

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

INSTRUCTOR:	**Thomas Kaip**	**PHONE:**	780-539-2963
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OFFICE HOURS:	TBA		

WINTER 2021 DELIVERY:

Remote Delivery. This course is delivered remotely. There are no face-to-face or onsite requirements. Students must have a computer with a webcam and reliable internet connection. Technological support is available through helpdesk@gprc.ab.ca

Note: GPRC reserves the right to change the course delivery.

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.

PREREQUISITE: MA1130, MA 1140 or MA 1000

REQUIRED TEXT/RESOURCE MATERIALS:

Open (free) textbook at www.lyryx.com.
- Calculus: Early Transcendentals by David Guichard.
- Calculus: Volume 1 and Volume 2 openstax

DELIVERY MODE(S):

Lecture:	A3	13:00 – 14:20	T	R
Seminar:	AS1	11:30 – 12:50	M	

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 more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page http://www.transferalberta.ca.

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:

Tests (4)   64%   (each test is worth 16%, scheduled approximately 3 weeks apart)

Final Exam: 36%   (Cumulative and scheduled during exam period, TBA)

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/