



MATH 101 - COURSE OUTLINE

INSTRUCTOR: Jaclyn Semple

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OFFICE LOCATION: A2507

CLASSROOM: A2206 (Lecture Hall)

CLASS TIMES: Mon/Wed/Fri, 9 – 10:20am

DATES: Jan 3 – Apr 9, 2024

COURSE DESCRIPTION

This is a second course in calculus with emphasis placed on integration. The topics include logarithmic and exponential functions, techniques of integration, improper integrals, linear differential equations, infinite series, and sequences.

COURSE REQUIREMENTS

MATH 100 or equivalent

EQUIVALENCY OR TRANSFERABILITY

Receiving institutions determine course transferability. Find further information at:

<https://www.yukonu.ca/admissions/transfer-credit>

COURSE FORMAT

Weekly breakdown of instructional hours

Lectures: 3 hours per week

Tutorial: 1 hour per week

The course content is covered through lectures, in-class tutorials, and homework assignments using the prescribed textbook and accompanying online homework system. Students with a sound mathematical background can expect to spend 2—4 hours in preparation and study for every hour spent in class.

Delivery format

In-person

Course material will be posted on Moodle and WileyPLUS, including weekly lecture notes, textbook readings, homework problems, announcements, and other useful or interesting material related to the course.

EVALUATION

WileyPLUS Homework	30%
Midterm Test	30%
Final Exam	40%
Total	100%

WileyPLUS Homework (30%)

There will be weekly WileyPLUS homework assignments due during the term, worth a total of 30% of the final grade. Unless prior arrangements have been made with the instructor, late homework will not be accepted and will thus receive a mark of 0.

Midterm Test (30%)

There will be one midterm test worth 30% of the final grade.

Final Examination (40%)

The final examination will cover the entire course and is worth 40% of the final grade. It will be held at the end of the term during the exam period. The exact date of the exam will be announced as soon as it is set by the School of Science. **A minimum mark of 50% on the final exam is required in order to pass the course.**

COURSE WITHDRAWAL INFORMATION

Refer to the YukonU website for important dates.

TEXTBOOKS & LEARNING MATERIALS

- Anton H, Bivens I, Davis S. *Calculus: Single Variable*. 11th Edition. New York: Wiley, 2016.
- WileyPLUS access
- Non-graphing scientific calculator

ACADEMIC INTEGRITY

Students are expected to contribute toward a positive and supportive environment and are required to conduct themselves in a responsible manner. Academic misconduct includes all forms of academic dishonesty such as cheating, plagiarism, fabrication, fraud, deceit, using the work of others without their permission, aiding other students in committing academic offences, misrepresenting academic assignments prepared by others as one's own, or any other forms of academic dishonesty including falsification of any information on any Yukon University document.

Please refer to Academic Regulations & Procedures for further details about academic standing and student rights and responsibilities.

ACADEMIC ACCOMMODATION

Reasonable accommodations are available for students requiring an academic accommodation to fully participate in this class. These accommodations are available for students with a documented disability,

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chronic condition or any other grounds specified in section 8.0 of the Yukon University Academic Regulations (available on the Yukon University website). It is the student's responsibility to seek these accommodations by contacting the Learning Assistance Centre (LAC): LearningAssistanceCentre@yukonu.ca.

TOPIC OUTLINE

Week	Dates	Content (numbers refer to textbook sections)
1	Jan. 3-5	Exponential, Log, and Inverse Functions (Appendix E, 6.1)
2	Jan. 8-12	Derivatives and Integrals of Exponential, Log, and Inverse Functions (6.2-6.3)
3	Jan. 15-19	L'Hôpital's Rule, Exponential, Log, and Inverse Functions (6.5-6.7)
4	Jan. 22-26	Techniques of Integration (7.1-7.3)
5	Jan. 29-Feb. 2	Techniques of Integration cont'd (7.4-7.5)
6	Feb. 5-9	Differential Equations (8.1-8.2)
7	Feb. 12-17	Modelling with Differential Equations (8.4); Midterm
	Feb. 19-23	READING WEEK
8	Feb. 26-Mar. 1	Modelling with Differential Equations cont'd (8.4)
9	Mar. 4-8	Sequences & Series (9.1-9.2)
10	Mar. 11-15	Sequences & Series cont'd (9.3-9.4)
11	Mar. 18-22	Sequences & Series cont'd (9.5-9.6)
12	Mar. 25-28	Sequences & Series cont'd (9.7-9.8)
13	Apr. 2-5	Sequences & Series cont'd (9.9-9.10)
14	Apr. 8-10	Review

Specific dates of topic coverage and assessments may be subject to change.