

**SUNY ALFRED
CALCULUS 2 SYLLABUS**

MATH 2094

Calculus II

September 2022– January 2023

Credit Hours: 4

Prerequisite: Calculus I

Class meets: 225 min per week

(with a C average or higher)

Location: Room 1111

Instructor: Rolland Duttweiler

Genesee Valley Central School

Phone: 585-268-7900 ext 1111

Belmont, NY

Email: rduttweiler@genvalley.org

TEXT: Thomas' Calculus: Early Transcendentals (13th edition)

GENERAL INFORMATION:

This course is being offered through the University through SUNY Alfred. Students will be given an opportunity to earn college credits upon successful completion of this class and an accepted registration from SUNY Alfred. The student is expected to have a working knowledge of the TI-83+ and/or TI-84+ graphing calculator which will be used extensively. Topics will be taken at a quick pace. The student is expected to read and utilize the textbook. Extra assistance is available outside the classroom by appointment either before or after school or during select periods.

ASSESSMENTS AND GRADING:

Your course grade will be determined based on 600 total points. It is simply the percentage of points you earn out of the total possible. The breakdown is as follows:

- (25%) Exams (3) 150 points total
- (16.7%) HW Problem Sets (4) 100 points total
- (25%) Quizzes (6) 150 points total
- (33.3%) Final Exam 200 points

Students **must** achieve a score of 60 or better on the final for college credit to be awarded.

GRADE REPORTING

- The grade recorded on each student's report card will be the grade earned plus 5 points (as per Genesee Valley Central School Policy relating to college courses).
- The grade sent to SUNY Alfred will be a letter grade based on the following scale:

Grade earned (not curved)	Grade earned (curved)	Grade sent to SUNY Alfred
95-100	100-105	A
90-94	95-99	A-
85-89	90-94	B+
80-84	85-89	B
75-79	80-84	C+
70-74	75-79	C
65-69	70-74	D
0-64	0-69	F

CALCULUS CURRICULUM

1. Review of Calculus Topics

- Fundamental Theorem of Calculus
- Substitution
- Trig Functions – Basic
- Area Between Functions
- Volume of revolutions
- L'Hopital's Rule

2. Integral Applications

- Hyperbolic Functions
- Arc Length
- Surface of Revolutions
- Work
- Moments

3. Integral Techniques

- Integration by Parts
- Trig Substitution
- Partial Fractions
- Improper Integrals
- Differentials – Separable and First Order

4. Infinite Series

- Series/Sequences
- Convergence
- Comparisons
- Alternating
- Ratio and Root Tests
- Taylor, Maclaurin and Power Series

Calculus 2 Timeline Fall 2022 (Tentative)

Week of:	Misc Info:	Tests	Assignments	Quizzes
September 5, 2022	Review Derivatives			
September 12, 2022	Fundamental Thm of Calc			#1 --9/16/22
September 19, 2022	Volume, Arc Length	Test #1 (9/23/22)		
September 26, 2022	Logs, Separable Differential		HW #1 -- 9/30/22	
October 3, 2022	Rel Rates of Growth (NC10/7)			#2 --10/6/22
October 10, 2022	Integration Techniques (NC 10/10)		HW #2 -- 10/14/22	
October 17, 2022	Integration Techniques			#3 --10/21/22
October 24, 2022	Integration Techniques			
October 31, 2022	Improper Integrals			
November 7, 2022	Test on Integration (NC 11/10-11)	Test #2 (11/9/22)		
November 14, 2022	Differential Equations		HW #3 -- 11/18/22	
November 21, 2022	Thanksgiving Break			
November 28, 2022	Differential Equations			#4 -- 12/2/22
December 5, 2022	Begin Sequences and Series			
December 12, 2022	Sequences and Series			#5 -- 12/16/22
December 19, 2022	Sequences and Series (NC12/23)		HW #4 -- 12/22/22	
December 26, 2022	Christmas Break			
January 2, 2023	Sequences and Series			#6 -- 1/6/23
January 9, 2023	Sequences and Series	Test #3 (1/13/23)		
January 16, 2023	Review for Final			
January 23, 2023	Final	Final (1/27- 28/23)		

Problem Sets

1) P. 359 # 12, 26, 40, 52, 58, 68, 82, 122;
p. 363 #32, 44

2) p. 416 #4, 8, 12, 16, 18, 22
p. 417-18 #2 and 6

3) p. 454 #14, 18; p. 455 #8a
p. 529 #8, 10, 24, 30, 52, 58
p. 533 #34

4) p. 569 #2, 16, 18, 20
p. 8, 18, 36, 44, 62, 66