

Augusta University
MATH 2011 Syllabus

Course Title	Calculus & Analytic Geometry I
Course Number	MATH 2011 Section C- CRN 12884
Semester/Year	Fall 2021
Days/Time	M 9:00AM-9:50AM; TR 8:30AM-9:45AM
Location	M: HSC 2230; TR HSC 2210
Instructor	Dr. Michael Otunuga
Website	The syllabus and other relevant materials can be found on my website here: https://spots.augusta.edu/OOTUNUGA/
Office	GE 3018
Office Hours	MTR 10:00AM-12; others by appointment. To make an appointment, email in advance when possible.
Phone	(706) 667-4477
E-Mail	ootunuga@augusta.edu
Textbook	Essential Calculus by Stewart, 2 nd edition, ISBN 9781133112297
Course Description	A careful review of the main techniques of limits, derivatives, and integrals of elementary functions of one variable, including transcendental functions. Applications of derivatives and integrals.
Prerequisite	Math 1113 (Precalculus) with a grade C or better or placement.
Calculator	TI-83 or higher, graphing calculators will not be allowed during exam
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to https://www.augusta.edu/compliance/policyinfo/policies.php Cheating, plagiarism, collusion, and any form of academic misconduct are prohibited in this class. For detailed definition of these, see the full text by going to https://www.augusta.edu/compliance/policyinfo/policy/academic-honesty.pdf
Disable Students	Policy for Students with Disabilities: Augusta University believes academically qualified individuals with disabilities should have equal opportunity and access to a quality education. If any person with a disability has difficulty accessing an area on campus, please report these concerns using the ADA Concern Form or ADAFacilities@augusta.edu . If you have a disability request, I suggest that you visit the Testing & Disability Services center at https://www.augusta.edu/tds/

Course Goals:

Course Goals:	<ol style="list-style-type: none">1. An understanding of fundamental concepts of calculus and an appreciation of its applications2. Developing critical thinking skills by applying calculus skills to real world problems3. Obtaining an understanding of the theory in science and engineering mathematics4. Being able to use technology to help solve problems.5. Satisfying program requirements for mathematics, science, and engineering majors
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How each student learning outcome will be practiced and assessed in the course

Course Requirements / Due Dates

Attendance: Attendance is compulsory for this class and will be taken every lecture. Coming late to class (more than 5minutes) and leaving class early, playing with cell phone, working on material for another class, sleeping in class will be counted as an unexcused absent.

Homework: Homework will be assigned in class every Thursday and due the following Monday.

Exams: There will be **3 in-class** tests during the semester on **Sept. 7, Oct. 11, and Nov. 8**. Make-up exams will only be given in the event of a university-excused absence. Inform me on time.

Final Exam: The final exam will be on **Wednesday, Dec. 8, 2021, from 8:00-10:00AM**. Please make travel arrangements accordingly. Make-up/early tests will not be available to accommodate individual travel plans.

Grading Policy

	Points	Weight
Attendance	25 points	$\frac{25}{575} * 100$
Homework	100 points	$\frac{100}{575} * 100$
Three major exams	300 points	$\frac{300}{575} * 100$
Final (comprehensive) exam	150 points	$\frac{150}{575} * 100$
Total	575points	100%
The grading scale is rigid.		
	90.00 – 100	A
	80.00 – 89.99	B
	70.00 – 79.99	C
	60.00 – 69.99	D
	Below 60.00	F

Tentative Schedule		
<u>Week</u>	<u>Dates</u>	Approximate schedule: Sections covered and topics
1	8/11-8/13	1.1: Functions and Their Representations 1.2: A Catalog of Essential Functions 1.3: The Limit of a Function
2	8/16-8/20	1.4: Calculating Limits 1.5: Continuity
3	8/23-8/27	1.6: Limits Involving Infinity 2.1: Derivatives and Rates of Change
4	8/30-9/3	2.2: The Derivative as a Function 2.3: Basic Differentiation Formulas Review Exam 1
5	9/6-9/10	9/6: Labor Day. No class Exam 1 on Tuesday, 09/07/21: Exam will cover Sections 1.1-2.3 2.4: The Product and Quotient Rules
6	9/13-9/17	2.5: The Chain Rule 2.6: Implicit Differentiation
7	9/20-9/24	2.7: Related Rates 2.8: Linear Approximations and Differentials
8	9/27-10/1	3.1: Maximum and Minimum Values 3.2: The Mean Value Theorem
9	10/4-10/8	3.3: Derivatives and the Shapes of Graphs 3.4: Curve Sketching 10/7-10/8: Fall Pause, no class
10	10/11-10/15	Exam 2 on Monday, 10/11/21: Exam will cover Sections 2.3-3.4 3.5: Optimization Problems 3.6: Newton's Method
11	10/18-10/22	3.7: Antiderivatives 4.1: Areas and Distances
12	10/25-10/29	4.2: The Definite Integral 4.3: Evaluating Definite Integrals
13	11/1-11/5	4.4: The Fundamental Theorem of Calculus 4.5: The Substitution Rule
14	11/8-11/12	Exam 3 on Monday, 11/08/21: Exam will cover Sections 3.5-4.5 5.1: Inverse Functions 5.2: The Natural Logarithmic Function 5.3: The Natural Exponential Function
15	11/15-11/19	5.4: General Logarithmic and Exponential Functions 5.5: Exponential Growth and Decay 5.6: Inverse Trigonometric Functions
16	11/22-11/26	11/24-11/26: Thanksgiving
17	11/29-12/3	5.7: Hyperbolic Functions 5.8: Indeterminate Forms and l'Hospital's Rule 12/2: Reading day, no class

<u>Week</u>	<u>Dates</u>	Homework Problems
1	8/11-8/13	1.1: 4, 11, 22, 24, 26, 28, 48, 66 1.2: 2, 7, 11, 19, 20, 39, 54, 55 1.3: 2, 4, 8, 11, 15, 23, 34
2	8/16-8/20	1.4: 2, 4, 10, 12, 18, 24, 26, 33, 44, 50 1.5: 4, 6, 13, 20, 34, 38 (include sketch), 40,44
3	8/23-8/27	1.6: 2, 4, 9, 14, 18, 20, 22, 24, 25, 26, 32, 39 2.1: 4, 9, 12, 14, 15, 25, 29
4	8/30-9/3	2.2: 2, 4, 21, 23, 25, 34, 39, 41, 2.3: 6, 8, 14, 19, 26, 29, 32, 36b, 45, 50 Review Exam 1
5	9/6-9/10	9/6: Labor Day. No class Exam 1 on Tuesday, 09/07/21: Exam will cover Sections 1.1-2.3 2.4: 3, 5, 11, 16, 27, 33, 36, 42, 44,
6	9/13-9/17	2.5: 2, 4, 9, 18, 21, 27, 48, 57 2.6: 1, 4, 7, 12, 20, 26, 46
7	9/20-9/24	2.7: 2, 8, 11, 12, 15 2.8: 2, 6, 9, 12, 20, 22, 30
8	9/27-10/1	3.1: 4, 8, 13, 19, 24, 32, 37, 41, 48 3.2: 2, 6, 10, 14, 16, 24
9	10/4-10/8	3.3: 2, 7, 10, 12, 20, 22, 34, 46 3.4: 3, 9, 12, 12 10/7-10/8: Fall Pause, no class
10	10/11-10/15	Exam 2 on Monday, 10/11/21: Exam will cover Sections 2.3-3.4 3.5: 2, 6, 8, 10, 15 3.6: 6, 11, 14, 15
11	10/18-10/22	3.7: 3, 6, 10, 16, 18, 25, 32, 42 4.1: 2, 8, 10, 16
12	10/25-10/29	4.2: 2, 6, 8, 12, 15, 20, 29, 34, 40 4.3: 2, 5, 8, 10, 14, 18, 23, 28, 34, 42, 44, 62
13	11/1-11/5	4.4: 2, 6, 12, 16, 19, 26 4.5: 2, 6, 16, 27, 32, 38, 45
14	11/8-11/12	Exam 3 on Monday, 11/08/21: Exam will cover Sections 3.5-4.5 5.1: 5, 9, 16, 18, 22, 29, 32, 34, 38 5.2: 7, 12, 14, 16, 22, 34, 38, 51, 52 5.3: 5, 10, 13, 17, 32, 38, 45, 63
15	11/15-11/19	5.4: 9, 12, 16, 18, 23, 32, 42, 48 5.5: 4, 5, 9, 13 5.6: 5, 8, 14, 19, 32, 39
16	11/22-11/26	11/24-11/26: Thanksgiving
17	11/29-12/3	5.7: 10, 14, 27, 37, 53 5.8: 2, 4, 12, 14, 24, 32, 39 12/2: Reading day, no class