

Math 241 Mathematics for Engineering and the Sciences II

Section 001

Fall Quarter

Classroom: GTM 229 (9:30 – 10:45 MWF)

INSTRUCTOR: Dr. Brian Barron

OFFICE NUMBER: BH 239

OFFICE HOURS: MWF (10:45 – 12:30) TR (10:00 – 12:00 and 1:00 – 2:00)

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PREREQUISITE COURSE: MATH 240, Mathematics I

COURSE GOALS: For detailed objectives please refer to the instructional objectives in the text.

TEXTBOOKS: Calculus: Early Transcendentals, by James Stewart, 6th. Ed, and
Single Variable Calculus with Precalculus (second edition), by B. Schröder, Fountainhead Press

COURSE OUTLINE: Stewart: 3.1 – 3.6, 3.9 – 3.11, 4.1-4.7, 4.9, 5.1 – 4.5
Schröder, 4.1-4.2, 8.1-8.4, 11.1

ATTENDANCE REGULATIONS: Class attendance is regarded as an obligation as well as a privilege. All students are expected to attend regularly and punctually; failure to do so may jeopardize a student's scholastic standing and may lead to suspension from the university.

STUDENTS NEEDING SPECIAL ACCOMODATIONS: Students needing testing or classroom accommodations based on a documented disability are encouraged to discuss the need with me as soon as possible.

HOMEWORK: Homework will be completed using WeBWorK (<http://webwork.latech.edu/>). Additional suggested study problems from the text will be posted on Blackboard. WeBWorK will contribute 50to the overall grade. WeBWorK assignments will be graded based upon what is completed online – paper submissions will not be accepted.

EXAMINATIONS: There will be 4 exams, in addition to a comprehensive final exam at the end of the quarter. If you miss an exam, you must notify the instructor prior to the exam either in person or by phone. When you return, it is your responsibility to arrange for a makeup exam.

ALEKS. The ALEKS tutoring package will be available for this course. Students should use the package they purchased for MATH 240 or purchase ALEKS at the book store. The course code is **MJVTk-V4HQV**

ACADEMIC MISCONDUCT. In accordance with p.30 of the Louisiana Tech University bulletin, any form of plagiarism is considered academic misconduct and will carry a minimum penalty of an "F" for the assignment in question. The instructor reserves the right to enforce a more stringent penalty. For details on the honor code, please refer to <http://www.latech.edu/documents/honor-code.pdf>

GRADE DETERMINATION POLICY: The standard ten-point grading scale will be used for this class: A = 90% - 100%; B = 80% - 89%; C = 70% - 79%; D = 60% - 69%; F = 0% - 59%. The course grade will be calculated as follows:

Exams (4×100 each)	400
Webwork	50
<u>Final</u>	<u>150</u>
Total	600

GRADE APPEAL: In the event of a question regarding an exam grade or final grade, it will be the responsibility of the student to retain and present graded materials which have been returned for student possession during the quarter.

Emergency Notification System: All Louisiana Tech students are strongly encouraged to enroll and update their contact information in the Emergency Notification System. It takes just a few seconds to ensure you're able to receive important text and voice alerts in the event of a campus emergency. For more information on the Emergency Notification System, please visit <http://www.latech.edu/administration/ens.html>

MATH 241 OUTLINE

Calculus: Early Transcendentals, by James Stewart, 6th. Ed, and
Single Variable Calculus with Precalculus, by B. Schröder, Fountainhead Press

MO5:= Multiples of 5

Day	Book-page	Section	Suggested Practice Problems
1	Stew180	3.1 Derivatives of Poly & Exp. Fcts	5-30MO5,33,37,39,43,45,47,51,56,59
	Stew187	3.2 The Prod. & Quotient Rules	5-25Mo5,27,31,35,37,47,54
2	Schr 272	8.1 Basic Trig. Identities & Equations	1a,b,c,d;2a,b,c,d,e,g,i,j;4a,c,f,g,h,j,k, m,n,p,u
3	Schr 279	8.2 Additive Identities	1;2a,d;3b,c;4a,b,c;5c;6a,c;7a,c;8a; 9a,d;10a;14
4	Schr 284	8.3 Derived Identities	1a,c; 2a; 3a; 4b,c,e; 5a; 6b; 9c; 10b; 11a; 12a
6	Stew 195	3.3 Derivative of Trig. Functions	3-15odd,19,21,25,37,39-47odd
7	Stew 203	3.4 The Chain Rule	1,3,5,10-35MO5,37,51,57,59
8	Stew 213	3.5 Implicit Differentiation	1,3,5,10,13,15,17,19,21,23,25,27,47,49
9	EXAM 1	SECTIONS: STEW 3.1,3.2,3.3,3.4 SCHR 8.1, 8.2,8.3,8.4	
10	Stew 220	3.6 Derivatives of Log. Functions	3,5,7,10,13,20,21,23,25,27,29,31,37,41,44
	Stew 259	3.11 Hyperbolic Functions (optional)	1-17odd,21,30,33,36,41,43
11 12	Stew 245	3.9 Related Rates	7,9,11,13,15,17,20,21,23,24,27,29,32,41
13	Stew 252 Stew 253	3.10 Linear Approximation/Differentials	1-11odd,17,23,25,32,35
14	Stew 277	4.1 Maximum/Minimum Values	3-13odd,15-65MO5
15	EXAM 2	SECTIONS: STEW 3.5,3.6,3.9,3.10,3.11	
16	Stew 285	4.2 The Mean Value Theorem	1,3,5,9,11,13,16,17,23,25,31,35
17	Stew 295	4.3 How Derivatives Affect Graphs	1,5,7,9,10,11,15,20,21,23,26,29,31,35, 45,67,68
18	Stew 304	4.4 Indeterminate Forms & L'Hospital's Rules	1-4,5,8,9,15,17,18,25,30,31,32,37,38,41, 45,51,57
19	Stew 314	4.5 Summary of Curve Sketching	5-50MO5
	Stew 320	4.6 Graphing with Calculus & Calculators	3,5,7,11,13,15,19,21,27,31
20	Stew 328	4.7 Optimization Problems	4,6,9,11,13,16,27,30,33,37,46,61, 66,68
21			
22	EXAM 3	SECTIONS: STEW 4.1-4.7	
23	Stew 345	4.9 Antiderivatives	5-45MO5,47,51,59,64,75,76
24	Schr 125	4.1 Proofs by Induction	
	Schr 129	4.2 Summation Notation	
25	Stew 364	5.1 Areas and Distances	1,3,13,15,17,21
26	Stew 376	5.2 The Definite Integral	1,5,9,17,21,29,33,39,41,48,49,51,53,55
27	Stew 387	5.3 The Fundamental Theorem of Calculus	3,7,13,21,23,27,29,31,35,41,51,55,65
28	Stew 397	5.4 Indefinite Integrals and the Net Change Theorem	1,5,9,13,19,23,29,31,37,43,47,55,57
29	EXAM 4 FINAL		