

Advanced Calculus I  
MATH 315, section B01  
Summer, 2022

Professor J. Lawrence  
Mathematical Sciences  
lawrence@gmu.edu

This course is online only, on Blackboard.

**Text:** *An Introduction to Analysis*, by William R. Wade, fourth edition, publ. Pearson, 2018. We will cover most of the material in chapters 1 through 7.

**Prerequisites:** MATH 213 or 215 (Calculus III) and MATH 290 or 300.

This is a course in analysis of functions of one real variable. Students will practice the art of utilizing theorems of the course in reasoning about the subject matter, and will be expected to understand and supply proofs of statements connected with it. Course topics include: the real number system; sequences; limits; topology of the reals; continuity, differentiability, and integrability of functions of one real variable; infinite series.

**Grades:** There will be almost daily quizzes and written work. Much of this will contribute to your *quiz/proof* grade, which will account for approximately 80% of your final numerical course grade. The final exam will contribute the remaining 20%. Class participation (in the form of activity on the Problem Discussion Board, on Blackboard) may result in some augmentation of your course grade. Up to twenty points from problems with incorrect or missing answers will be ignored.

A <sup>+</sup> : 97-100	B <sup>+</sup> : 87-89	C <sup>+</sup> : 75-79	F : below 60
A : 93-96	B : 83-86	C : 70-74	
A <sup>-</sup> : 90-92	B <sup>-</sup> : 80-82	D : 60-69	

The final exam is scheduled for Friday, July 29.

**Integrity** is expected. GMU's revered honor system is over 150 years old - much older than GMU itself. Here is relevant policy concerning academic integrity in this class. On tests and quizzes, your work is expected to be exactly that: your work, done without assistance. During periods designated for quizzes and tests, the internet is not to be consulted for help, except for the class material that resides on Blackboard. During those times, there should be no communication with any human being other than Professor Lawrence about the material. However, on homework not contributing directly to your grade, outside assistance or assistance from other

class members is condoned. (That said, homework is most helpful to you if you try extremely hard to work all the problems without any assistance, not even the assistance of the answers in the back of the book. Attempt all the problems in this way, and only then look in the back!)

Contact the **Office of Disability Services** if you are a student with a disability and need academic accommodations. For more information visit <http://ods.gmu.edu> .

The **Math Tutoring Center** is currently operating online. Additionally, the math department maintains a list of **tutors** for hire. For information on these and other resources, visit the Department of Mathematical Sciences web page and click on *Tutoring*, under *Resources*.