COURSE DESCRIPTION
ADVANCED CALCULUS II
MA 441/541-ET
SPRING 2022

DEPARTMENT OF MATHEMATICS
UNIVERSITY OF ALABAMA AT BIRMINGHAM

Course Instructor: Professor Nikita Selinger
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Office Hours: By appointment

Meeting times: MTWT 15:35 AM – 16:25 PM
Meeting location: UH 4002
Prerequisite: Grade of C or better in Advanced Calculus I or equivalent
Credits: 4 semester hours
Textbook: See notes on Canvas

Course Description:

Advanced Calculus is the rigorous mathematical study of calculus topics emphasizing proofs of all results. As an example, the intermediate value theorem is a result usually presented in a first course on calculus which is easy to see in a picture on the board, but surprisingly difficult to prove. We focus on complete, rigorous proofs of results such as these.

Important dates:

First day of class: January 10, 2022,
Last day to drop/add: January 18, 2022.
Last day of class: April 22, 2022.

Course policies:

- Please make sure that you are able to receive e-mail through your Blazer-ID account. Official course announcements may be sent to that address.
- If your are contacted by the Early Alert Program, you should consider taking advantage of the services it offers. Various services to assist you are also listed in the *Student Resources* section of the *Blazernet* web site.
- If you wish to request a disability accommodation please contact DSS at 934-4205 or at *dss@uab.edu*.

Methods of teaching and learning:

- Class meetings of 50 minutes consisting of student presentations.
- Students are expected to undertake at least 10 hours of private study per week.

Course Objectives:

Upon successful completion of this course, you will be able to:

- Prove a mathematical theorem.
- Present your proof and answer any questions of students in class.
- Pose questions or challenges to other students' proofs to determine whether or not those proofs are rigorously correct.

Assessment procedures:

The grade will be based on the number of points obtained by in class presentations. For details please see the lecture notes on Canvas.

Tips:

- Technical support is available at https://www.uab.edu/elearning/help.
- By working steadily and regularly, you will increase your chances to succeed in this course.
- Remember, being a full-time student is a full-time job.