

**MA 4633/6633: Advanced Calculus I**  
**Course Syllabus**  
**Fall 2018**

**Section 01**  
**MWF: 10:00 - 10:50 am**  
**Allen 19**

**Instructor:** Dr. Matt McBride  
**Office:** Allen 419  
**Office Phone:** 325-7139  
**Office Hours:** MWF: 9:00 – 10:00 am or by appointment  
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**Textbook:** Conway, J.: *A First Course in Analysis*

**Prerequisites:** MA 2743 and MA 3053

**Objective:** Analysis is a broad area of mathematics. This is the first part in a two semester sequence. In this class we will focus on the theory of calculus on  $\mathbb{R}$  and rigorously prove all of the items taught in a calculus sequence. In the second semester we will focus on the theory of calculus in general metric spaces.

**Withdrawl Date:** The last day to drop the course with a W is October 15<sup>th</sup>.

**Student Honor Code:** Mississippi State has an approved Honor Code that applies to all students. The code is as follows: “As a Mississippi State University student, I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do.” Upon accepting admission to Mississippi State University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor Code. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the MSU community from the requirements or the processes of the Honor Code. For additional information, please visit: <http://honorcode.msstate.edu/policy>

**Students with disabilities:** Mississippi State University is committed to providing reasonable accommodation for all students with disabilities. If you require special accommodation in this course you are requested to speak with the instructor as early in the semester as possible. Students with disabilities must be registered with the Office of Student Support Services prior to receiving accommodations in this course. For further information please see <http://www.sss.msstate.edu>.

**Title IX:** Mississippi State University is committed to complying with Title IX, a federal law that prohibits discrimination, including violence and harassment, based on sex. This means that MSU's educational programs and activities must be free from sex discrimination, sexual harassment, and other forms of sexual misconduct. If you or someone you know has experienced sex discrimination, sexual violence and/or harassment by any member of the university community, you are encouraged to report the conduct to MSU's Director of Title IX/EEO Programs at 325-8124 or by email to [titleix@msstate.edu](mailto:titleix@msstate.edu). Additional resources are available at <http://www.msstate.edu/web/security> or at <http://students.msstate.edu/sexualmisconduct/>.

**Homework:** As with any math course, homework is a vital component. One must practice newly learned facts, theorems, etc. through the assigned homework. Homework will be assigned more or less daily, however it will be collected only once a week except during the midterm exam week. See the schedule for details.

**Exams:** There will be two closed book, closed notes, and closed homework in-class exams. Students will have the whole class period to take the exams. See the schedule for the exact sections covered.

**Final Exam:** The final exam is **not** a comprehensive exam and will be held on **Friday, December 7<sup>th</sup>** in the usual class location at **8:00 - 11:00 am**. This date can **not** be modified, so make sure one's calendar is free. It will cover the remaining sections not covered by the midterm exams.

**Make-up Policy:** Make-up exams will be given **only** for reasons deemed acceptable by the instructor, and **only** with written documentation. Make-up exams must be taken within one week of the original date, and no make-ups may be taken after the final exam. Make-up exams are never easier than the original.

**Grading Distribution:**

Homework.....	25%
Exams.....	50%
Final Exam.....	25%
Total.....	100%

**Grading Scale:**

<b>A:</b> .....	100% - 90%
<b>B:</b> .....	89% - 80%
<b>C:</b> .....	79% - 70%
<b>D:</b> .....	69% - 60%
<b>F:</b> .....	59% and below

**Fall 2018 Tentative Schedule**

Note: this may be modified and is left to the discretion of the instructor.

<b>Date</b>	<b>Section Covered/ HW Due</b>	<b>Homework Assigned</b>
Wed, Aug. 22	1.1,1.2	<b>1.1:</b> 4,6,7
Fri, Aug. 24	1.2	none
Mon, Aug. 27	1.2	none
Wed, Aug. 29	1.2,1.3	<b>1.2:</b> 2,6,8,14,15
Fri, Aug. 31	1.3 ( <b>1.1 due</b> )	none
Wed, Sept. 5	1.3	<b>1.3:</b> 1,2,4,5,6,11,13,17
Fri, Sept. 7	1.4 ( <b>1.2 due</b> )	none
Mon, Sept. 10	1.4,1.5,1.6	<b>1.4:</b> 2,3,5,7,8,9 <b>1.5:</b> 1
Wed, Sept. 12	1.6	none
Fri, Sept. 14	1.6 ( <b>1.3 due</b> )	<b>1.6:</b> 3,4,6,9,10,11
Mon, Sept. 17	1.7	none
Wed, Sept. 19	1.7	none
Fri, Sept. 21	1.7,1.8 ( <b>1.4,1.5,1.6 due</b> )	<b>1.7:</b> 1,3,4,7,11,17,18,19 <b>1.8:</b> 1,3
Mon, Sept. 24	2.1	none
Wed, Sept. 26	Review for Exam 1	none
Fri, Sept. 28	<b>Exam 1</b>	<b>Covering: 1.1-1.8</b>
Mon, Oct. 1	2.1,2.2	<b>2.1:</b> 1,4,7,8
Wed, Oct. 3	2.2	<b>2.2:</b> 2,3,4,8,12
Fri, Oct. 5	2.3 ( <b>1.7,1.8 due</b> )	none
Mon, Oct. 8	2.3,2.4	<b>2.3:</b> 3,5,8,9
Wed, Oct. 10	2.4,2.5	<b>2.4:</b> 1,2,4,5

<b>Date</b>	<b>Section Covered/ HW Due</b>	<b>Homework Assigned</b>
Mon, Oct. 15	2.5,3.1	<b>2.5:</b> 2,3
Wed, Oct. 17	3.1	none
Fri, Oct. 19	3.1 ( <b>2.1,2.2,2.3,2.4 due</b> )	<b>3.1:</b> 1,4,5,7,9,10
Mon, Oct. 22	3.2,3.3	<b>3.2:</b> 4,6,7
Wed, Oct. 24	3.3	<b>3.3:</b> 3,11,12,13
Fri, Oct. 26	3.4 ( <b>2.5,3.1 due</b> )	<b>3.4:</b> 2,6,7,10,11
Mon, Oct. 29	3.5	none
Wed, Oct. 31	3.5	<b>3.5:</b> 1
Fri, Nov. 2	4.1 ( <b>3.2,3.3,3.4 due</b> )	none
Mon, Nov. 5	4.1,4.2	<b>4.1:</b> 1,2,5,6,7
Wed, Nov. 7	Review for Exam 2	none
Fri, Nov. 9	<b>Exam 2</b>	<b>Covering: 2.1-2.5,3.1-3.5</b>
Mon, Nov. 12	4.2	none
Wed, Nov. 14	4.2	<b>4.2:</b> 1,8
Fri, Nov. 16	5.1 ( <b>3.5, 4.1 due</b> )	none
Mon, Nov. 19	5.1	none
Mon, Nov. 26	5.1	<b>See Handout</b>
Wed, Nov. 28	5.2	none
Fri, Nov. 30	5.2 ( <b>4.2 due</b> )	none
Mon, Dec. 3	5.2	<b>See Handout</b>
Wed, Dec. 5	Review for Final Exam	none
Fri, Dec. 7	<b>Final Exam (5.1,5.2 due)</b> <b>8:00-11:00am in Allen 19</b>	<b>Covering: 4.1,4.2,5.1,5.2</b>