MA 3053: Foundations of Mathematics
Course Syllabus
Spring 2017

Section 01
MWF: 11:00 - 11:50 am
Allen 24

Instructor: Dr. Matt McBride
Office: Allen 419
Office Phone: 325-7139
Offic Hours: MWF: $9:00 - 10:00$ am or by appointment
Email Address: mmcbride@math.msstate.edu
Website: msm646.math.msstate.edu

Textbook: Dumas, Bob and McCarthy, John: *Transition to Higher Mathematics: Structure and Proof*, 2nd Edition

Prerequisites: MA 1723

Objective: This course is an introduction to formal proofs in mathematics as well as the logical structure of mathematics. We will study the nature of a mathematical proof and see a variety of proofs in the context of algebra and calculus.

Withdrawl Date: The last day to drop the course with a W is February 28th.

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 emai to 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 exam weeks. See the schedule for the 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 **Thursday, May 4$^{\text{th}}$** in the usual class location at **12:00 - 3:00 pm**. This date can **not** be modified, so make sure one's calendar is free.

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.

Calculator Policy: You may use any type of calculator you wish, however given the nature of the problems you won't need a calculator.

Grading Distribution:

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

Grading Scale:

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

Spring 2017 Tentative Schedule

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

Date	Sections Covered/ HW Due	Homework Assigned
Mon, Jan. 9	1.1	none
Wed, Jan. 11	1.2	none
Fri, Jan. 13	1.2	**1.8:** 1-4,7 (**P1**)
Wed, Jan. 18	1.3	none
Fri, Jan. 20	1.3,1.4 (**P1 due**)	**1.8:** 11,17,19-23 (**P2**)
Mon, Jan. 23	1.5	**1.8:** 28,29 (**P3**)
Wed, Jan. 25	1.6	**1.8:** 33,35 (**P4**)
Fri, Jan. 27	2.1 (**P2 due**)	**2.6:** 1 (**P5**)
Mon, Jan. 30	2.2	**2.6:** 2 (**P6**)
Wed, Feb. 1	2.3	**2.6:** 5,6,9,11 (**P7**)
Fri, Feb. 3	2.4 (**P3-P5 due**)	none
Mon, Feb. 6	2.5	**2.6:** 15-18 (**P8**)
Wed, Feb. 8	3.1	none
Fri, Feb. 10	3.2 (**P6,P7 due**)	none
Mon, Feb. 13	3.2	**3.6:** 2-7 (**P9**)
Wed, Feb. 15	Review for Exam 1	none
Fri, Feb. 17	**Exam 1**	**Covering: 1.1-1.6,2.1-2.5,3.1**
Mon, Feb. 20	3.3	**3.6:** 9-11 (**P10**)
Wed, Feb. 22	3.4	**3.6:** 13 (**P11**)
Fri, Feb. 24	3.5 (**P8,P9 due**)	none
Mon, Feb. 27	3.5	**3.6:** 15,23-27 (**P12**)

Date	Sections Covered/ HW Due	Homework Assigned
Wed, Mar. 1	4.1	**4.5:** none
Fri, Mar. 3	4.2 (**P10, P11 due**)	**4.5:** 1,2,7-12 (**P13**)
Mon, Mar. 6	4.3	**4.5:** 18 (**P14**)
Wed, Mar. 8	4.4	**4.5:** 28 (**P15**)
Fri, Mar. 10	5.1 (**P12,P13 due**)	none
Mon, Mar. 20	5.1	**5.4:** 2,3,6,10,14 (**P16**)
Wed, Mar. 22	Review for Exam 2	none
Fri, Mar. 24	**Exam 2**	**Covering: 3.2-3.5,4.1-4.4**
Mon, Mar. 27	5.2	**5.4:** 16,20-22 (**P17**)
Wed, Mar. 29	6.1	**6.6:** 1,2 (**P18**)
Fri, Mar. 31	6.2 (**P14,P15 due**)	none
Mon, Apr. 3	6.2	**6.6:** 3,4 (**P19**)
Wed, Apr. 5	6.3	none
Fri, Apr. 7	6.3 (**P16-P18 due**)	**6.6:** 5,7,8 (**P20**)
Mon, Apr. 10	6.4	none
Wed, Apr. 12	6.4 (**P19 due**)	**6.6:** 11,12,14 (**P21**)
Mon, Apr. 17	7.1	none
Wed, Apr. 19	7.1	none
Fri, Apr. 21	7.2 (**P20,21 due**)	none
Mon, Apr. 24	7.3	**7.6:** 2,3,5,6,7,12 (**P22**)
Wed, Apr. 26	Review for Final Exam	none
Thu, May 4	**Final Exam** (**P22 due**)	**Covering: 5.1,5.2,6.1-6.4,7.1-7.3** **12:00-3:00pm in Allen 24**