

MA 3053: Foundations of Mathematics
Course Syllabus
Summer I 2017

Section 01
M-F: 10:00 - 11:50 am
Allen 15

Instructor: Dr. Matt McBride
Office: Allen 419
Office Phone: 325-7139
Office Hours: M-F: 12:00 – 1:00 pm or by appointment
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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 June 20th.

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. 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 daily, however it will not be collected. See the quizzes section below for more details on this. Even though the homework will not be collected it is expected to be completed, as this is necessary to excel in this course.

Quizzes: There will be in-class quizzes through out the semester, see the schedule for the exact dates. As mentioned above, homework will be assigned daily, but not collected. Instead the quizzes will come directly from the homework. Students who have completed the homework will be able to use it on the quiz, however no in-class notes or books will be allowed. This is an incentive to do the assigned homework, plus in order to master mathematics one needs to practice it, hence homework. This can never be stressed enough.

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, June 29th** in the usual class location at the usual time. 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:

Quizzes.....	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

Summer I 2017 Tentative Schedule

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

Date	Sections Covered/Quiz Dates	Homework Assigned
Thu, June 1	1.1,1.2	none
Fri, June 2	1.2,1.3	1.8: 1-4
Mon, June 5	1.4,1.5	1.8: 11,17,20-23
Tue, June 6	1.6,2.1	1.8: 33,35
Wed, June 7	2.2,2.3 (Q1: over 1.8)	2.6: 2
Thu, June 8	2.3, Review for Exam 1	2.6: 5,6,9
Fri, June 9	Exam 1	Covering: 1.1-1.6, 2.1
Mon, June 12	2.4,2.5	2.6: 15,18
Tue, June 13	3.1,3.2 (Q2: over 1st part of 2.6)	none
Wed, June 14	3.2,3.3	3.6: 2-7
Thu, June 15	3.4,3.5 (Q3: over 2nd part of 2.6)	3.6: 23,24,26,27
Fri, June 16	4.1,4.2	4.5: 2,7-10
Mon, June 19	4.3,4.4 (Q4: over 3.6)	4.5: 20
Tue, June 20	5.1,5.2, Review for Exam 2	5.4: 2,3,6,10,14,16,21
Wed, June 21	Exam 2	Covering: 2.2-2.5, 3.1-3.5,4.1-4.4
Thu, June 22	6.1,6.2	6.6: 1,2
Fri, June 23	6.2,6.3	6.6: 3,5,8
Mon, June 26	6.4,7.1 (Q5: over 4.5 and 5.4)	6.6: 11,12,14
Tue, June 27	7.2,7.3	7.6: 2,3,5,7
Wed, June 28	Review for Final Exam	none
Thu, June 29	Final Exam	Covering: 5.1,5.2,6.1-6.4,7.1-7.3