MTH 299 Section 002, Fall 2014 Course Syllabus

Instructor:	Dr. Tianran Chen (T.R.)
Lectures:	MWF 11:30 – 12:20 in A334 Wells Hall
Instructor's Office:	C-201 WH
Instructor's Office Hours:	MWF 10:30 – 11:30 and by appointment
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Recitation:	Thu 14:50 – 16:10 in A324 Wells Hall
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MTH 299 Transitions is an introduction to writing mathematical proofs. Topics include sets, logic, proof techniques, mathematical induction, divisibility and limits.

Summary

1. You are expected to own the textbook and attend class meetings.

2. There are weekly homework assignments due every Monday.

3. Each homework assignment is graded twice: once for the first draft, once for the revision.

4. There are weekly quizzes.

5. We have two (mid-term) exams and one final exam.

6. Read the textbook.

7. Seriously, read the textbook. After that, read it again.

8. This is a writing course. The usual rules of writing apply: You are expected to write your solutions in complete sentences (grammatically correct ones) with punctuations.

Textbook

Chartrand, Polimeni, and Zhang. *Mathematical Proofs: A Transition to Advanced Mathematics*, Third Edition (2012).

Attendance

You are expected to attend all class meetings and are responsible for all of the material covered in class and in the homework. Any changes in this syllabus or in the scheduling of exams, quizzes, etc. will be announced during class meetings (usually at the beginning of class so please don't be tardy).

- Excused absences will be given only with documentation and only for valid medical reasons, university business, or appearances in court.

- Any unexcused exams will be counted as a 0, including the final exam.

- Any student with a valid reason to be excused from an exam must contact the instructor prior to the exam and present documentation in the next class session attended. If a student misses an exam due to a medical emergency, then s/he will take the exam the next day s/he is back at school at a time chosen by your instructor; documentation of the emergency must be provided.

Important dates

Last day to drop the class with tuition refund	Monday, September 22
Midterm Exam I	Thursday, October 2, during recitation
Last day to drop the class	Wednesday, October 15
Midterm Exam II	Thursday, November 13, during recitation
Final Exam	Wednesday, December 10, 3:00 - 5:00 p.m.

Grading criteria and scale

All of your work in the course will be graded according to three criteria: **Clarity**, **Completeness**, **Correctness**. Solutions which ineffectively communicate your ideas, which omit or incompletely address the questions posed, or which include inaccuracies or errors will be penalized.

Components		**Grading Scale** (x is your percent score)	
Homework	25%	4.0	$90 \leq x$
Quizzes	15%	3.5	$85 \leq x < 90$
Exam I	15%	3.0	$80 \leq x < 85$
Exam II	15%	2.5	$75 \leq x < 80$
Final exam	30%	2.0	$70 \leq x < 75$
		1.5	$65 \leq x < 70$
		1.0	$60 \leq x < 65$
		0.0	$x < 60$

Homework

A homework will be assigned each week (usually on Mondays), and it is due the following Monday at the beginning of the class meeting. Late homework is not accepted without an excused absence. Not every homework problem will be graded. Once the graded homework has been returned to you, you are expected to revise your solutions (by rewriting it). This revision is due the following Monday (together with the original graded work), and it will also be graded. In other words, **each homework assignment is graded twice**: once for the first draft and once for the revision.

Your submitted work must include a clear and complete statement of each problem that you attempt to solve. Often the most difficult step in solving a mathematical problem is correctly recognizing the nature of the problem and choosing methods which are likely to be applicable. **If you do not know how to solve a particular problem, try to write a partial solution or try to express which aspect of the problem you are struggling with.** The usual rules of writing applies: You are expected to write your solutions in completely sentences (grammatically correct ones) with punctuations.

Quizzes

A quiz will be given every Thursday except for the exam weeks. There are no make-up quizzes except in the case of a medical emergency; you must provide documentation.

Ungraded work

You will not be successful in this course if you only complete the graded assignments. You must, in addition, regularly test your understanding by solving exercises in the textbook and problems which we work on as a class during lecture and recitation. If you have not mastered the material, then you should not expect to achieve a high exam score. Moreover, if you are unable to solve at least half of the recommended textbook exercises without making multiple or serious errors, then you should not expect to receive a passing grade on exams.

Academic Honesty

Cheating in any form will not be tolerated. This includes, but is not limited to, plagiarism, failure to give proper citations, and copying another's work. If you have any question about adhering to this policy, please ask your instructor. If you work on an assignment with other students, you must give credit to your collaborators. MSU's policy on academic integrity can be found at the following URL: https://www.msu.edu/~ombud/academic-integrity/index.html.

Suggestions on how to study

One thing you must learn is "how to learn". While I am unable to teach you that, I do have a few suggestions that may work in the context of this course:

Attend class & arrive prepared. Regular attendance is required. Before attending the lecture, read ahead. At minimum, attempt to work through the first several examples in each current section, and write down any questions you have. Work through the textbook exercises for the current sections and keep a record of your progress.

Participate in class. Be attentive and stay alert. Please participate in in-class discussion, talk to your classmates, and work with your classmates. Ask questions! Don't be shy: we all are here to learn!

Complete the homework assignments. Start homework assignments early and discuss these with your classmates. Write your attempts to solve the homework on scratch paper. You must re-write— carefully and neatly— your solutions according to the requested format. When your homework is returned with a grade,

Attend recitation. You are required to attend the recitation. Prepare for recitation by making a list of specific problems or concepts with which you would like additional help. Please keep in mind that if time runs out before your question is answered that you can send questions via e-mail to either your instructor or your LA.

Utilize office hours. Please consider bringing your questions to office hours. Office hours are times set aside specifically as an opportunity for you to get additional help. If your schedule conflicts with the scheduled office hours, please make an appointment by sending a request by e-mail.

Send questions via e-mail. When e-mailing your instructor, be sure to state your question clearly. If you are asking about a specific exercise or example in the text, be sure to restate the problem in its entirety.

Try more problems The best way to learn mathematics is to write down solutions to specific mathematical problems. If you are able to solve most of the assigned problems, then I am confident that you will do well in the course. But don't limit yourself to the assigned problems; the textbook offers a variety of interesting problems. Challenge yourself! If you want more practice or want more challenging problems, just ask me.