

# MATH 311 – INTRODUCTION TO HIGHER MATH, SPRING SEMESTER 2015

## 1. GENERAL INFORMATION

**Instructor:** Dr. Joseph Hundley

**Office:** Mathematics 203

**Office Phone:** 716-645-8771

**Office Hours:** T 12:30-1:30 and 3:30-5:30, W 3-4.

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**Textbook:** Outline & Problem Sets, notes developed at the UB Math Department. (Available on UBLearns)

**Supplementary Textbook:** G. Chartrand, A. Polimeni, P. Zhang, *Mathematical Proofs: A Transition to Advanced Mathematics*, 3rd edition.

**Calculators and other electronic devices:** No calculator is required for this course. Use of calculators and other electronic devices on assessments is not permitted. It is hard for me to see how a calculator would be of much use on any of the material for this course anyway.

## 2. COURSE DESCRIPTION

From the sample syllabus: “This is a core course in almost all math major concentrations, and usually the first course in higher mathematics that math majors take. Its primary purpose is to teach students how to read, understand, and write rigorous mathematical proofs. It also introduces basic notions in logic and set theory.”

Detailed information regarding **Learning Outcomes** and Learning Objectives of the undergraduate program can also be found on the department sample syllabus, available at

[http://copper.math.buffalo.edu/ugs/syllabi/syllabus\\_mth309.pdf](http://copper.math.buffalo.edu/ugs/syllabi/syllabus_mth309.pdf).

There is also a schedule of what will be covered when, which I intend to follow as closely as possible. However, I plan on using a more modular assessment scheme with one assessment per learning outcome, and no conventional exams.

### 2.1. Prerequisites. MTH 241.

## 3. FLIPPED CLASS STRUCTURE

This class is “flipped,” which means: instead of watching a lecture in class time and doing problems outside of class time, you will read or watch material posted on UBLearns to prepare for each class and then class time will be spent doing problems, asking questions, and receiving feedback.

## 4. GRADING

The department sample syllabus provides a list of learning outcomes: everything that you should be able to do when you finish this class which you may or may not be able to do right now. The list is pretty condensed and requires some unpacking. I will break up the material for each week into small units and post these to UBLearns. Each unit will list the learning outcomes associated with that unit. Some outcomes are associated with more than one unit. (For example, on the first

line we have the outcome “combine statements.” There are several ways to combine statements, learned in several different units.)

For each outcome, there will be an assessment. Assessments will normally be given in class, but can be done in recitation and office hours upon request. A student will have one week after the day that an outcome is covered to do the assessment for that outcome. After that, it will be left for the “Midterm” or “Final.”

**4.1. Midterm Exams.** On the Thursday of week 5 and the thursday of week 10, no new material will be covered. On these days, we’ll have the usual assessments from the previous week, and additional time to catch up on any “backlog” assessments not done in the week that they were presented.

**4.2. Final Exam.** As of Jan 28, 2016, no Final Exam is scheduled for our course. I’ve submitted a request to have one scheduled. The time will be available for students who have assessments which they have not completed yet to complete those. Students who have already completed all assessments need not attend.

**4.3. Attendance.** You may find that you are able to understand everything perfectly by reading what I post to UBLearns. In that case, you are welcome to come for long enough to just do the assessment and leave. However, if you try this strategy and are not doing well on the assessments, it means you need to put in the time in class. The assessments will give you constant feedback on how you are doing. Listen to it.

**4.4. Recitation.** Recitation for this class will meet Tuesdays from 4-4:50. It will be additional time to ask questions or work on problems.

**4.5. Grade Assignment.** Your course average will be the percentage of all Learning Outcomes for which you have satisfactorily completed the corresponding assessment by the end of the semester. Extra credit on individual assessments will be used sparingly. Most assessments will be either completed (100%) or not completed (0%, with the understanding that they still can be completed), until the end of the semester. The assessment attached to a wider ranging or more challenging Learning Outcome may count as two or more regular assessments. This will be indicated on a case-by-case basis. Letter grades will be computed from course averages as follows.

88-90	B+	92-100	A	90-92	A-
78-80	C+	82-88	B	80-82	B-
68-70	D+	72-78	C	70-72	C-
		60-68	D		
		0-60	F		

In the case of a course average which falls right on one of the boundary values, (92, 90, 88, etc.) the higher grade will be given.

## 5. OTHER

**5.1. Inclusion.** My goal is to foster a classroom environment that is inclusive, equitable, and inspiring. If you have feedback (preferably constructive) on how I am doing, or ideas that might help me accomplish that goal more effectively, please feel free to share them with me.

**5.2. Disabilities.** If you require classroom or testing accommodations due to a disability, please contact Accessibility Resources, located at 25 Capen Hall. AR can be reached by phone at (716) 645-2608 or by email at [stu-accessibility@buffalo.edu](mailto:stu-accessibility@buffalo.edu). Please inform me as soon as possible about your needs so that we can coordinate your accommodations.

5.3. **Electronic Devices.** Electronic devices are permitted in regular lectures as long as they are **silent** and **not a distraction** to you or others. For example, if you want to take a quick picture of the board, go ahead, but if you can't do so without obstructing the view of the person behind you, that's a problem. Electronic devices are **strictly forbidden during exams**.

5.4. **Tardiness.** You should try to be on time. If you're late, you should try to enter and take your seat without disrupting the class. If people arriving late are regularly a disruption, I will adopt a more formal tardiness policy.

5.5. **Academic Honesty.** The student conduct rules at

<http://www.ub-judiciary.buffalo.edu/rulereg.shtml/>

will be enforced. Examination papers may be scanned, photographed or photocopied. Any cheating on exams will be given the maximum punishment possible. If you are having difficulties please talk to me about it rather than attempting to cheat!

5.6. **Dropping and Resigning.** The final day to drop a course (no record on your transcript) is February 2. The final day to resign from a course (R on your transcript) is April 17. If you are making up an incomplete from a previous instructor please see me to be sure you are following the proper procedures. For information see the Repeat Policy in the UB Undergraduate catalog at:

<http://undergrad-catalog.buffalo.edu/policies/grading/repeat.shtml>