MATH 156.01
INTRODUCTION TO MATHEMATICAL PROOFS
SUMMER 2016

1. Course information

Class time and room: MW 17:35–19:40, HW 611
Instructor: Miha Habic, miha.habic@hunter.cuny.edu
Office hours: MW 17:00–17:30, HE 924, or by prior arrangement
Course webpage: http://mihahabic.wordpress.com/teaching/math-156-summer-2016

Department office: HE 919/944
Department office phone: 212-772-5300

Prerequisites and related courses: You need to have passed or be currently taking Math 155 to take this course. Furthermore, this course is a prerequisite for several other courses, e.g. Math 260 and 300-and-higher level courses.

Text: Gary Chartrand, Albert D. Polimeni, Ping Zhang. *Mathematical Proofs: A Transition to Advanced Mathematics.* 3rd edition

Course goals: Students will be introduced to basic concepts of mathematical logic and learn to express colloquial statements in a precise, formal way. Following this, methods of valid logical reasoning and several of the common techniques of mathematical proof will be explored, such as direct and indirect proofs, contrapositives, proof by contradiction, proof by induction and ε-δ arguments. All concepts will be illustrated by proving statements in elementary number theory, set theory and calculus/real analysis. There will also be a focus on reading, understanding and writing mathematical proofs using the proper style and vocabulary.

Tentative syllabus: We will start by covering chapters 1–7 and 11 from the textbook. If time permits, further material will then be covered from chapters 8–12, depending on the interests of the students.

Attendance: While attendance will be taken for record-keeping purposes, it will not factor into your grade (assuming you do not stop coming to class completely). Nevertheless, you are strongly encouraged to attend all lectures, as the class is highly cumulative and fundamental to any advanced math courses you may wish to take.

2. Grading

Homework: There will be regular homework assignments posted on the course webpage. These assignments will be due in class a week after they are assigned. You can work on the problems together, but you *must* write up and submit your solutions individually.

Tests: There will be a single cumulative final on the last day of class, July 13. There will be no midterms and no make-up exams.

Grade scale: Homework fill carry 55% and the final 45% of the overall average. I will drop the lowest homework before computing the average. **If you miss the final, your course grade will be no higher than a D**.

Depending on the overall percent score, the letter grade will be determined as follows:

A+	94–100%	B+	78–84.9%	C+	55–64.9%
A	90–93.9%	B	71–77.9%	C	45–54.9%
A-	85–89.9%	B-	65–70.9%	D	30–44.9%
				F	0–29.9%

Alternative grades: To receive an Incomplete grade you must have at least a C average in the class, as well as a legitimate excuse for missing the final exam.

You may also opt to take this course for credit/no credit. Please review the college policy for this option.

The last day for withdrawing from the course with a WD grade is June 8. The last day for withdrawing from the course with a W grade is June 27.

A WU grade will be assigned if you do not attend any classes nor submit any homework after June 27.

3. Additional information

Academic integrity: Hunter College regards acts of academic dishonesty (e.g. plagiarism, cheating on examinations, obtaining unfair advantage, and flasification of records and official documents) as serious offences against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.

Disability: In compliance with the American Disability Act of 1990 (ADA) and with Section 505 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical and/or Learning) consult the Office of Accessibility located in Room E1124 to secure necessary academic accommodations. For further information and assistance please call 212-772-4857, TTY 212-650-3230.