

This course focuses on the development of mathematical thinking and its use in a variety of contexts to translate real-world problems into mathematical form and, through analysis, to obtain new information and reach conclusions about the original problems. Topics include symbolic logic, logical arguments, sets, counting principles, and topics in probability theory.

**Instructor** Nicholas Matteo, 537 Nightingale, [matteo.n@husky.neu.edu](mailto:matteo.n@husky.neu.edu)

**Office Hours** M 2:00 – 3:00 pm, T 3:30 – 4:30 pm (after class), F 12:30 – 1:30 pm (before class)

**Lectures** TF 1:35 – 3:15 pm, International Village 019

**Text and Online Homework Access Kit** *Finite Mathematics* by Lial, Greenwell and Ritchey, Third Custom Edition for Northeastern University, with *MyMathLab Student Access Kit*.

Our course ID for MyMathLab is matteo49146.

**Calculator** A scientific calculator which can compute permutations and combinations.

**Recitation Sections** Students who would like extra help with quizzes are encouraged to attend any of the four one-hour recitations (starting September 10) in **544 Nightingale**.

**Tuesdays 4:30; Wednesdays 12:00, 1:15, 4:30**

You do **not** need to register. Students with a course average lower than 80% may get up to 2 points by attending recitations: 1/2 point for a session, up to a maximum of 2 points. This is the *only* extra credit that can be earned in this course.

**Grading** This course CANNOT be taken pass/fail. Your grade is determined as follows.

Attendance and In-class Problems 5%		Online Homework 5%			
Quizzes 35%	Midterm 15%	Final Exam 40%			
93-100 A	90-92 A-	87-89 B+	83-86 B	80-82 B-	77-79 C+
73-76 C	70-72 C-	67-69 D+	63-66 D	60-62 D-	0-59 F

**Attendance** Students are expected to attend all classes and are responsible for all information given when they are absent. The use of electronics is strongly discouraged.

**Quizzes** The best 7 out of 9 quizzes will be counted. There is no makeup for missed quizzes, unless the absence is university sanctioned (e.g. jury duty, athletic absences). The student must notify the instructor of the absence in advance and make arrangements for a makeup.

**Midterm** There will be a one-hour in-class midterm.

**Final Exam** All students must take a cumulative, common final exam at the scheduled time during the final exam period (unless you have a legitimate schedule conflict). In particular, do not make travel plans that conflict with the final exam.

**Concerns** If you have a concern about the course that cannot be resolved with the instructor, you may contact the course coordinator, Lee-Peng Lee, [lp.lee@neu.edu](mailto:lp.lee@neu.edu).

**Disabilities** Students with disabilities may consult the Disabilities Resource Center (20 Dodge Hall, ext. 2675) and have their disabilities verified for appropriate accommodations.

**Math Tutorial Center** 540B Nightingale, hours: MTW 10am–8pm, R 10am–6pm, F 10am–1pm. You may make appointments online at [neumath.mywconline.com](http://neumath.mywconline.com) for free tutoring.

**Academic Honesty** Cheating will not be tolerated. Every incident will be reported, and will result in a score of zero for the test or a failing grade for the course. For more information, visit [northeastern.edu/osccr/academicintegrity](http://northeastern.edu/osccr/academicintegrity).

## Tentative Schedule

9/6 (F)	Logical statements; connectives; truth tables for “not”, “and”, “or” (6.1) Truth tables for compound statements; equivalent statements (6.2)
9/10 (T)	Conditional statements (6.3 and 6.4)
9/13 (F)	<b>Quiz 1</b> (6.1, 6.2); Basic laws of equivalent statements (6.3)
9/17 (T)	6.3 and 6.4
9/20 (F)	<b>Quiz 2</b> (6.3, 6.4); Logical arguments (6.5)
9/24 (T)	Logical arguments (6.5)
9/27 (F)	<b>Quiz 3</b> (6.5); Sets (7.1)
10/1 (T)	Applications of Venn Diagrams (7.2)
10/4 (F)	<b>Quiz 4</b> (7.1, 7.2); Basic probability (7.3)
10/8 (T)	Basic probability (7.4)
10/11 (F)	Review for Midterm
10/15 (T)	<b>MIDTERM (6.1-6.5 and 7.1-7.4)</b>
10/18 (F)	Conditional probability and independent events (7.5)
10/22 (T)	Bayes Theorem (7.6)
10/25 (F)	<b>Quiz 5</b> (7.5)
10/29 (T)	Counting: Multiplication principle and Permutations (8.1)
11/1 (F)	<b>Quiz 6</b> (7.5, 7.6); Combinations (8.2)
11/5 (T)	Counting: assorted problems (8.1, 8.2)
11/8 (F)	<b>Quiz 7</b> (8.1, 8.2); Application of counting in probability (8.3)
11/12 (T)	Binomial probability (8.4); Probability: Assorted problems (8.3, 8.4)
11/15 (F)	<b>Quiz 8</b> (8.3, 8.4); Probability distributions and expected values (8.5)
11/19 (T)	Expected values and decision theory (8.5)
11/22 (F)	Review for Quiz 9
11/26 (T)	<b>Quiz 9</b> (8.5); Review
<del>11/29 (F)</del>	No class (Thanksgiving)
12/3 (T)	Review

**Final Exam** 10:30 am – 12:30 pm, Tuesday 12/10. Location will be available on Banner.

### Drop Dates

9/24 (T)	Drop without W
11/19 (F)	Drop with W

**Online homework** is assigned regularly and should be completed in a timely manner.

You will register at [mymathlab.com](http://mymathlab.com) with the access code that came with your textbook and the course ID **matteo49146**. You may also purchase an access code separately on the site.

Common problems: The most common technical issue is allowing popups and cookies (including third-party cookies) in your browser. The most recommended browser is Google Chrome if your particular browser is having issues. The second most common issue is remembering your login and password.