

MATH 1215 - Mathematical Thinking - Spring 2013

Instructor: Federico Galetto, 541 Nightingale Hall, galetto.f@husky.neu.edu.

Classes: W, F: 11:45 am - 1:25 pm, 409 Robinson Hall.

Office hours: Th: 1 - 4 pm, or by appointment.

Text: Lial, Greenwell, Ritchey, *Finite Mathematics*, Third Custom Edition for Northeastern University, with MyMathLab Student Access Kit for access to online homework and course material.

Online homework: Go to pearsonmylab.com and register with the code that comes with your Student Access Kit. Our course ID is: galetto54554. **Online registration is a requirement.** Enable cookies and popups on your browser, otherwise the website will not work properly.

Calculator: A scientific calculator that can compute permutations and combinations is required. Other electronic devices with a calculator function (such as phones or tablets) are not allowed.

Recitations: The focus of the recitation sessions is to prepare for the weekly quizzes. Students will take a mock quiz, after which the recitation instructor will go over the solutions and will answer questions from students. You may attend any session, whether they are registered or not. Recitations run every Wednesday (starting the second week of class) at the following times: 12 - 1 (104 Kariotis Hall), 3 - 4 (435 Ryder Hall).

Free Tutoring: M, Tu, W: 10 - 8, Th: 10 - 6, F: 10 - 1, 540B Nightingale Hall. Sign up for appointments at neumath.mywconline.com.

Course policies:

1. **Academic Honesty:** Northeastern University is committed to the highest standard of intellectual integrity, with zero tolerance of cheating. All members of the community are expected to maintain complete honesty in all academic work, presenting only that which is their own work in tests and assignments.
2. **Attendance:** Students are expected to attend all classes, and are responsible for all information given when they are absent. The best way to learn the material is to attend every class, pay full attention and participate in class. The use of electronics is prohibited.
3. **Grade:** This course cannot be taken pass/fail. Your grade will be determined as follows:

Homework: 5% || **Quizzes: 40%** || **Midterm: 15%** || **Final: 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

- **Homework:** Online homework will be assigned regularly.
- **Quizzes:** The best 8 quizzes will be counted. **There is no makeup for missed quizzes, unless the absence is university sanctioned** (e.g.: jury duty, military duty, athletic absences). The student must notify the instructor of the absence and make arrangements for a makeup in advance.
- **Midterm and Final Exam:** There will be a one hour midterm and a two hour, cumulative, common final exam, during the final exam period. **No student will be granted a request for a makeup final exam unless it is due to a registrar created conflict, or due to a university sanctioned absence.**

4. **Extra credit:** Students may get up to 2 points by attending recitation sessions (1/2 pt for one session, up to a maximum of 2 pts). This is the only extra credit available.
5. **Concerns:** Students are encouraged to discuss any concerns with their instructors. If you need to talk to someone other than your instructor, you may contact the course coordinator, Dennis Ledis, d.ledis@neu.edu.
6. **Disabilities:** Students with disabilities, including “invisible” disabilities like chronic diseases or learning differences, are encouraged to discuss appropriate accommodations with their instructor. Your disability must be verified by the Disabilities Resource Center (20 Dodge Hall, 617-373-2675), which will also provide you with information and assistance.

Syllabus: 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 probability.

Logical statements, connectives, and truth tables (6.1 and 6.2)

Conditional statements (6.3 and 6.4)

Equivalent statements (6.3)

Logical arguments (6.5)

Sets, Venn diagrams (7.1 and 7.2)

Basic probability (7.3 and 7.4)

Conditional probability and independent events (7.5)

Bayes Theorem (7.6)

Counting: Multiplication principle and Permutations (8.1)

Counting: Combinations (8.2)

Application of counting in probability (8.3)

Binomial probability (8.4)

Expected values and decision theory (8.5 and class notes)

Important Dates:

1/28, last day to drop without a W grade

1/29, last day to file a final exam conflict form

4/2, last day to drop with a W grade

4/22, 3:30 - 5:30 final exam (location TBD)