Course Description
This course is an introduction to number theory. Topics include primality, divisibility, modular arithmetic, unique factorization, finite fields, number fields, quadratic reciprocity, and elliptic curves. Emphasis will be placed both on theoretical questions and on algorithms for computation.

Prerequisites
MATH 220 (Discrete Mathematics) and MATH 232 (Linear Algebra).

Textbooks
(required)

Grading
Grades will be given based on the following scale and your overall percentage in the course.

<table>
<thead>
<tr>
<th>Letter</th>
<th>A</th>
<th>A-</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>C-</th>
<th>D</th>
<th>F</th>
<th>W</th>
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</thead>
<tbody>
<tr>
<td>Point</td>
<td>4.00</td>
<td>3.67</td>
<td>3.33</td>
<td>3.00</td>
<td>2.67</td>
<td>2.33</td>
<td>2.00</td>
<td>1.67</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>%</td>
<td>[93,100]</td>
<td>[90,93)</td>
<td>[87,90)</td>
<td>[83,87)</td>
<td>[80,83)</td>
<td>[77,80)</td>
<td>[73,77)</td>
<td>[70,73)</td>
<td>[60,70)</td>
<td>[0,60)</td>
<td>W</td>
</tr>
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If the course is taken Pass/No Pass, then \( \geq C^- \) is considered passing and is given the grade Pass (P); work \(< C^- \) is considered not passing and is given the grade No Pass (NP).

40% Homework
Homework will be assigned approximately weekly on Blackboard. Homework must be written up neatly with multiple pages stapled. Students are encouraged to work together to learn the material, but each student must independently write up his/her own solutions. Homework is a major part of the course. No late homework will be accepted.

10% Quizzes
Given weekly and unannounced in lecture. No quizzes during exam weeks. The lowest score is dropped. No makeup quizzes.

30% Midterm Exams
15% each. Friday, March 2 and Friday, April 13 in class. No electronic devices, notes, or books are allowed on exams.

20% Final Exam
Take home exam. Distributed the last day of class, Friday, May 11. Due to me in my office 9–11 a.m. on Wednesday, May 16. **Late exams will not be accepted.** Your own course notes, midterm exams, homework, and quizzes, as well as the course textbook and course handouts (including solutions), may be used on the take home final. No discussions with other human beings, electronic devices of any kind, or other books are allowed.
Disabilities
The college will make reasonable accommodations for persons with documented disabilities. Students should notify the Office of Disability Services located in Peters G-27/G-28 and their instructor of any disability related needs within the first two weeks of class.

Honor Code
The College requires that students sign an Honor Code for all assignments. This pledge (which is written out on each assignment) states: “I affirm that I have adhered to the Honor Code in this assignment.” For further information, see the student Honor Code, which you can access via Blackboard>Lookup/Directories>Honor Code.

Important Dates

- First day of classes: Monday, February 6.
- Add/drop deadline: Wednesday, February 15.
- Midterm Exam I: Friday, March 2 in class.
- Spring recess: Saturday, March 24 – Sunday, April 1.
- Midterm grades available via PRESTO: Thursday, April 5.
- Last day to declare P/NP or to withdraw: Monday, April 9.
- Midterm Exam II: Friday, April 13 in class.
- Last day of classes: Saturday, May 12 (at Noon).
- Final Exam: Wednesday, May 16, 9 - 11 a.m.