Syllabus

Instructor: Dr. Susanna Epp

E-mail: sepp followed by @ depaul.edu
(I have been inundated with junk mail, which I often delete after only a cursory glance. To ensure that your message is not overlooked, please put [MAT140] at the start of the subject heading for all e-mail messages to me about the course.)

Office Hours: Th 4:40-5:40 Loop Office, Lewis Center Room 1652 and by appointment. (312-362-5469 during office hours)

Prerequisites: MAT 130, or a sufficiently high score on the Mathematics Diagnostic Examination, or consent of instructor.

Time and Location: Th 5:45 – 9:00, Lewis Center Room 1103

D2L Course homepage: https://d2l.depaul.edu

Textbooks and other materials:
A scientific calculator.

Summary of Course: This course and its companion (Math 141) are intended to provide a solid foundation for further study of mathematics, programming languages, database theory, data structures, and analysis of algorithms. The focus of Math 140 is on the basic principles of logical reasoning and how to apply these principles to formulate and explore the truth and falsity of statements in mathematics and computer science. Proof, disproof, and conjecture all figure prominently. The main vehicle for exploration is number theory, including divisibility properties of integers, the infinitude of the prime numbers, the representation of real numbers on a number line, and properties of rational and irrational numbers. The last part of the course deals with combinatorial reasoning and its applications in a variety of different areas.

In this course you will find a much greater emphasis on communication, both written and oral, than in other mathematics course you may have taken. Justifying a belief in the truth or falsity of a mathematical assertion requires a rational argument. A main theme of this course is learning to express such arguments with clarity and precision.

The specific topics to be covered, together with the corresponding sections of the course text, are as follows:
Homework and Grading Policy: Mathematics is not a spectator sport. Like any participatory activity, it must be practiced regularly to be mastered. On average, students are expected to do 2 hours of work outside class for each hour spent in class. Thus each 3-hour class period, requires, on average, 6 hours of work outside class. While some very well-prepared students may be able to do well with less, others may need to devote additional time in order to succeed.

- Homework will be assigned weekly. Assignments will be posted on D2L. Be sure to consult the course website for the assignment if you ever need to miss a class.
- Since students learn a great deal when they verbalize their thoughts in mathematics, you are encouraged to work together on homework and group quizzes. But anyone found cheating on an individual quiz or an exam will receive an F for the course.
- Be prepared for a quiz every week except on exam days, mostly done with partners but without books or notes. Since the quizzes and exams will reflect the homework, mastering the material in the homework will be essential for success in this course. Except for the weeks just before the midterm and final exams, if you miss a class in which a quiz was given, you may make it up provided you do so before the next scheduled class meeting. No make-up quizzes will be given after that time.
- Final Grade Computation:
  
<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes (lowest score dropped)</td>
<td>10%</td>
</tr>
<tr>
<td>Homework</td>
<td>10%</td>
</tr>
<tr>
<td>Midterm exam (Feb. 9)</td>
<td>40%</td>
</tr>
<tr>
<td>Final exam (Mar. 15)</td>
<td>40%</td>
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The university only allows alternative grades such as Incomplete in cases of documented medical emergencies or other serious adversities.

Make-up Exams: If you are ill at the time of the midterm or final exam, you must contact me in advance of the exam to make special arrangements.
Tutoring: Mathematics tutors are available to assist students on the Lincoln Park and Loop campuses. The tutoring schedule is available at http://csh.depaul.edu/departments/mathematical-sciences/resources/Documents/TutoringSchedule.pdf.

Important Dates:
Monday, January 9: Last day to add a class in order to receive credit  
Monday, January 16: Last day to drop classes with no penalty and last day to select pass/fail option  
Tuesday, January 17: Grades of “W” assigned for classes dropped on or after this day  
Monday, January 23: Last day to select auditor status  
Thursday, February 9: Midterm exam  
Monday, February 20: Last day to withdraw from class  
Thursday, March 15: Final exam

External Links: A collection of Java Applets and other supplementary discrete mathematics material is available at http://condor.depaul.edu/~sepp/DMwA4e.htm.

DePaul University's Academic Integrity Policy: Students must abstain from any violations of academic integrity and set examples for each other by assuming full responsibility for their academic and personal development, including informing themselves about and following the university's academic policy. Violations of academic integrity include but are not limited to the following categories: cheating; plagiarism; fabrication; falsification or sabotage of research data; destruction or misuse of the university's academic resources; alteration or falsification of academic records; and academic misconduct. The Academic Integrity Policy of the University, is at http://academicintegrity.depaul.edu/AcademicIntegrityPolicy.pdf. General academic integrity information is at http://academicintegrity.depaul.edu/Resources/index.html.

Information for Students with Disabilities: Students who feel they may need an accommodation based on the impact of a disability should contact me privately to discuss their specific needs. All discussions will remain confidential. To ensure that you receive the most appropriate accommodation based on your needs, contact me as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the PLuS Program http://studentaffairs.depaul.edu/plus (for LD, AD/HD) or The Office for Students with Disabilities http://studentaffairs.depaul.edu/studentswithdisabilities (for all other disabilities).