

**DRAFT SYLLABUS**

**Prerequisites:** MAT 140. Prerequisites are strictly enforced by the mathematics department. A prerequisite can only be waived by the approval of the instructor and the department chair. Students must be officially registered for the class in order to earn credit. The deadline for registration is the end of the first week of classes.

**Time, and Location:** M 5:45-9:00, Loop Room TBA

**Textbooks and other materials**

*Discrete Mathematics with Applications*, 3rd Edition, by Susanna S. Epp, Brooks/Cole Publishing, 2004.  
A scientific calculator.

**Summary of Course:** Along with Discrete Mathematics I, this course is intended to provide a solid foundation for further study of abstract mathematics and computer science. This course extends the development of reasoning skills begun in Discrete Mathematics 1, applying them to study a variety of mathematical structures, such as sets, functions, equivalence relations, and graphs, which are needed for advanced mathematics and computer science courses. Proof, disproof, and conjecture continue to figure prominently, as does the emphasis on both written and oral communication. The specific topics to be covered, together with the corresponding sections of the course text, are as follows:

<b>SECTIONS</b>	<b>CONTENT</b>
5.1-5.4	Set Theory (basic definitions; computer science examples; set properties and their proofs)
7.1	Functions Defined on General Sets
7.2-7.5	One-to-one and Onto Functions, the Pigeonhole Principle, Composition of Functions, Introduction to Cardinality
8.1-8.2, 8.4	Recursively Defined Sequences and Applications, Recursive Definitions
9.1-9.2	Real-valued Functions of a Real Variable and Their Graphs; Asymptotic Notations
9.3	Application: Efficiency of Algorithms
9.4-9.5	Exponential and Logarithmic Orders
10.1-10.3	Relations on Sets; Equivalence Relations
11.1-11.2, 11.5	Graphs and Trees and Their Applications

**Contact Information**

**E-mail:** sepp followed by ("at" symbol)condor.depaul.edu

**To ensure that I receive your e-mail,** please put [MAT 141] at the beginning of the subject heading for all e-mail messages.

**Phone:** TBA

**Office and Office Hours:** Lewis Center Room TBA, M 4:40-5:40, and by appointment

**Course website:** Available on Blackboard (<https://oll.depaul.edu>)

**Homework and Grading Policy:** The importance of your active involvement cannot be overstated. Mathematics is not a spectator sport. Like any participatory activity, it must be practiced regularly to be mastered. You will be assigned homework weekly. It will be posted on the course website (click on

'Assignments' on the sidebar menu) and will be collected, graded, and returned to you. Be sure to consult the course website for the assignment if you ever need to miss a class.

Unless an announcement is made to the contrary, there will be quizzes every week except on exam days, mostly done with partners but without books or notes. The midterm exam will be Monday, February 8, and the comprehensive final exam on Monday, March 15. Since the quizzes and exams will reflect the homework, mastering the material in the homework will be essential for success in this course.

The lowest quiz score will be dropped from the quiz average used to compute the final grade. The midterm exam will count for 40% of the final grade, the quizzes for 10%, the homework for 10%, and the final exam for 40%. Alternative grades such as Incomplete will be granted only in cases of medical emergencies or other serious documented adversities.

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.

**Make-up Policy:** Generally speaking, you are expected to take all examinations at their scheduled times. However, 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 up the quiz provided you do so **by coming to my office hour before the next scheduled class meeting**. No make-up in-class quizzes will be given after that time. If you have a documented illness at the time of the midterm exam, you must contact me **in advance of the exam** to make special arrangements.

**Class Attendance and Participation:** You are expected to attend and participate in class. Your success will be limited without your full attendance and participation. If you miss a class, you are responsible for obtaining notes for that class from a student who attended. It is your responsibility to find out about any announcements concerning homework, quizzes or exams that were made during the class. Attendance will be taken during every class.

**Tutoring:** Mathematics tutors are available to assist students on the Lincoln Park and Loop campuses. The tutoring schedule is available at <http://las.depaul.edu/math/StudentResouces/Tutors/index.asp>.

### **Important Dates**

Friday, January 15: Last day to select pass/fail option for WQ2010 classes

Sunday, January 17: Last day to drop classes with 100% tuition refund

Monday, January 18: Grades of "W" assigned for classes dropped on or after this date

Monday, February 8: Midterm Exam

Friday, February 19: Last day to withdraw from class

Monday, March 15: Final Exam (in our usual classroom)

**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. Conduct that is punishable under the Academic Integrity Policy could result in additional disciplinary actions by other university officials and possible civil or criminal prosecution. To review the complete Academic Integrity Policy of the University, please go to <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 PLS Program <http://studentaffairs.depaul.edu/plus> (for LD, AD/HD) or The Office for Students with Disabilities <http://studentaffairs.depaul.edu/studentwithdisabilities> (for all other disabilities).