

Guide to Studying Discrete Mathematics

Discrete Mathematics is probably unlike any previous math class, so the same practices that got you through earlier math courses may not be appropriate for this course. In particular, Discrete Mathematics is often the first class in which students are required to read and write proofs. Below is a recommended outline of study habits that should not only allow you to pass but to obtain a solid foundation in Discrete Mathematics.

Time Requirements: At some point you may have heard the rule of thumb that it is expected that students should spend 2-3 hours per semester hour per week outside of class working on a college course. You should expect this rule to apply for this course. That means you should plan on spending **6-9 hours** per week working on this class outside of class time during the fall or spring terms. Distance students should also plan to spend at least the **additional 3 hours** you would have spend in class sessions if you took the class in a residential setting, so your overall time commitment for this course should be at least **10-12 hours per week**. Typically, distance students do not spend any less time on the course than residential students; they simply have more flexibility in when to schedule those study hours. If possible, set up your study schedule with several shorter 1-2 hr. sessions rather than only one or two marathon sessions.

Comments on Lecture Notes: The lecture notes provided for the course contain the material you will be expected to know. They also have many exercises to help you test your understanding as well as provide you with a guide as to the level of difficulty the questions on tests will be. You may not understand everything or be able to do all exercises the first time you read them. However, reading the material and working through as many examples as possible can help you make better use of your study time by identifying the content where you have more questions and need to focus more attention.

How to Study each Unit

Preview the assigned practice exercises, quiz questions and graded assignment problems. Begin by reading exercises that are assigned for a grade from the next set of material. You may not understand all the questions, but that is OK. This will help you “know where you are heading”
Read the course notes and applicable text sections, *including working on the exercises in the notes*. Make notes and questions in margins. When you come across material that you believe will help you in solving a graded exercise, make a note of it and/or try the exercise in question. Complete the **practice** exercises listed in the assignment and check solutions. Refer to the Student Solution Guide for more detail about solutions when needed. Do NOT spend more than 15 minutes on any one exercise if you are not making progress. Mark that exercise as one to ask about and move on.

Ask questions about the material from the lecture notes and exercises. For distance students, the Blackboard course website Discussion Board will have a forum for each section of the course Lecture Notes. Feel free to answer other student’s questions as well as post questions. Post solutions to exercises in the Lecture Notes for extra credit (see rules for extra credit)

Study the material. Learn definitions, properties, theorems, and formulas. Flash cards can be useful for learning definitions, properties, theorems, and formulas.

Complete **graded assignments**. Work on the written assignment exercises for the unit. If you are not progressing with a problem or are lost in an entire topic, contact your mentor for assistance. Reread completed exercises and revise if needed before submitting the **written assignment** to the Blackboard course website dropbox. Always reread completed exercises after converting to .pdf format before submitting! Complete the **Quiz** for each unit.

Review class notes and reread/rework material that originally gave you difficulty. If you still have difficulty with that material, ask your mentor or instructor for help on that specific topic.

As needed: review definitions, theorems, and formulas; review exercises from lecture notes and work the recommended exercises in the text covering the material you need more practice on.

Prepare for exams. If there is an exam in the next week, work the review when it becomes available. Exam problems are very similar to and sometimes cut-and-paste from the review. Review problems generally come from problems like those in the lecture notes.