

MTH 140: Study Guide for Exam 2



Instructions: Exam 2 is going to contain a mix of free response questions, fill in the blank and multiple choice questions. It will be given on Canvas and will be available for you to take any time from *Monday April 6th - Friday April 10th*. **You will have one try and a two hour window.** The exam is password protected. Your proctor will enter the password for you. You will be allowed to use your own formula sheet and your calculator.

In preparation for the exam, you may wish to do the following:

- Review the concepts learned in each section and as you go, **make a summary, formula sheet**. This will help you have all the things you need to remember in one place so you don't have to flip through your notes as you study.
- Review the exercises used as examples during the lectures.
- Review problems from the homeworks.
- Go over this Study Guide and make sure all the concepts/formulas look familiar and you know when/how to use them.
- Finally, after you have studied, take the practice exam. This assignment is not required. It is there for you to use as practice after you have studied. Do not use the Practice as your only preparation for the Exam; use it as a study tool.

Please read the info posted in the Syllabus: Important exam policies:

- AI tools are strictly prohibited - any use of artificial intelligence assistance will result in academic dishonesty charges
- You may use your own formula sheet only
- Absolutely no make-ups or retakes - plan accordingly (however, your final exam score may replace your lowest or missed exam)
- One attempt only - once the proctor enters the password you begin and that's your final submission
- You will turn in the formula sheet and the work for the exam. I will be giving partial credit. So turn in work on the scratch paper the proctor will give you. Make sure to write the question number and the work corresponding to it. No partial credit will be given if there is no organized, legible work turned in for the problem.

Exam 2 will cover all of Chapter 2 and Chapter 3(not all of it). The material corresponds to Days 8-17.

- **Chapter 2 Scheduling**

- Know how to get the optimal schedule when you are given a priority list.
- Know how to form a priority list using the **Decreasing time algorithm**.
- Know how to form a priority list using **Critical Path Algorithm**.

- **Chapter 3 Probability**

- Definitions and examples of experiments, outcomes, sample space, events,
- Classical versus empirical probability
- Know how to find probabilities of simple events
- Know how to find probabilities of complex events involving **or**; using **Venn diagrams**.
- Know how to find **conditional probabilities** from tables or using the formula.
- Know how to find probabilities of complex events involving **and**; using **tree diagrams**.
- Know how to apply the Fundamental Principle of counting
- Know how/when to apply permutations/combination formulas