

Exam 4 – Confidence Intervals, Hypothesis Testing

Study Guide & Review



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Chapters 8 & 9

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General Exam Info

Exams are a way for you to show me what you have learned (and please show all your steps so I can see this!) and to give you a sense of accomplishment! They are meant to be challenging and not just homework problems with the numbers changed. I really want to prepare you for university level math classes—so some exams may be longer or more challenging than others. Remember that I do grade fairly and my goal is to push you to succeed and excel in this class. I often give hints in class as to exam problems (another great reason to come to class!), and I will post study guides along with the best way to review for each exam.

- Four exams are given during the semester—check our schedule for the exact dates.
- **Attendance required for all exams** and there are “**No Make-up Exams**” for any reason. However, I may replace the lowest exam score, regardless of the reason, with your final exam score provided the final exam score is higher than your lowest exam score and all assignments are turned-in on time.
- Your valid **PCC student ID** or a valid **government ID** is REQUIRED for all exams.
- During the exams—you will be required to leave your backpack and all non test items at the front of the room, including cell phones and smart watches. Only your pencil/eraser and calculator will be allowed during the exam, and there will be a calculator check. Should you need to leave during the exam please ask for permission first before leaving and leave your cell phone with me. Not doing these things could result in a 0 on your exam.
- Once the exam is returned, any problem you would like me to revisit must be brought to my attention by the next class session.
- **Always keep your exams!**

Exam 4 Specific Info

- The exam is scheduled for the end of the class period, the last 80 minutes.
- Almost all questions have multiple parts
- **You will be allowed to bring a one-page “cheat sheet” to be used during Exam 4. However, there are specific rules for an acceptable cheat sheet that you must carefully follow!**
- There will be no formula sheet for this exam – so please bring an acceptable cheat sheet!
- You will need a calculator (only Ti83/84 allowed)—you won’t be able to use your phone.
- You need to know what all the various terms in **bold** mean, but you don’t need to memorize definitions. I’m not going to ask you to “Define ...”. Instead I ask you questions that use those terms.
- **Material covered: Sections 8.1, 8.2, 8.3, 9.1, 9.2, 9.3**
- Old material: You still need to know Chapters 1-7. Basically: don’t forget to study Exam 1, 2, & 3 (and also the study guides!)
- $(M \rightarrow E)$ “**Math to English**” If you see this, it just means that I would like you to write your answer in a complete sentence and include all relevant **units**.
- Types of Questions to expect:
 - True-False
 - Circle the right answer
 - Fill-in the blank
 - Multiple-choice
 - Short response

Practice Test

Note: solutions to all review exercises are available at the back of the book!

• Chapter 8

- Chapter Quick Quiz, p.407-408: #1a, b, 2, 3 – 7;
- Review Exercises, p.408-409: #1a, b, e, 2 – 8 all;
- Cumulative Review Exercises, p.4Ths 9-410: #1 – 4 all;

• Chapter 9

- Chapter Quick Quiz, p.461-462: #1 – 10 all;
- Review Exercises, p.462-463: #1 – 8 all;
- Cumulative Review Exercises, p.464: #1 – 4

Rules for an acceptable Cheat Sheet

Please read the document “GoodvsBad” Cheat Sheets which is linked on our webpage. It was written for a different school but the info obviously is school-independent.

The key to making a Good Cheat Sheet (GCS) is that it has to be **done by hand** and **well-organized**. Printing one out from the internet will not be allowed and defeats the purpose of a GCS.

I will collect your cheat sheets before the exam begins and you will start the exam promptly. While you are taking the exam I will check them individually to see if they satisfy **my** requirements for a GCS. If they pass, it will be returned to you and you can use it for the remainder of the text (approximately 15-20 minutes after the exam begins). However, if it's a bad cheat sheet then I will not return it and you will not be able to use it on the exam.

Please follow the following rules/requirements:

- Must be hand-written & NEAT & written by YOU!
- SIZE: using a regular 8.5” x 11” piece of white paper (no other paper allowed, no lined paper, graph paper, etc)
- CHEAT SHEET NOTES ARE ONLY ALLOWED ON **ONE SIDE of the page**
- In the side that you are writing your notes include in the top the following info: Your name, Course, and Date.
- You may include an unlimited number of definitions, theorems, graphs, formulas, and calculator instructions.
- **No worked out or solved problems** are allowed on your cheat sheet.
- Must follow the principles outlined in the GCSvsBCS document discussed in class and available on my website.
 - YES, this is completely subjective and up to my discretion
 - If I don't think you followed the spirit of the document or if you failed to follow any of the above directions then I reserve the right to not allow you to use your cheat sheet
- *****BONUS***** If your cheat sheet is beautiful & complete (meaning it has the main ideas from all of the material we covered) you can earn 3 extra credit points on your exam.
- If you have any questions, you can email me.