

Student Usage of the Book

Studying Mathematics and Statistics

To understand mathematical and statistical content proficiently, consistent dedication of two of our most precious and demanded resources, time and attention, are necessities. Both time and attention are in high demand and seem to be scarce commodities. We must be intentional in setting and keeping a schedule; that is our time commitment. Given today's society and technology, we must be even more intentional in our attention. Our thoughts, phones, computers, and family/friends consistently interrupt and with great frequency. We can mitigate the influence of the last three preemptively by selecting an appropriate location, setting boundaries, closing applications, and turning off notifications. Some of us might actually miss the constant stream of interruptions when they are gone (for our brief study sessions); we are not used to being in silence, thinking deeply, or attending for lengthy durations. Many of us will struggle; that is okay. We are not alone in this.

We cannot separate ourselves from our thoughts, and the concerns of the day often creep up when trying to study. We recommend a couple practices. There are many possibilities; find some that work for you. When you first sit down to study, take a minute or two to settle your mind, acknowledge the fact that your concerns are real but not pressing; they can wait until after your study session. During the study session, when you realize your mind is wandering or distracted, acknowledge that fact and then immediately reorient back to the material. We cannot hope to eliminate all mental distractions, but we can try to minimize the time that we are distracted.

Mathematical and statistical content takes attention and practice to understand. When we read, take notes, work examples, and attempt problems, we are working towards understanding and internalizing the ideas. We are not memorizing procedures or merely crossing tasks off a to-do list. Intention matters tremendously; remember why we are studying. Perhaps, we do not know why. If that is the case, begin pondering and researching. We address this in part early in the first chapter. For this semester, let us set the time and space for us to attend to course material so that we can understand the ideas, beauty, and applications proficiently.

Book: Reading, Notes, and Exercises

Both mathematics and statistics courses build throughout the semester. There is a logical progression; there is a story that builds continuously. Textbooks often chunk the story into disparate bites to the point that the story is lost. We have tried earnestly to relay the story as well as we can. If you do not understand something, do not move on as if it does not matter: identify that which does not make sense and ponder, reread, ask questions, etc. We strongly encourage you to [take notes](#). Each lesson has learning objectives to help gauge what is important and bolds key terms to help you recognize their importance and for ease if you need to return for reference (ideally, your notes will work better for a quick reference). To be successful, we need both the big story and the details; it is important to attend to both. To help achieve this goal, we have created many text exercises.

? Text Exercise 1

When you see a box like this, it means that we have introduced some concept or idea that we think you are ready to think about and explore. Read the prompt and engage with it. We often ask for justification. Construct an answer in your notebook if you can. Compare your answer to our answer. Make modifications to your understanding. Go back and see if you can identify something that you missed that was important to the solution.

Answer

Do not read the prompt and immediately click to see the answer. Trying these exercises on your own is key to understanding and internalizing the material. If you cannot come up with a solution, that is not a problem (some of them are harder than others). Use the answer to help you. Try to identify the ideas in the answer and then go back to where they were presented in the text. Ask yourself: what could I have done to help draw these connections?

Learning statistics takes a lot of work and discipline. Know that you are not alone in this endeavor. We are very much interested in supporting you throughout the process of understanding and internalizing the material. Instructors, peers, and tutors are great resources to support you. Jump in with both feet, schedule your study sessions, take steps to ensure you can attend to the material sufficiently, and enjoy the journey. Good luck!