

SDS/MTH 220 Syllabus

Albert Y. Kim & Jenny Smetzer

Last updated on 2019-01-31

Basic information

- **Course title:** SDS/MTH 220: Introduction to Probability and Statistics
- **Instructor:** Albert Y. Kim - Assistant Professor of Statistical & Data Sciences
- **Email:** **Slack team:** Click hashtag icon in navbar for the browser interface or use the desktop app.
- **Meeting locations/times:**
 - **Lectures:** MWF 11:00-12:10 - Sabin-Reed 301
 - **Labs:** Held by Dr. Jenny Smetzer (Note lab end times are incorrectly listed on Course Search)
 - * Sec 01: Tue 1:00-2:20 - Sabin-Reed 301
 - * Sec 02: Tue 3:00-4:20 - Sabin-Reed 301
- **Outside help:**
 - The **#questions** channel on Slack.
 - Spinelli Center for Quantitative Learning Tutoring: Sunday thru Thursday 7-9pm in Sabin-Reed 301.
 - Albert's office hours in McConnell Hall 215: Mon & Wed 2:45-4:00 and by appointment (click [here to book](#)).
 - Jenny's office hours in Bass 403: By appointment on Tu 11:00-12:20 and Wed 10:00-12:20 and 1:00-2:00 (click [here to book](#)).
 - Spinelli Center Data Counselor Vahab Khademi in Seelye 207: By appointment (click [here to book](#)).

Instructor work-life balance

- I will respond to Slack messages sent during the week within 24h. I will respond to Slack messages sent during the weekend at my own discretion.
 - If possible, please only Slack me with briefer and administrative questions; I prefer having more substantive conversations in person as it takes me less energy to understand where you are at.
 - I will do my best to return all grading as promptly as possible.
 - I will rarely be on campus on Thursdays as this is my self-care day.
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How can I succeed in this class?

Ask yourself:

- **When I have questions or don't understand something:**
 - “Am I asking questions in class?”
 - “Am I asking questions on Slack in **#questions**?” Even better: “Am I answering my peers' questions on Slack?”
 - “Having I been going to the Spinelli tutoring center?”
 - “Have I been coming to Albert or Jenny's office hours?”
- **Lectures, labs, and readings:**
 - “Am I staying on top Slack notifications sent between lectures?” If you need help developing a notification strategy that best suits your lifestyle, please speak to me.

- “Am I attending lectures consistently?”
 - “Am I actually running the code and studying the outputs in R during in-class exercises, or am I just skimming the text?”
 - “Am I completing all the ModernDive readings/in-class activities for a given lecture before the start of the next lecture?”
 - “During in-class exercises and lab time, am I taking full advantage that I’m in the same place at the same time with the instructor, the lab assistants, and most importantly your peers, or am I browsing the web/texting the whole time?”
 - **Problem sets, DataCamp, and coding:**
 - “Am I actually doing the problem sets?”
 - “Have I been attempting a good faith balance between to push myself during DataCamp exercises while not banging my head on the wall, or am I just taking the hints/solutions without any effort?”
 - “When learning to code, much like learning a language, have I been really pushing myself to practice, practice, practice?”
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Course Description & Objectives

- **Official course description:** On Smith College Course Search.
 - **Objectives:** This semester you will
 1. Learn statistical inference via data science, not mathematics/probability theory.
 2. Engage in the data/science research pipeline in as faithful a manner as possible while maintaining a level suitable for novices.
 3. Develop your statistical literacy, a necessary ability for effective citizenship.
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Topic Schedule and Readings

A rough topic schedule and corresponding readings are posted below on the main page of this course webpage. We will draw from the following sources:

1. Statistical Inference via Data Science: A moderndive into R and the tidyverse. We’ll be using the development version; click link in menubar above. Follow the book on Twitter @ModernDive.
2. OpenIntro: Introductory Statistics with Randomization and Simulation by Diez, Barr, and Cetinkaya-Rundel
 - Free PDF
 - Hardcover. Available for \$8.49 on Amazon
3. DataCamp: an online interactive environment for learning data science currently via R and Python. On top of the DataCamp courses we’ll cover this semester, you have free access to all their courses for 6 months.

Policies

- Bring your laptop, a set of headphones, colored pens/pencils, and your paper notebook to every lecture.
- You are expected to stay until the end of lecture. If you need to leave before the end of lecture, please confirm with me first.
- Attendance will not be explicitly taken and occasional absences are excused. However, extended absences should be mentioned to me.

- However, you are responsible for asking your peers for what you missed. For example, makeup lectures will not be held during office hours.
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Evaluation

Weekly Problem Sets 10%

- Total of 10 problem sets: assigned during Tuesday labs, due the following week.
- Two lowest scores dropped.
- The problem sets in this class should be viewed as low-stakes opportunities to practice, instead of evaluative tools used by the instructor to assign grades. **Each problem set is worth ~1% of your final grade.**

DataCamp Assignments 5%

- Assigned during Tuesday labs, due the following week.
- DataCamp is meant to be low stakes-practice, so the only thing that matters for your grade is whether you complete the course. So while things like the number of hints/solutions taken don't factor into your grade, it is important to make a good faith effort to answer these questions the best you can.
- While you may do them in advance if you are curious, it is most definitely not required. Note that the DataCamp schedule may change, with certain courses dropped/added.
- Jenny will talk more about DataCamp during Lab 2.

Quizzes 5%

There will be 2-3 quizzes assigned during the course of the semester. They will always be announced beforehand.

Term Project 30%

See Term Project page. While your term project grade is only based on your final resubmission on the last day of class, your level of contributions at all the intermediate steps (data, proposal, and initial submission) will affect your engagement grade; see Engagement below.

Three Midterms: 45%

- There will be three self-scheduled midterms, including one during finals week. See the Midterms page.
- Lowest score weighted 10%, middle score weighted 15%, and highest score weighted 20%.

Engagement 5%

It is difficult to explicitly codify what constitutes “an engaged student,” so instead I present the following rough principle I will follow: *you'll only get out of this class as much as you put in*. That being said, here are multiple pathways for you to stay engaged in this class:

- Engaging with this class in a fashion where you can say “yes” to all “How can I succeed in this class?” questions above.

- Contributing for all the steps in the term project leading up to the final submission: data, proposal, and initial submission.
- Getting reasonable peer evaluations for your term project.

Policies

1. **Collaboration:** While I encourage you to work with your peers for problem sets and labs, you must submit your own answers and not simple rewordings of another's work. Furthermore, all collaborations must be explicitly acknowledged in your submissions.
2. **Honor Code:** All your work must follow the Smith College Academic Honor Code Statement; in particular all external sources must be cited in your submissions.
3. **Problem sets:**
 - No extensions will be granted without a dean's note.
 - To receive full credit, you must show your work and explain your reasoning in your solutions.
 - All written problem sets must be handed in at the start of lab. No emailed submissions will be accepted; if you can't make it to class ask a classmate to turn it in for you. They must be stapled with the fringe/perf from any spiral notebook paper removed.
4. **Midterms/quizzes:**
 - No make-up quizzes or midterms will be allowed without a dean's note.
 - Timestamps for all midterms will be strictly enforced.
5. **Grading:** I reserve the right to not discuss any grading issues in class and instead direct you to office hours.

Accommodations

Smith is committed to providing support services and reasonable accommodations to all students with disabilities. To request an accommodation, please register with the Disability Services Office at the beginning of the semester. To do so, call 413.585.2071 to arrange an appointment with Laura Rauscher, Director of Disability Services.

Code of Conduct

As the instructor and assistants for this course, we are committed to making participation in this course a harassment-free experience for everyone, regardless of level of experience, gender, gender identity and expression, sexual orientation, disability, personal appearance, body size, race, ethnicity, age, or religion. Examples of unacceptable behavior by participants in this course include the use of sexual language or imagery, derogatory comments or personal attacks, trolling, public or private harassment, insults, or other unprofessional conduct.

As the instructor and assistants we have the right and responsibility to point out and stop behavior that is not aligned to this Code of Conduct. Participants who do not follow the Code of Conduct may be reprimanded for such behavior. Instances of abusive, harassing, or otherwise unacceptable behavior may be reported by contacting the instructor.

All students, the instructor, the lab instructor, and all assistants are expected to adhere to this Code of Conduct in all settings for this course: lectures, labs, office hours, tutoring hours, and over Slack.

This Code of Conduct is adapted from the Contributor Covenant, version 1.0.0, available [here](#).

Signature

I have read this syllabus in its entirety.

Signature:

Printed name:

Date: