

STT 421: Statistics I (3 credits) Fall 2019  
Preliminary COURSE SYLLABUS

INSTRUCTOR: Raoul LePage OFFICE: C428 Wells Hall EMAIL: lepage@msu.edu

LECTURES: M W 8:30am–9:50am in 008 Agriculture Hall

OFFICE HOURS: Tu, Th hours likely to be 8:30–9–50am in the same room as the course. Location of office hours is being finalized. Or by appointment in my office C428 Wells Hall.

HELP ROOM:

Walk-in help from teaching assistants in the Statistics Help Room, A102 Wells Hall. The Help Room schedule, usually after 1 week of classes, is posted shortly into the semester:

<https://stt.natsci.msu.edu/academics/help-room-schedule>

d2l WEBSITE: d2l will be used to post some course material. Use the following link to set up your connection. If it is not set up don't worry. I will email the class til then.

COURSE DESCRIPTION: STT 421 is the first course in a two-course sequence (with STT 422) in introductory probability and statistical inference for students without a background in calculus. Covered topics include descriptive statistics, basic probability, random variables and common distributions, estimation and tests of significance.

PREREQUISITES: MTH 103 or MTH 110 or MTH 116. Not open to students with credit in STT 200 or

STT 201.TEXTBOOK (required): Moore, McCabe, Craig, Introduction to the Practice of Statistics, 6th edition. Publisher: W. H. Freeman and Company, 2009. ISBN: 9781429216227. Selected sections from chapters 1–10 will be covered. Early chapters are covered more completely.

COURSE COVERAGE: Sections below, supplemented by other materials.

Ch. 1 thru 6.

Sections 7.2, 7.2.

Ch. 8.

Section 9.1.

Section 10.1.

PRACTICE PROBLEMS FROM THE TEXTBOOK (do not hand in):

Some exercises from the textbook that illustrate the ideas covered in class are recommended below. They will help you understand the readings. Answers to odd-numbered problems are available at the end of the textbook.

If you encounter difficulty solving these problems, you should re-

study the material, seek help, perhaps in the help room, or in office hours, and do additional problems to improve your mastery of the concepts and methods. Try to keep ahead of the topics as I take them up in class.

Here are the practice problems.

1. 1.10, 1.15, 1.17abc, 1.20, 1.21, 1.25, 1.27, 1.67, 1.69; 1.120, 1.121, 1.122, 1.123.
- 2: 2.5, 2.6, 2.7, 2.9, 2.22, 2.57, 2.123
- 3: 3.53, 3.54, 3.72, 3.83
- 4: 4.21, 4.37, 4.51, 4.55, 4.72, 4.73, 4.101abc, 4.106, 4.107, 4.116 (for problems 4.72, 4.73 also find standard deviations)
- 5: 5.11, 5.23ab
- 6: 6.53, 6.55
- 7: 7.15, 7.18
- 8: 8.1, 8.2, 8.3, 8.4, 8.19, 8.23, 8.25 (for problems 8.19, 8.23, 8.25 also find 90% and 99% confidence intervals, 'Table A' should be just inside the back cover)

Some material from lectures may be posted to d2l for ease of note taking but you really need to be in class to get all of what I have to say. Ask questions to slow my pace and help deepen the delivery.

**ATTENDANCE:** You are expected to attend all class meetings. If you miss a class for whatever reason, it is your responsibility to obtain all class materials and assignments.

I will post some lecture materials on d2l, or email you til d2l is set up.. Students who take good notes are encouraged to approach me about posting some of their notes on d2l. Your classmates will appreciate seeing different approaches to hw and perhaps ensuing discussion in class.

This course is constantly moving on. Don't fall behind. To be successful in this course, you need to attend classes regularly and keep up with course materials.

Again, get in the habit of asking questions in class. You can stand if you wish to when asking a question.

**HOMEWORK:** There are four GRADED homework assignments; each hand graded on 4.0 scale. The assignments will be collected at the beginning of class on the specified due dates. They are due just before exams (see below). You will get to see the style of questions used on the exams.

Late assignments will not be accepted, and no makeups will be given for any reason. Your lowest graded assignment will be dropped.

All hw assignments will be posted on d2l. It is your responsibility to print them and submit the printed form showing your work (filling in key requested insights in boxes provided for them). This is not

multiple choice. Exam questions will follow that same style with due regard for time constraints. Assignments will be turned in at the beginning of the class on their specified due dates.

**EXAMS:** You must attend and submit all four exams. We will have assigned seating every class meeting and on exam days. Your overall exam grade will be the average grade of your three best grades. Every student has to stay til the end of the exam period. Owing to the room layout no questions will be answered during the exam. Broken questions discovered by me will be corrected on the board during the exam. If a broken question is detected during grading full credit will be given the affected parts. All four exams are closed book and closed notes. No notes or extra paper or electronic devices (including headphones/buds, calculators, computing devices, etc.) are allowed on exams.

**Final Exam:** Monday, Dec 9 2019 7:45am – 9:45am in 008 Agriculture Hall  
There will be no final exam. Instead, the period will be devoted to conversations with students.

**MAKEUP EXAMS:** Makeup exams will not be given. If you have to miss an exam you drop that exam.

**Grading:** Each exam will be graded on 0.0 to 4.0 scale (for exceptional performance > 4.0).

Likewise each submitted hw will be graded. So too your attendance.

$$\begin{aligned} \text{course grade} &= 0.35 \text{ (avg best 3 hw grades)} \\ &+ 0.55 \text{ (avg best 3 of exam grades)} \\ &+ 0.15 \text{ attendance grade} \end{aligned}$$

which will be rounded according to

e.g. grade at least 2.8 but less than 3.3 earns 3.0 grade  
except that 1.7 does not round up to 2.0 but is 1.5, etc.

**ACADEMIC HONESTY:** The Department of Statistics and Probability adheres to the policies of academic honesty as specified in General Student Regulations 1.0, Protection of Scholarships and Grades, and in the All-University of Integrity of Scholarships and Grades which are included in Spartan Life: Student Handbook and Resources Guide. Students who plagiarize will receive zero points for the assignment. In addition, all students involved are considered responsible, including the students from whom others copy. This is your responsibility to place your materials in such a way that other students will not have an opportunity to copy them.

**ADA:** To arrange for special needs accommodations, you have to contact the Resource Center for People with Disabilities (RCPD) by phone: (517)353-9642 or by email: <http://www.rcpd.msu.edu> as soon as possible. Don't wait until just before an exam. Provide your RCPD VISA to your instructor as soon as you obtain it.

**RVSM:** Michigan State University policy regarding sexual harassment is

enforced. As a university employee, the instructor is a mandatory reporter. Information on the University policy on Relationship Violence and Sexual Misconduct is available at [www.oie.msu.edu](http://www.oie.msu.edu)

GRIEF ABSENCE POLICY: Information is available at <https://reg.msu.edu/ROInfo/Notices/GriefAbsence.aspx>

RELIGIOUS OBSERVANCE POLICY:  
Information is available at <http://www.interfaith-calendar.org/2018.htm>

#### IMPORTANT MSU DATES FOR FALL 2018

Classes Begin  
Wednesday, 8/28

Holiday – University Closed  
Monday, 9/2

Middle of Semester  
Wednesday, 10/16

Holiday – University Closed  
Thursday, 11/28 – Friday, 11/29

Classes End  
Friday, 12/6

Final Exam  
Monday, 12/9 – Friday, 12/13 in the classroom (no exam, I will be there to speak with students)

Commencements  
Friday, 12/13 – Saturday, 12/14

Holiday – University Closed  
Tuesday, 12/24 – Wednesday, 12/25

Holiday – University Closed  
Tuesday, 12/31 – Wednesday, 1/1

#### KEY DATES FOR THIS COURSE

Graded HW	posted	solution due in class	key posted
pre exam 1	Wednesday 9/18	Monday 9/23	Noon 9/23
pre exam 2	Wednesday 10/9	Monday 10/14	Noon 10/14
pre exam 3	Wednesday 10/30	Monday 11/4	Noon 11/4
pre exam 4	Friday 11/15	Wednesday 11/20	Noon 11/20
Exam	scheduled	key posted	

Exam 1	Wednesday 9/25	Noon 9/25
Exam 2	Wednesday 10/16	Noon 10/16
Exam 3	Wednesday 11/6	Noon 11/6
Exam 4	Monday 11/25	Noon 11/25

STUDENT CONDUCT: This is borrowed language. Respectfully,

- The instructor has the responsibility to teach. Students have the right to learn. Everyone needs to be respectful of the rights of others in class.

- Courtesy: This is a large classroom, so courtesy is extremely important in maintaining effective learning environment. If you arrive late or must leave a lecture early, please do so in a way that does not disrupt others. I may assign seating for the duration of the course. Let me know if you have reasons to have a say in your assigned seating.

- Disruptive behavior which impedes the teaching/learning process will not be tolerated – use of cell phones, audio devices (except tape recorders permitted to record except for exams), and abusive language are prohibited. If you need to be reached in an emergency use a silent setting on your mobile device. Otherwise, turn them off. (I will do this too but need to keep the vibration mode active in case of an emergency.)

- Discussion is encouraged in class. Feel free to ask questions. Again, let's all be respectful when the instructor or other students are speaking.

- Avoid coming late to class. Class lasts the entire period. Remember to not begin packing up before the class is dismissed.

Additional problem sets not found in the textbook will be posted on d2l or emailed to you. It may take me a few days to set up d2l. In the meantime look for emails from me.

DISCLAIMER: The instructor reserves the right to make any changes considered academically advisable. Changes will be announced in class. It is your responsibility to keep up with any changed policies.

If you discover an oversight in this syllabus email me.