
Syllabus: STATISTICS 231

Statistics for Scientists

Section 001 –006

Fall 2019

Instructor: P.K. Pathak, C402 Wells Hall, 353 - 8900, pathakp@stt.msu.edu

Lecture: MW 11:30am – 12:20pm, S109 South Kedzie (SKH)

Office Hours: MW 12:30p – 2:00p (C402 WH) and by appointment

Email: pathakp@stt.msu.edu

Teaching Assistant		STT 231		
Name	E-mail	Phone	Office	Office hours
Jantre, S	jantresa@msu.edu	TBA	C505 WH	Tu 11:30a -- 1:30p
Son, M	sonmooky@msu.edu	775-7249	C523 WH	Fri 1:00p -- 3:00p

Help Resources: Should you need assistance with your course work, be advised that there are multiple sources of assistance and counsel available, including Help Room instructors, teaching assistant and the lecture instructor. You should feel free to get in touch with them as needed. Nonetheless, keep in mind that it is often most efficient to first contact the teaching assistant, who has been assigned to assist Dr. Pathak with the course. In addition Statistics Help Room A102 Wells Hall is staffed for certain hours of the week with teaching assistants to give walk-in help. See Help Room schedule posted on: <https://stt.natsci.msu.edu/academics/>

Websites: <http://msu.lon-capa.org> and <https://stt.natsci.msu.edu/academics/class-pages> will provide course information. If required, log in with your MSU login name and password.

Prerequisite: MTH 124 or MTH 132 or MTH 152H or LBS 118 or approval of the college.

Textbook (Optional): *Statistics with Randomization and Simulation*, by David M. Diez, Christopher D. Barr, and Mine Çetinkaya-Rundel, 2014. It is free and open source : <https://www.openintro.org> or for \$10.00, you may buy a PDF version from local/online bookstores.

Course Description: This course provides a calculus-based introduction to probability and statistics for scientists. The student will learn the theory of statistical decision making and its applications to statistical problems commonly encountered in scientific research. Topics covered will include probability models, random variables, estimation, confidence intervals, testing of hypotheses and simple linear regression.

Course Materials:

- **Required - Webwork subscription:** The WebWork platform will be used for certain homework assignments. Students are required to purchase a subscription via CashNet at a cost of \$50.00. WebWork will start accepting payments for the FS19 semester beginning the second week of the semester.
- **Required - Course pack:** Instead of a hard cover textbook, STT 231 uses an interactive course pack that includes reading assignments and in-class activities. Students may either purchase, print, or work with a digital copy the course pack. In any case, being able to annotate this course pack during lectures is usually an important aspect of the course.
- **Required - Graphing Calculator:** Although any graphing calculator with basic STATS functions will suffice, student support is offered for Texas Instrument models (for example: 83, 84, 89, Inspire). No cell phones or other devices with access to data plans are allowed during exams.
- **Required - Loncapa:** The Loncapa Server will be used regularly to monitor attendance and assess student progress in lectures. To access the website, log in with your MSU login name and password: <https://msu.lon-capa.org>

Homework and Examinations:

Homework will be assigned online using WebWork. Each homework will open on a specified date and time and will also automatically close at a preassigned day and time. PLEASE DO NOT WAIT TILL THE LAST DAY TO WORK ON THE HOMEWORK PROBLEMS. THE LOWEST HOMEWORK WILL BE DROPPED. LATE HOMEWORK WILL NOT BE ACCEPTED.

There will be three exams. Here is their schedule:

- Exam 1: Wednesday, October 9, 2019, 7:00 pm - 8:20 pm, B115 and B117 Wells Hall (WH)
- Exam 2: Wednesday, November 20, 2019, 7:00 pm - 8:20 pm, B115 and B117 WH
- Final Exam: **Wednesday, Dec. 11, 7:45 am – 9:45 am**, location TBA

Classwork: Classwork will be assigned during lecture hours, consisting of two parts “question of the day (QOD)” and “exercise of the day (XOD)”. QODs close at the end of the lecture period while XODs, by 10:00 pm the day they are assigned. Two QODs and two XODs with lowest scores will be dropped. PLEASE DO NOT WAIT TILL THE LAST MINUTE TO WORK ON THESE PROBLEMS. THERE WILL IN GENERAL BE NO EXTENSION.

Attendance: You are expected to attend all meetings of the class. If you must miss a class, plan to get notes for that day from a classmate.

Note: All exams including the final exam are are “closed book” and “closed notes”. The exams will contain questions concerning text material and problems, classroom example and discussions. Further information on these matters, if necessary, will be announced in class and posted on the class website. Missing an exam without a valid excuse presented to the instructor will result in a score of 0 points. Persons who must miss an exam because of medical or family emergency or other exceptional circumstances should present a valid excuse to Dr. Pathak, in advance of the examination whenever possible. All students are expected to adhere to the University’s policy concerning academic integrity. It is covered in the Spartan Life booklet under General Student Regulations. For more information about this, please consult the handbook or visit the Spartan Life website at <http://www.vps.msu.edu/SpLife/>

Evaluation: Points are earned through homeworks (50 points), two midterm examinations (100 points), a comprehensive final examination (100 points), and class work (50 points).

Points Toward Grade	
Source	Points
Homework	50
Two Midterm Exams	100
Class Work (QOD/Recitation)	25
Class Work (XOD)	25
Final Exam	100
Total	300

Your total number of points will be converted into a percentage and your grade will be determined by the following grading scale:

90 – 100%: 4.0;	85 – < 90%: 3.5;	80 – < 85%: 3.0;	75 – < 80%: 2.5;
70 – < 75%: 2.0;	65 – < 70%: 1.5;	60 – < 65%: 1.0;	0 – 60%: 0

Important Dates: In addition to the exam dates, you should be aware of all the University mandated dates related to courses. These are currently available at:

<http://www.reg.msu.edu/R0Info/Calendar/Academic.aspx>

Here are a few of the more important dates:

- Wednesday, 8/28: Classes begin, late enrollment fee begins.
- Monday, 9/02: Labor Day Holiday, University Closed.
- Monday, 9/23 (8:00 pm): End of Tuition Refund Period.
- Wednesday, 10/16: Mid-semester, last day to drop with no grade reported.
- 11/28-29: Thu-Fri, University Closed.
- Friday, 12/06: Classes end
- Wednesday, Dec. 11, 7:45 am – 9:45 am: Final Exam, Location TBA.

ADA:

To arrange for accomodation, a student with special need should contact the Resource Center for Persons with Disabilities.

Phone:353-9642, Website: <http://www.rcpd.msu.edu>.

Disclaimer:

The instructor reserves the right to make any changes he considers academically advisable. Changes will be announced in class and posted on the class website. It is your responsibility to keep up with any changed policies.

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