
Syllabus: STATISTICS 430

Intro to Probability and Statistics

Credit Hours: 3

Fall, 2020

Instructor: P.K. Pathak, C402 Wells Hall, pathakp@msu.edu
(<https://www.stt.msu.edu/~pathakp>)

Lecture: MWF 12:40–1:30 pm, Online Synchronous (Zoom: 432 702 5144):
<https://msu.zoom.us/j/4327025144> password: pathak

Office Hours : MW 2:00–3:30, Online (Zoom: 928 7618 4901) and by appointment: <https://msu.zoom.us/j/92876184901> password: pathak

Online Help: For certain hours of the week, teaching assistance will be available to give online help. In person walk-in help is currently unavailable. See Online Help schedule/status posted on: <https://stt.natsci.msu.edu>

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

Prerequisite: MTH 234 or MTH 254H or LBS 220 or approval of the college (Not open to STT 351).

Required Technology: Access to high speed internet, TI calculator, R Software.

Text: *Probability and Statistics for Engineering and the Sciences*, by J. Devore ISBN 978-1-305-74892-7, Custom 8th edition, Cengage Learnig, 2015

Course Description: This course provides a basic introduction to probability and statistics for math/engineering students. The student will learn the theory of statistical decision making and its applications to statistical problems commonly encountered in practice. Topics covered will include probability models, random variables, estimation, confidence intervals, testing of hypotheses and simple linear regression. The course will cover selected materials from Chapters 1–8 and 12 from the text.

Learning Continuity: If you must miss classes because of ill health or other reasons, get in touch with Dr Pathak as soon as possible by email and make an appointment for a Zoom meeting. Dr Pathak would be happy to assist you in catching up with your course work.

Homework and Examinations:

Homework will be assigned online using LON-CAPA. There will be five homework assignments during the term. Each home work 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 FIVE MIDTERM QUIZZES AND ONE COMPREHENSIVE FINAL EXAM. THE LOWEST QUIZ SCORE WILL BE DROPPED.

Here is the schedule:

- Quiz 1 Friday, September 18
- Quiz 2 Friday, October 2
- Quiz 3 Friday, October 16
- Quiz 4 Friday, October 30
- Quiz 5 Friday, November 13
- Final Exam (100 points): **Tuesday, December 15**

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 11:50 pm the following 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.

Exam Format: QODs, XODs, biweekly Quizzes and the final exams will consist of multiple choice questions and will be administered during online lectures. Biweekly quizzes will open Fridays at 2:00 pm until 11:59pm Eastern Time. Once you generate your quiz by inputting your PID, your quiz will be available only to you to submit responses until your generation time plus 50 minutes. You will be able to submit your answers multiple times to the database during the exam window. A similar system will be used for the final exam. The final exam will open for a ten-hour window and will be available to you to submit your response until your generation time plus two hours.

Make-ups: If you are unable to take a quiz/exam for a legitimate reason, you must contact the instructor on or before the day of the exam. You must justify your absence before you are allowed to take a make-up exam. You cannot take a make-up exam just because you are not ready for the exam.

Note: The exams will contain questions concerning text material and problems, classroom examples 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.splife.studentlife.msu.edu>

Evaluation: Points are earned through four best out of five homeworks (50 points), four best out of five quizzes (100 points), a comprehensive final examination (100 points), and classwork (50 points).

Points Toward Grade	
Source	Points
Homework (4 Best)	50
Quizzes (4 Best)	100
Classwork	50
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 – 89%: 3.5	79 – 84%: 3.0	73 – 78%: 2.5
65 – 72%: 2.0	60 – 64%: 1.5	55 – 59%: 1.0	0 – 54%: 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, 9/02: Classes begin, late enrollment fee begins.
- Monday, 9/07: No Classes.
- Wednesday, 10/21: Mid-semester
- Thu, 11/26; FRi, 11/27: No Classes.
- Friday, 12/11: Classes end
- Tuesday, 12/15: Final Exam, Details 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>.

Help Resources/International Students: All those unable to attend live synchronous lectures are advised to access lecture notes and their videos on the Loncapa server with their MSU NetID and password. Should you need assistance with your course work, there are at least two sources of assistance, the lecture instructor, and Online Help instructors. You should feel free to get in touch with them as needed via email.

It is not always feasible to immediately respond to each and every email addressed to Dr. Pathak. If there is need for urgency, do not hesitate to consult Dr. Pathak via Zoom.

Password for all Zoom Meetings: pathak

Course Continuity: In the unlikely event of possible instructor absence because of health reasons, the Department of Statistics has contingency plans to maintain continuity of the course. In such a case, substitute instructors will take over. Relevant information about substitute instructors etc. will be announced in class and posted on the class website.