

Introduction to Probability

MATH 3013/STAT 3013, Spring 2018

Meeting times: MWF 9:40AM–10:30AM

Room: SCEN 610

Office Hours: MW 11:00am–12:00noon,
M 1–2pm, and by appointment

Instructor: Prof. Matthew Day

Office: SCEN 421

Email: matthewd@uark.edu

Course webpage: <https://matthewd.hosted.uark.edu/3013>

Course description (from the course catalog): A calculus-based introduction to probability. Discrete probability spaces and counting techniques, discrete and continuous probability distributions, random variables, random samples, law of large numbers, central limit theorem. Prerequisite: MATH 2564 or MATH 2564C.

Course Goals: Topics will include sample spaces, conditional probability, discrete random variables, discrete distributions, continuous random variables, continuous distributions, and normal distributions. This will include most of chapters 1–4 and 6–10 of the textbook.

Textbook: *Fundamentals of Probability: A First Course*, Anirban DasGupta. Homework problems and reading assignments will be taken from this textbook.

Attendance: Attendance at lectures is mandatory, and will be recorded.

Homework: Homework will be assigned weekly on Wednesdays and will include reading assignments, and problems that will be collected and graded. Homework will be collected on the Friday of the week after it is assigned. You may consult with other students and you may use any references or resources you like, except that you may not refer to the solution of a problem that is essentially the same as the one you are trying to solve. **Copying of homework solutions from any source constitutes academic dishonesty.** Each student must turn in their own work.

Late homework: Please make every effort to turn in quality homework at the beginning of class on the day it is due. One late homework will be accepted per student. After that, no credit will be given for late homework.

Homework advice: Doing math is largely about problem solving, and you need practice *getting stuck* on hard problems and *getting yourself unstuck*! Please try every problem yourself before getting help. Don't read someone else's solution before you try the problem yourself. Don't turn in a rough first draft of a solution; instead turn in a neat second draft.

Exams: There will be two 50-minute, in-class midterm exams and one cumulative final exam. Exam dates will be confirmed two weeks in advance. Tentatively, assume the exams will be Friday, February 23rd and Friday, April 6th. The final will be given 10:15am–12:15 pm on Wednesday, May 9th, 2017.

Course Grade: To compute your course grade percentage, take the following weighted average:

Homework	Midterm #1	Midterm #2	Participation	Final
25%	20%	20%	5%	30%

Grades will be assigned with an 'A' for 90–10%, 'B' for 80–90%, 'C' for 70–80%, 'D' for 60–70%, and 'F' for 0–60%. Participation includes attendance and participation in class activities. At Dr. Day's discretion, the entire classes' grade percentages may be curved uniformly up, but the grading will be no harsher than described here.

Email and contact: Email is the best way to contact Dr. Day and Dr. Day promises to respond to emails in a timely fashion. Emails received after 9 pm or on weekends might not get a response until the next weekday. You do not need an appointment to come to regular office hours. If you want to meet with Dr. Day outside of the regular office hours, please send an email to make an appointment.

Emergency procedures: Many types of emergencies can occur on campus; instructions for specific emergencies such as severe weather, active shooter, or fire can be found at emergency.uark.edu.

Severe Weather (Tornado Warning):

- Follow the directions of the instructor or emergency personnel
- Seek shelter in the basement or interior room or hallway on the lowest floor, putting as many walls as possible between you and the outside
- If you are in a multi-story building, and you cannot get to the lowest floor, pick a hallway in the center of the building
- Stay in the center of the room, away from exterior walls, windows, and doors

Violence / Active Shooter (CADD):

- CALL- 9-1-1
- AVOID- If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
- DENY- Barricade the door with desk, chairs, bookcases or any items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it's safe.
- DEFEND- Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.

Inclement weather policy: Class will be held if the university is officially open.

Academic Honesty Policy: As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail.

Each University of Arkansas student is required to be familiar with and abide by the University's Academic Integrity Policy which may be found at <http://provost.uark.edu/>. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.

Disability Accommodations: University of Arkansas Academic Policy Series 1520.10 requires that students with disabilities are provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact Dr. Day privately at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through the Center for Educational Access (contact 479–575–3104 or visit <http://cea.uark.edu> for more information on registration procedures).