

BSAN 750 (3 credit hours)
Foundations of Machine Learning and AI
Fall 2026



Website: <https://shaobo-li.github.io/ML-Fall2026.html>

Class Time: T, H 11am– 12:15pm, CAPF 3056

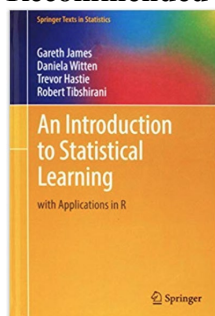
Instructor: Shaobo Li, Ph.D. (shaobo.li@ku.edu)

Office Hours: Thursday 3-4pm or by appointment

Office: CAPF 3166

Teaching Assistant:

Recommended Textbook:



Prerequisites: College level courses on

- Mathematics
- Probability and statistics
- Programming

Course description: This course introduces students to machine learning methods and techniques, which also serve as foundations for understanding modern artificial intelligence techniques. The material presented emphasizes hands-on analytics experience in analyzing real-world data, while covering classical and the state-of-the-art machine learning algorithms in both supervised and unsupervised learning.

Course Outcomes:

- Apply popular machine learning methods to real life data analysis
- Understand fundamentals of machine learning theories
- Identify when a method works and when it does not
- Write basic code for data analysis
- Utilize modern AI tools (e.g., ChatGPT) for coding and data analysis

Assignments: There will be 5 individual assignments and 2 group assignments. The due date will be announced on Canvas at the time when an assignment is posted. All assignments should be submitted electronically through Canvas.

Assessment: There will be 3 in-class exams throughout the semester. Each test has two parts: conceptual questions (on paper and closed-book) and data analysis (on Canvas and open-book). Students should complete the paper part first before working on the second part on laptop. Each part worth 50%.

Final group project: At the end of the semester, each group will work on a project utilizing machine learning techniques to solve real world problems. The project must be based on real data which has not been used in the classroom. More details will be provided later.

Grading:

- Weights: Assignments 40%; Exams 40%; Final group project 20%

- Final letter grade: [90%, 100%] (or top 30%) A and A-
 [80%, 90%) B+ and B
 [70%, 80%) B- and C+
 [60%, 70%) C and C-

Email communication:

To make sure that your message is not accidentally deleted as junk, please include 'BSAN750' in the **email subject** line. Also, be sure to identify yourself in the message.

Attendance: You are required to attend all classes. An early notice must be sent to the instructor via email if you will miss a class or have possible late submission due to health-related issue, travel, or other emergencies.

Accommodation for students with disabilities

The Student Access Center (SAC) coordinates academic accommodations and services for all eligible KU students with disabilities. If you have a disability for which you wish to request accommodations and have not contacted SAC, please do so as soon as possible. The SAC is located in 22 Strong Hall and can be reached at 785-864-4064 (V/TTY). Information about the SAC's services can be found at <https://access.ku.edu/>. Please also contact the instructor privately in regard to your needs in this course.

ACADEMIC CODE OF HONOR

The KU School of Business seeks to develop future leaders with the highest ethical standards. It is through a strong code of conduct that a feeling of mutual trust and respect between students, faculty, and staff is maintained. This code of conduct was developed by the students, faculty, and staff to articulate the School's core values and provide guidance on academic integrity. This code applies to the conduct of students, faculty, and staff at any function or academic activity conducted by the School of Business at the University of Kansas. <https://business.ku.edu/honor-code>.

If cheating is found, anyone involved will be given 0 grade, and case will be reported to university.

Policy on the use of GenAI:

Generative AI may be used to clarify concepts, brainstorm, improve writing, debug code, or check your work, but it should not replace your own work. You are responsible for verifying all AI-assisted work and must briefly disclose the tool used and how it was used. AI is not permitted on exams or assignments unless otherwise stated. Tools may be used to check if submitted work is AI generated.

Other recourses and policy information:

- [Sexual Harassment](#)
- [Nondiscrimination, Equal Opportunity, and Affirmative Action](#)
- [KU Statement on Diversity and Inclusion](#)
- [Academic Misconduct \(USRR 2.7.1\)](#)
- [Change of Grade Policy](#) and [Change of Grade \(USRR 2.4.1\)](#) (i.e., grade appeal)
- [Code of Student Rights and Responsibilities](#)
- [Commercial Note-Taking](#)
- [Mandatory Reporting](#)
- [Racial and Ethnic Harassment Policy](#)
- [Counseling and Psychological Services](#)
- [University Academic Support Centers: Resources](#)
- [KU Writing Center](#)

Tentative Schedule

Week	Topic	Assignment (due on Monday)
1 Week of 8/24	Introduction	
2 Week of 8/31	Overview of supervised and unsupervised learning	HW1 (Individual)
3 Week of 9/7	Some simple ML methods and applications	
4 Week of 9/14	Some simple ML methods and applications Exam 1	HW2 (Individual)
5 Week of 9/21	Linear regression	
6 Week of 9/28	Linear regression	HW3 (Individual)
7 Week of 10/5	Variable selection	
8 Week of 10/12	Regularization Exam 2	HW4 (Group)
9 Week of 10/19	Logistic regression No class on Tuesday (Fall Break)	
10 Week of 10/26	Logistic regression	HW5 (Individual)
11 Week of 11/2	Tree-based methods	
12 Week of 11/9	Tree-based methods	HW6 (Individual)
13 Week of 11/16	Neural networks and deep learning Exam 3	
14 Week of 11/23	Neural networks and deep learning No class on Thursday (Thanksgiving Break)	HW7 (Group) – Project proposal
15 Week of 11/30	Large language models	
16 Week of 12/7	Group project presentation	

* The instructor reserves the right to change this syllabus.