# **DSBA/MBAD 6211: Midterm information (Spring 2024)**

**Exam Date & Time:** February 27 (Tuesday) 5:30pm - 7:30pm (120 minutes)

Quizlet: [Midterm Quizlet](https://quizlet.com/886183786/dsbambad-6211-midterm-information-spring-2024-flash-cards/?i=27xifl&x=1jqt)

**Format:** The exam will be in-class. No remote exam option is available. Questions will be distributed on paper and you are expected to write your answers on separate answer sheets given to you. You are not allowed to use your own answer sheets. You must bring a scientific calculator to do the manual computations (e.g., ln, exp, xy and other simple calculations). No laptops, tablets or smartphones are allowed during the exam. You cannot borrow calculators from your fellow students during the exam. You are allowed a cheat sheet on single side only of a 3”x5” index card or equivalent. The cheat sheet should be hand-written only. No typed content is allowed on the cheat sheet.

Exam 1 will cover the following topics.

* Predictive Modeling
  + Inference vs Prediction
  + Pattern detection and Bonferroni’s Principle
  + Explore, clean and preprocess data
  + Categorical variables and Dummy coding
  + Logistic Regression
* Evaluation of classification methods
  + Confusion matrix
    - calculation and interpretation of evaluation metrics
    - Metrics: classification error, accuracy, precision, recall, F1-measure
* Ensemble Methods
  + Definition and basic idea
  + Bagging
  + Boosting
  + Random Forest
* Support Vector Machines
  + Definition and Purpose
  + Basic Concepts and Terms
    - Support vectors
    - Soft Margin Classification
    - Kernel Trick
    - Advantages and Disadvantages of SVM