

Attendance Policy

Students are expected to attend all class meetings and to arrive before the class starts. Attendance will be taken at the beginning of each lecture. Class topics are integrated and hands-on activities are conducted in the majority of the classes. Failure to attend or to arrive on time can adversely affect both individual performance and the ability to contribute to the group project. *If a student misses 4 weeks of class or more, they will automatically receive an unsatisfactory U grade in the course regardless of earned points to date on other activities.* If a student misses a class due to work or other reasons, it is their responsibility to get notes from peers; the instructor does not hold extra repeat class sessions.

Student Work and Grading

1. (20%) Homework assignments (~ 4 assignments)
2. (10%) Announced quizzes (~ 4 quizzes)
3. (20%) Midterm exam
4. (20%) Final exam
5. (20%) Group project presentations – peer evaluation
6. (10%) Attendance and participation based on peer feedback

Grades

A (90-100%), B (80-90%), C (70-80%), D (60-70%), F (0-60%)

Tentative Schedule

Week 1 (Jan 9):

1. Introduction & Software.
2. Application: Advertising and Promotion

Week 2 (Jan 16 - **Last day to add, drop a course with no grade**):

1. Supervised Learning (Regression); Linear Regression; Overfitting; Regularization; Performance evaluation
2. Application: Demand Forecasting

Week 3 (Jan 23):

1. Data Wrangling and Management
2. **LendingTree – guest lecture**

Week 4 (Jan 30):

1. Supervised Learning (Classification); Logistic Regression; Performance evaluation
2. Application: Bank Marketing

Week 5 (Feb 6):

1. Model Complexity & Model Selection
2. Decision Trees & Combining Models

Week 6 (Feb 13):

1. Unsupervised Learning; Clustering. Application: Customer Segmentation
2. Data Reduction (feature extraction)

Week 7 (Feb 20):

1. Hypothesis Testing – The Scientific Method
2. **LendingTree proposal discussions**

Week 8 (Feb 27):

3. **Midterm Exam**
4. Best Practices in Data Visualization

Week 9 (Mar 13):

1. Recommender Systems
2. Application: Market Basket Analysis

Week 10 (Mar 20):

1. Time Series Analysis
2. Application: Economic Data Analysis

Week 11 (Mar 27):

1. Text Analytics
2. Application: Sentiment & Stock Price Prediction

Week 12 (Apr 3):

1. Neural Networks and Deep Neural Networks
2. Image Analytics Application

Week 13 (Apr 10):

1. Explainable Models.
2. Adversary Approaches.

Week 14 (Apr 17):

1. Regulations and Privacy.
2. Data Anonymization.

Week 15 (Apr 24):

Group Project Presentations

Team Policies and Expectations

If a team member refuses to cooperate on the project, his/her name should not be included on the completed work. If the non-cooperation continues, the team should meet with the instructor so that the problem can be resolved, if possible. If no resolution is achieved, the cooperating team members may notify the uncooperative member in writing that he/she is in danger of being fired, sending a copy of the memo to the instructor. If there is no subsequent improvement, they should notify the individual in writing (copy to the instructor) that he/she is no longer with the team. The fired student should meet with his/her instructor to discuss options. Similarly, students who are consistently doing all the work for their team may issue a warning memo that they will quit unless they start getting cooperation, and a second memo quitting the team if the cooperation is not forthcoming. Students who get fired or quit must find a team willing to accept them as member. As you will find out, group work isn't always easy – team members sometimes cannot prepare or attend group sessions because of other responsibilities, and conflicts often result from differing skill levels and work ethics. When teams work and communicate well the benefits more than compensate for the difficulties. One way to improve the chances that a team will work well is to agree beforehand on what everyone on the team expects from everyone else.

Academic Integrity

Homework assignments are expected to be the sole effort of the student(s) submitting the work. Students are expected to follow the Code of Student Academic Responsibility. Every instance of a suspected violation will be reported. Students found guilty of violations of the Code will receive the grade of F for the course in addition to whatever disciplinary sanctions are applied. **Your source code submission will be checked against plagiarism.**

The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from Disability Services early in the semester. For more information on accommodations, contact the Office of Disability Services at 704-687-0040 or visit their office in Fretwell 230.