MIS 6357: Advanced Business Analytics with R

Fridays, 4:00pm - 6:45pm, JSOM 1.217

Brian Lois

???@utdallas.edu
Office Location
Office Hours: After class

Course Description: Place the course description here. Place the course description here. Place the course description here. Place the course description here. Place the course description here. Place the course description here. Place the course description here. Place the course description here. Place the course description here. Place the course description here. Place the course description here. Place the course description here. Place the course description here. Place the course description here.
Prerequisite: MIS 6356
Credit Hours: 3

Text(s): *Applied Predictive Modeling*
Author(s): Max Kuhn and Kjell Johnson; **ISBN:** 978-1-4614-6848-6

Grade Distribution:

Homework	30%
Quizzes	10%
Exam 1	20%
Exam 2	20%
Final Project	20%

Course Policies:

- **General**
  - Computers are not to be used unless instructed to do so.
  - Quizzes and exams are closed book, closed notes.
  - **No makeup quizzes or exams will be given.**
- **Labs and Assignments**
  - Students are expected to work independently. **Offering** and **accepting** solutions from others is an act of **plagiarism**, which is a serious offense and **all involved parties will be penalized according to the Academic Honesty Policy**. Discussion amongst students is encouraged, but when in doubt, direct your questions to the professor, tutor, or lab assistant.

  - **No late assignments will be accepted**.

- **Attendance and Absences**
  - Attendance is expected.
  - You are responsible for any announcements

Tentative Course Outline:
The weekly coverage might change as it depends on the progress of the class. However, you must keep up with the reading assignments.

Week	Content
Week 1	• Introduction to R
Week 2	• Introduction to modeling • Data pre-processing • Reading assignment: Ch. 2-3
Week 3	• Over fitting and tuning • Reading assignment: Ch. 4
Week 4	• Measuring model performance • Reading assignment: Ch. 5 and 11
Weeks 5-6	• Linear models • Reading assignment: Ch. 6 and 12
Weeks 7-9	• Non-linear models • Reading assignment: Ch. 7 and 13
Weeks 10-11	• Tree based models • Reading assignment: Ch. 8 and 14
Week 12	• Class imbalance • Reading assignment: Ch. 16
Week 13	• Feature Importance and Selection • Reading assignment: Chs. 18 and 19