

UNIVERSITY OF
LOUISVILLE[®]

COLLEGE OF BUSINESS

AI ANLY 615-50/55 Spring 2021
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Instructor	Jeff Guan
Contact information	Office: 380 College of Business Telephone: 502-852-7154 Fax: 502-852-4799 Email: jeff.guan@louisville.edu
Office hours	By appointment

II. Course Information	
Online	Week 1 March 15—March 21 Week 2 March 22—March 28 Week 3 March 29—April 4 Week 4 April 5 —April 11 Week 5 April 12 —April 18
Required texts	Materials to be provided by instructor. See the Week 1 folder on Blackboard.
Course Description	This course introduces the fundamental concepts, techniques, technologies, and practices of data mining. Hands-on experiences in design and implementation are provided in meaningful business contexts. In addition you will be introduced to a leading data mining tool such as SAS Enterprise Miner. Homework is expected each week. Such work will build on the concepts and skills introduced in class videos and text materials. Your assignments will be finished in SAS Enterprise Miner 14.1.
Prerequisites	
Learning Objectives	<ul style="list-style-type: none"> • Provide an introduction to artificial intelligence. • Introduce the fundamentals in predictive modeling in a machine learning context. • Introduce basic techniques in data preparation, variable selection, and variable transformation. • Introduce several basic predictive modeling algorithms such as decision tree and neural network. • Introduce predictive modeling using unstructured data such as text.

	<ul style="list-style-type: none"> • Provide exposure to a leading data mining tool such as SAS Enterprise Miner.
Learning Outcomes	<ul style="list-style-type: none"> • You will understand the relevance and role of predictive modeling using AI algorithms in a business context. • You will be able to understand the process of creating a typical predictive model. • You will be able to contribute to the analysis and design of a reasonably complex predictive model for a practical business problem. • You will be able to interpret the output of a predictive model.
Final drop	Please contact the MBA Office

III. Evaluation		
Grading scale	97.0 - 100.0 : A+ 93.0 - 96.9 : A 90.0 - 92.9 : A- 87.0 - 89.9 : B+ 83.0 - 86.9 : B 80.0 - 82.9 : B- 77.0 - 79.9 : C+ 73.0 - 76.9 : C 70.0 - 72.9 : C- 00.0 - 69.9 : F	
Grading scheme	<i>Grading component</i>	<i>Weighted grading percentage</i>
	Individual Assignments	100%

IV. Schedule	
Week	Topic
1	<ul style="list-style-type: none"> • Introduction to Ai • Introduction to SAS Enterprise Miner 14.1 • Chapters 1 and 2
2	<ul style="list-style-type: none"> • Decision Tree : Chapter 3
3	<ul style="list-style-type: none"> • Regression Modeling : Chapter 4
4	<ul style="list-style-type: none"> • Neural Network : Chapter 5
5	<ul style="list-style-type: none"> • Model Assessment: chapter 6
Changes in the syllabus	Syllabus is subject to change. In particular the order in which topics are presented may change.

V1. Student Responsibilities / College and University Issues	
University of Louisville student conduct and responsibilities	<p>This course will abide by University of Louisville student conduct and responsibilities with regards to ethics and related issues:</p> <p>http://louisville.edu/dos/students/policies-procedures/student-handbook.html#codeofstudentconduct</p>
College of Business student conduct and responsibilities	<p>This course will abide by College of Business student conduct and responsibilities with regards to ethics and related issues:</p> <p>http://business.louisville.edu/students/college-of-business-academic-dishonesty-policy</p>
Religious holiday conflict policy	http://louisville.edu/diversity/resources/work-restricted-holy-day-policies-calendar.html
University policy on equal access	http://louisville.edu/disability/policies-procedures
<u>Title IX/Clery Act Notification</u>	<p>Sexual misconduct (including sexual harassment, sexual assault, and any other nonconsensual behavior of a sexual nature) and sex discrimination violate University policies. Students experiencing such behavior may obtain confidential support from the PEACC Program (852-2663), Counseling Center (852-6585), and Campus Health Services (852-6479). To report sexual misconduct or sex discrimination, contact the Dean of Students (852-5787) or University of Louisville Police (852-6111).</p> <p>Disclosure to University faculty or instructors of sexual misconduct, domestic violence, dating violence, or sex discrimination occurring on campus, in a University-sponsored program, or involving a campus visitor or University student or employee (whether current or former) is not confidential under Title IX. Faculty and instructors must forward such reports, including names and circumstances, to the University's Title IX officer.</p> <p>For more information, see the Sexual Misconduct Resource Guide (http://louisville.edu/hr/employeerelations/sexual-misconduct-brochure).</p>