Course Description
Creating value from business data by converting it into meaningful and useful information for business decision making by using current industry business intelligence (BI) and business analytics (BA) tools and technologies.

Class Time
This class is offered asynchronously online. While you control when you watch videos and work on assignments, be aware of course pacing and specific deadlines.

Instructor Information
Dr. Robert P. Schumaker
Professor, Computer Science Dept.
rschumaker@uttyler.edu

Office Hours
Slack (preferred), Zoom, email

If your inquiry is grade-related, please make a Zoom or physical appointment

Textbook Information
Data Mining and Business Analytics with R (Ledolter)
ISBN: 978-1-118-44714-7

Course Objective
This course is designed with the following goals:
- Identify the appropriate analytical tool based on the problem type and characteristics
- Properly conduct a collection and analysis of big-data
- Relate the tools learned to appropriate classes of problems
- Analyze a variety of business datasets for non-trivial patterns
- Predict future trends based on historical data
- Interpret results and appropriately explain them to business managers

Computer Account Access
Students will need a Patriot account and password for computer access. This information can be found at `https://www.uttyler.edu/ccs`

Course Documents and Slides
This class will use Canvas for course documents, slides, quizzes and other class-related materials. Students are encouraged to check the website frequently during the course of the semester to keep up to date about course activity.

Course Grading

Course evaluation will be based on the following:

Homeworks (5 @ 20 points)	100
Total Points	100

Grading Scale

A 85.0 points or more
B 70.0 to 84.999 points
C 55.0 to 69.999 points
D 40.0 to 54.999 points
F 39.999 points or less

Tentative Course Schedule and Assignments

Date	Concept	Readings	Assignments
Jun 23-29	Introduction to Business Intelligence		
	A Data Science Overview		
Jun 30-Jul 6	Basic Statistics Overview		
	Introduction to R	Ch 1-2	
Jul 7-13	Linear Regression	Ch 3	Homework 1
	Polynomial and Linear Regression	Ch 4	
Jul 14-20	Measures of Correlation		Homework 2
	Analysis of Variance (ANOVA)		
Jul 21-27	Logistic Regression and Binary Classification	Ch 7-8	Homework 3
	Time-Series Analysis		
Jul 28-Aug 3	Clean and Analyze Data	Ch 5-6	Homework 4
	Data Visualization		
Aug 4-9	Optimization and Linear Programming		Homework 5
	LP Exercises		