Fall 9-2015

BMIS 326.01: Introduction to Data Analytics

Jason H. Triche
University of Montana - Missoula, jason.triche@umontana.edu

BMIS 326
Introduction to Data Analytics
Fall 2015

UNIVERSITY OF MONTANA
School of Business Administration

Instructor Information

Professor: Dr. Jason Triche
E-mail: jason.triche@business.umt.edu (best way to reach me)
Office Phone: 243-6272
Office: GBB 314
Office Hours: T, Th 12:30 – 2:00 pm or by appointment

Course Information

Meeting Place GBB 213
Meeting Time 2:10 – 3:30 T, Th

This course is a 3-credit hour, full-semester offering covering data analytics. This course introduces the terminology and application of big data and data analytics. Students will complete cases in a variety of disciplines as they become acquainted with some of the software, tools, and techniques of data analytics. There is no textbook for the class. I will use current and relevant content from highly regarded publications and textbooks in the field. I will post all content on Moodle.

Prereq: STAT 216

Grading Evaluation

Criterion	Weight
Exam 1	20%
Exam 2	20%
Homework	20%
Python Code Academy	10%
Project	25%
Class Participation	5%

Letter grades will be based on the following scale:

A	93% and above
A-	90% to 92%
B+	87% to 89%
B	83% to 86%
B-	80% to 82%
C+	77% to 79%
C	73% to 76%
C-	70% to 72%
D+	67% to 69%
D	63% to 66%
D-	60% to 62%
F	Below 60%

Expected Learning Objectives and Assessment

Students will:

- Understand the terminology used in the Big Data field of study.
- Explore the applications of Big Data in a variety of disciplines.
- Use, at an introductory level, data analytics tools.
- Explain the story told by the output of the data analyses.
- Discuss the issues of privacy and ethics raised by the use of Big Data tools.

Assignments

Homework

Homework will assigned throughout the semester. Homework can be done individually or in groups. If done in groups, make sure everyone in the group understands each question and/or task.

Python Code Academy

Given the time constraints of the class, each student is responsible for completing the Python assignment in Code Academy. Each student should register for a free account at Code Academy and select the Python course. After completion of each assignment, you will receive an email from Code Academy. Please forward the completion email to the following email address (bmis326codeacademy@gmail.com) to get credit for the assignment. The due date for this is listed below in the course calendar.

Exams

The exams will be combination of multiple choice, short answer, and essay questions covering the content discussed in class, homework, readings from Moodle, and in-class exercises.

Project

There will be a project assigned which will utilize the material and technologies covered in class. The project will be completed in cross-disciplinary teams assigned by the instructor.

Policies

Academic Honesty

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. The University of Montana Student Conduct Code specifies definitions and adjudication processes for academic misconduct and states, "Students at the University of Montana are expected to practice academic honesty at all times." (Section V.A., available at http://www.umt.edu/vpsa/policies/student_conduct.php). All students need to be familiar with the Student Conduct Code. It is the student's responsibility to be familiar the Student Conduct Code. SoBA Professional Conduct. (link: http://www.business.umt.edu/Soba/SoBAEthics/CodeofProfessionalConduct.aspx)

Makeup Exams

Makeup Exams must be approved prior to missing the exam. No makeup exams will be allowed if the absence is not pre-approved.

Disability Services for Students
The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommason Center 154 or 406.243.2243. I will work with you and Disability Services to provide an appropriate modification.

Mission Statements and Assurance of Learning
The University of Montana's School of Business Administration enhances lives and benefits society by providing a world-class business education in a supportive, collegial environment.

We accomplish this mission by acting on our shared core values of creating significant experiences, building relationships, teaching and researching relevant topics, behaving ethically, and inspiring individuals to thrive.

As part of our assessment process and assurance-of-learning standards, the School of Business Administration has adopted the following learning goals for our undergraduate students:

Learning Goal 1: SoBA graduates will possess fundamental business knowledge.
Learning Goal 2: SoBA graduates will be able to integrate business knowledge.
Learning Goal 3: SoBA graduates will be effective communicators.
Learning Goal 4: SoBA graduates will possess problem solving skills.
Learning Goal 5: SoBA graduates will have an ethical awareness.
Learning Goal 6: SoBA graduates will be proficient users of technology.
Learning Goal 7: SoBA graduates will understand the global business environment in which they operate.

Schedule

Sept 1	Course Overview	
Sept 3	Introduction to Big Data, Data Analytics, and Business Intelligence	
Sept 8	Excel and Python	
Sept 10	Exploring Data	
Sept 15	Exploring Data	
Sept 17	Descriptive Statistical Measures	
Sept 22	Data Modeling	
Sept 24	Data Modeling	
Sept 29	**Exam 1**	**Python Code Academy Due**
Oct 1	Introduction to SPSS	
Oct 6	Decision Trees	
Oct 8	Multiple Regression	
Oct 13	Multiple Regression	
Oct 15	Data Mining	
Oct 20	Data Mining	
Oct 22	Cluster Analysis	
Oct 27	Cluster Analysis	
Oct 29	**Exam 2**	
Nov 3	Data Visualization	
Nov 5	Data Visualization	
Nov 10	Prescriptive Modeling	
Nov 12	Prescriptive Modeling	
Nov 17	Other Data Analytics Technologies	
Nov 19	Other Data Analytics Technologies	
Nov 24	Work on Projects	
Nov 26	Thanksgiving	
Dec 1	Work on Projects	
Dec 3	Project Presentations	
Dec 8	Project Presentations	
Dec 10	Project Presentations	Project Due Fri, 12/11 at noon

I will announce all changes to the schedule in class and on Moodle.