BMIS 601
Business Intelligence
Spring 2021

Course Description

The course provides graduate students with the foundational knowledge necessary to transform big data into useful business intelligence. Students get the skills, tools, and techniques required to collect, synthesize, and distribute information to support intelligent decision-making at the managerial level.

Prereq: BMIS 326, and graduate standing.

Textbooks/Materials (required)

1. Kahneman, D. (2011). **Thinking**, **fast and slow**. New York: Farrar, Straus and Giroux.

2. Course packet from Harvard Business Publishing.

Grading Evaluation

Criterion	Weight
Project	40%
Participation	10%
Homework	30%
Current Technology/Process Debriefing	15%
Quizzes	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%

Grading Criteria:

Project

There will be a project assigned which will utilize the material and technologies covered in class.

Participation

This course will work best if everyone participates in the course discussion based on the readings, simulation, and case studies. Grading participation is completely under the discretion of the instructor. Students are expected to complete the assigned readings and applications as scheduled. Preparing before the class period will assist in learning, and help contribute to class discussions. While Zoom and the class recordings provide convenience and flexibility, I strongly recommend everyone attend as many synchronous Zoom classes as possible. Three hours is a long time to lecture so I will have plenty of hands-on activities.

Homework

Homework will be assigned throughout the semester. Some homework will be individual and some homework can be completed in groups. I will specify individual or possible group on each assignment. If done in groups, make sure everyone in the group understands each question and/or task. This will help tremendously on exams. All homework is due as specified in Moodle. *****No late assignments will be accepted and they will be assigned a score of zero (0).*****

Current Technology/Process Debriefing

Each student will choose from a pre-defined list a current technology or process used in the field of data analytics/business intelligence. Each student will study that technology or process in detail and provide a 20 minute presentation to the class on this technology. Imagine you are a data scientist and your boss (i.e., me) asked you to research this technology and present it to the team. This will help us learn as many topics and current technologies in this every changing field. I will have a signup sheet for topics and dates on Moodle.

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)

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 Lommasson Center 154 or 406.243.2243. I will work with you and Disability Services to provide an appropriate modification.

Mission Statement and Assurance of Learning

The MS in Business Analytics prepares graduates for successful careers working with data across a wide range of organizations. Students build a strong foundation at the intersection of business, statistics, and computing. In addition to a firm grounding in analytical techniques and applications, students gain the ability to effectively communicate and use the results of data analytics for innovative solutions to catalyze business growth. Graduates are deeply engaged with the private and public sector, acquiring relevant skills to provide immediate value to employers.

The MS in Business Analytics graduates will possess:

Learning Goal 1: *Knowledge*. A deep understanding of a wide range of analytical techniques and programing tools for both structured and unstructured (e.g., text, sentiment) data.

Learning Goal 2: *Application*. The ability to apply appropriate analytical techniques to solve a wide variety of business/organizational problems.

Learning Goal 3: *Communication/Story Telling*. The ability to effectively: (a) communicate data analytics results and translate these into effective business decision making inputs; (b) use data visualization techniques to illustrate results and implications; and (c) write an impactful narrative supporting key insights and implications from an analysis.

Learning Goal 4: *Ethics/Data Stewardship*. The ability to act as effective data stewards, applying governance techniques to secure data, to develop and promote policies for using data in an ethical manner, to respect data privacy considerations, and to enforce data compliance.

Learning Goal 5: *Innovation*. The ability to innovate beyond providing answers to existing questions and solutions to known problems by harnessing data analytics to identify new sources of value, to see patterns and anomalies, and to reveal new insights.

Tentative Schedule

Date	**Topic**	**Readings prior to class**
1/14	Decision Making	Kahneman Chapters 1-5
1/21	Decision Making	Kahneman Chapters 6-9
1/28	Data Warehousing	Kahenman Chapters 10-13
2/4	Data Warehousing	Kahenman Chapters 14-16
2/11	Data Warehousing	Kahenman Chapters 17-18
2/18	Forecasting Methods	Kahenman Chapters 19-22
2/25	Dashboards	Kahenman Chapters 23-24
3/4	No Class	
3/11	Dashboards	Kahenman Chapters 25-28
3/18	Data Analytics Simulation (HBR)	HBR – Introduction to the Simulation
3/25	Case Study: Dark Side of Customer	Case Study: Dark Side of

	Analytics (HBR)	Customer Analytics (HBR)
4/1	Prescriptive Analytics	Kahenman Chapters 29-32
4/8	Introduce Project Working Session	
4/15	Simulation Data Privacy Laws	
4/22	Project Presentations	

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