Master Course Syllabus

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: https://catalog.uvu.edu/

Semester: Spring
Year: 2025
Course Prefix: MGMT
Course and Section #: 2400-004
Course Title: Data Analytics for Business
Credits: 3

Course Description

Introduces the field of data analytics in business. Introduces the software, languages, and hardware used in data analytics. It uses common analytical tasks such as clustering, classifying, and predicting outcomes, along with common algorithms in data analytics, such as regression, decision trees, and neural networks. Discusses the legal, ethical, and privacy issues inherent in big data projects. Includes hands-on experience with data extraction, data analysis, and interpretation.

Course Attributes

This course has the following attributes:

☐ General Education Requirements
☐ Global/Intercultural Graduation Requirements
☐ Writing Enriched Graduation Requirements
☒ Discipline Core Requirements in Program
☐ Elective Core Requirements in Program
☐ Open Elective

Other: *Click here to enter text.*

Instructor Information

Instructor Name: Andrew Moleff Dean's Executive in Residence

Student Learning Outcomes

We will also focus on five key areas for assessment Writing ability (final term project and assignment), Oral Presentation Skill (group presentation), General Business Knowledge (readings, quizzes, and exams), Quantitative Ability (homework assignments, certification, and exams), and Critical Thinking Ability (midterm and final projects). The specific objectives include that students will be able to: Ask relevant data-driven questions. Apply current business intelligence and data visualization tools to answer relevant questions. Analyze large data sets to identify key variables. Present meaningful visualization of key data variables. Earn their Excel Expert Certification Earn acceptable scores on leading industry data visualization software package accrediting exam(s).

Course Materials and Texts

1. Textbook "Data Analytics for Business" by Andrew J. Moleff (provided) 2. A desktop computer or laptop is needed and required for this course.

Course Requirements

Course Assignments, Assessments, and Grading Policy
Grading Weight Excel / Spreadsheet Assignments** 30% Assignments / Discussions 7.5% Tableau Assignments 28% Reading Quizzes 7.5% Final Project and Exam 12% Excel Certification. 15% Extra Credit Opportunities SRI and Other Extra Credit 2 - 5% ** HOMEWORK counts for the largest percentage of your grade. Please do not get behind 😱 Grading Policy A 94% and above A- 90%-93.99% B+ 87%-89.99% B 83%-86.99%B- 80%-82.99% C+77%-79.99% C 73%-76.99% C- 70%-72.99% D+ 67%-69.99% D 63%-66.99% D- 60%-62.99% E 0% - 59.99%

Required or Recommended Reading Assignments
Chapter 1: What is Data?
Students will learn the definitions of data, information, and knowledge, explore the significance of business intelligence, and understand the concepts of big data and its applications in analytics.
Chapter 2: Data Management
This chapter introduces data management principles, data wrangling, and relational databases, focusing on how to structure and manipulate data for effective analysis.
Chapter 3: Data Generation, Collection, and Use
Students will examine methods of primary and secondary data collection, explore qualitative and quantitative research, and understand the importance of data-driven decision-making.
Chapter 4: Internet of Things (IoT) and Artificial Intelligence (AI)
The chapter discusses IoT's history, ecosystem, and applications, along with AI's role in enhancing IoT efficiency and its applications in data analytics.
Chapter 5: Data Mining and Regression
This chapter covers data mining techniques for identifying patterns and relationships, introduces regression analysis, and highlights the distinction between correlation and causation.
Chapter 6: How to Get Started with Data Analytics
Students will learn to approach analytics with clear objectives, use data visualization to present findings, and leverage tools like Excel and Tableau to draw actionable insights.
Chapter 7: Data Visualizations
This chapter focuses on creating effective data visualizations using tools like Excel and Tableau, emphasizing their advantages and limitations in business contexts.
Chapter 8: Chart Types and Uses
Students will explore various chart types, learn best practices for chart selection, and understand how to create impactful dashboards for business decisions.
Chapter 9: Ethical Considerations in Data Analytics
The chapter addresses the ethical challenges in data collection and usage, highlighting regulations, business responsibilities, and the importance of transparency.
Chapter 10: Truth and Accuracy in Data
Students will delve into the principles of truth and accuracy in data, the consequences of data manipulation, and best practices for ethical data handling.

General Description of the Subject Matter of Each Lecture or Discussion
 A1: LinkedIn (https://uvu.instructure.com/courses/602427/assignments/8017829) due by 11:59pm A2: YouTube (https://uvu.instructure.com/courses/602427/assignments/8017830) due by 11:59pm Assignment Instructions and Quiz (https://uvu.instructure.com/courses/602427/assignments/8017821) due by 11:59pm D2: I learn best by ...

(https://uvu.instructure.com/courses/602427/assignments/8017823) due by 11:59pm Q1. Syllabus and Instructions (https://uvu.instructure.com/courses/602427/assignments/8017801) due by 11:59pm Q2. Microsft Excel Desktop (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017798) due by 11:59pm 12/27 Date Details Due S1 - Excel - Getting Up To Speed (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017846) due by 11:59pm S1 - Getting Up to Speed in Excel (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017792) due by 11:59pm Basic Functions in Excel (Formulas and Functions) to do: 11:59pm Excel - Tabs and Ribbons Explained to do: 11:59pm Keyboard Shortcuts (Mac & PC) for Excel to do: 11:59pm Microsoft - Link to all the formulas/functions in Excel to do: 11:59pm Textbook: "Data Analytics for Business" to do: 11:59pm Why Learn Excel & Overview to do: 11:59pm Sun Jan 19, 2025 Quiz: Chapter 1 - What is Data? (https://uvu.instructure.com/courses/602427/assignments/8017807) due by 11:59pm 1/2/25, 2:40 PM Syllabus for MGMT-2400-003 | 2025 Spring - Full Term https://uvu.instructure.com/courses/602427/assignments/syllabus 13/27 1/2/25, 2:40 PM Syllabus for MGMT-2400-003 | 2025 Spring - Full Term Date Details Due S2 - Class Roster (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017853) due by 11:59pm S2 - Class Roster (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017810) due by 11:59pm S3 - Apple Assignment (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017854) due by 11:59pm S3 - Apple Product Sales (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017804) due by 11:59pm Sun Jan 26, 2025 D4 - How are Analytics Changing the NBA (https://uvu.instructure.com/courses/602427/assignments/8017825) due by 11:59pm Quiz: Chapter 2 - Data Management (https://uvu.instructure.com/courses/602427/assignments/8017811) due by 11:59pm S4: Employee Sample Data (File Upload) (On your own) (https://uvu.instructure.com/courses/602427/assignments/8017855) due by 11:59pm https://uvu.instructure.com/courses/602427/assignments/syllabus 14/27 1/2/25, 2:40 PM Syllabus for MGMT-2400-003 | 2025 Spring - Full Term Date Details Due S4: Employee Sample Data (Quiz) (On your own) (https://uvu.instructure.com/courses/602427/assignments/8017800) due by 11:59pm S5 - Fortune 500 (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017856) due by 11:59pm S5 - Fortune 500 Companies (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017820) due by 11:59pm Sun Feb 2, 2025 A3: What is data analytics? (Paper Upload) (https://uvu.instructure.com/courses/602427/assignments/8017831) due by 11:59pm Quiz: Chapter 3 - Data Generation, Collection, and Use (https://uvu.instructure.com/courses/602427/assignments/8017815) due by 11:59pm S6 - Dec Statistics - Class Roster (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017857) due by 11:59pm https://uvu.instructure.com/courses/602427/assignments/syllabus 15/27 Date Details Due S6 - Desc Statistics - Class Roster (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017797) due by 11:59pm S7 - Superstore Sales Data (Quiz) (On your own) (https://uvu.instructure.com/courses/602427/assignments/8017791) due by 11:59pm S7: Superstore Sales Data (File Upload) (On your own) (https://uvu.instructure.com/courses/602427/assignments/8017858) due by 11:59pm Correlation Video (S7) to do: 11:59pm Sun Feb 9, 2025 A4: Ethics in Bid Data - Universities Tracking Students (Reading & Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017816) due by 11:59pm Quiz: Chapter 4 - The Internet of Things (https://uvu.instructure.com/courses/602427/assignments/8017822) due by 11:59pm S8 - Progressive Auto Insurance CAGR (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017799) due by 11:59pm 1/2/25, 2:40 PM Syllabus for MGMT-2400-003 | 2025 Spring - Full Term

https://uvu.instructure.com/courses/602427/assignments/syllabus 16/27 Date Details Due S8: Progressive Insurance CAGR (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017859) due by 11:59pm S9 - Correlation & Regression (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017860) due by 11:59pm S9 - Correlation & Simple Regression (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017808) due by 11:59pm Sun Feb 16, 2025 D5 - Ethics in Big Data - Universities tracking students, when does it cross the line. (Discussion Question) (https://uvu.instructure.com/courses/602427/assignments/8017826) due by 11:59pm Quiz: Chapter 5 - Data Mining (https://uvu.instructure.com/courses/602427/assignments/8017795) due by 11:59pm S10: CAGR, Correlation, Regression & Forecasting (File Upload) (On your own) (https://uvu.instructure.com/courses/602427/assignments/8017847) due by 11:59pm S10: CAGR, Correlation, Regression, & Forecasting (Quiz) (On your own) due by 11:59pm 1/2/25, 2:40 PM Syllabus for MGMT-2400-003 | 2025 Spring - Full Term https://uvu.instructure.com/courses/602427/assignments/syllabus 17/27 1/2/25, 2:40 PM Syllabus for MGMT-2400-003 | 2025 Spring - Full Term Date Details Due (https://uvu.instructure.com/courses/602427/assignments/8017812) S11 - Goal Seek (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017848) due by 11:59pm S11 - Goal Seek (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017813) due by 11:59pm A5: Ethics in Big Data - Universities tracking students, when does it cross the line? (Paper - Upload) (https://uvu.instructure.com/courses/602427/assignments/8017832) due by 11:59pm Sun Feb 23, 2025 Extra Credit - Pivot Tables 2 (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017840) due by 11:59pm Extra Credit - Pivot Table 2 (Instructions NO Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017841) due by 11:59pm Quiz: Chapter 6 - How to Get Started with Data Analytics (https://uvu.instructure.com/courses/602427/assignments/8017809) due by 11:59pm https://uvu.instructure.com/courses/602427/assignments/syllabus 18/27 1/2/25, 2:40 PM Syllabus for MGMT-2400-003 | 2025 Spring - Full Term Date Details Due S12 - Pivot Tables - Apple Sales (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017849) due by 11:59pm S12 - Pivot Tables - Using Apple Sales Data (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017803) due by 11:59pm S13 Goal Seek & Pivot Tables (Quiz) (On your own) (https://uvu.instructure.com/courses/602427/assignments/8017819) due by 11:59pm S13: Goal Seek & Pivot Tables (File Upload) (On your own) (https://uvu.instructure.com/courses/602427/assignments/8017850) due by 11:59pm Charts 1: Joe's Coffee House (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017835) Tue Feb 25, 2025 due by 11:59pm Charts 2: Hot Chocolate City (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017836) due by 11:59pm https://uvu.instructure.com/courses/602427/assignments/syllabus 19/27 Date Details Due Sun Mar 2, 2025 Quiz: Chapter 7 - Data Visualizations (https://uvu.instructure.com/courses/602427/assignments/8017814) due by 11:59pm S14 - Pivot Tables & Dashboard (File Upload) (https://uvu.instructure.com/courses/602427/assignments/8017851) due by 11:59pm S14 - Pivot Tables & Dashboard (Quiz) (https://uvu.instructure.com/courses/602427/assignments/8017794) due by 11:59pm S15: Excel Dashboard - Cool Call Center (File Upload) (On your own) (https://uvu.instructure.com/courses/602427/assignments/8017852) due by 11:59pm S15: Excel Dashboard - Cool Call Center (Quiz) (On your own) (https://uvu.instructure.com/courses/602427/assignments/8017793) due by 11:59pm Sun Mar 9, 2025 Downloading and Installing Tableau Video Instructions to do: 11:59pm FINAL PROJECT

Required Course Syllabus Statements

Generative AI
This course encourages students to explore and utilize emerging tools, including artificial intelligence (AI), to enhance their learning and practical skills. However, appropriate and ethical use of AI tools is essential to maintain academic integrity.

Permitted Use of AI Tools:

- You are encouraged to use AI tools to assist with technical assignments, such as Excel and Tableau projects, where applicable.
- AI can be used to generate insights, automate repetitive tasks, or troubleshoot challenges in data analysis, provided it aligns with the specific instructions of the assignment.

Prohibited Use of AI Tools:

- AI tools, including chatbots, text generators, paraphrasers, and summarizers, **may not be used** for writing assignments unless explicitly permitted in the assignment instructions.
- The use of AI to produce or assist with any written content for assignments where it is prohibited will be considered academic dishonesty.

Using Remote Testing Software
☐ This course does not use remote testing software.

☐ This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

Required University Syllabus Statements

Accommodations/Students with Disabilities
Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU Accessibility Services at accessibilityservices@uvu.edu or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at DHHservices@uvu.edu

DHH is located on the Orem Campus in BA 112.

Academic Integrity
At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their rights and responsibilities. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in UVU Policy 541: *Student Code of Conduct*.

Equity and Title IX
Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – TitleIX@uvu.edu – 800 W University Pkwy, Orem, 84058, Suite BA 203.

Religious Accommodation
UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.
To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at accessibilityservices@uvu.edu. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a specially dedicated space for meditation, prayer, reflection, or other forms of religious expression.