**Course Syllabus – FALL 2024**

**ISOM 442: Business Data Visualization (3 Credits)**



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| **Section#** | **Days** | **Time** | **Floor** | **Part** | **Room#** | **Faculty Name** |
| 01A | 24 | 9:30 – 10:45pm | 02 | D2 | 1005 | Ali Dashti |
| Lab | 3 | 6:00 – 7:50PM | 2 | MIS | Labs | Nouf Al Oraifan |

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| *Tutorial:* Self-learning using the online Training of Kuwait University (Web: https://onlinetrain.ku.edu.kw). Student will study by themselves courses related to business data visualization using Tableau, then perform lab quizzes. |
| **Any questions or comments contact** [**ali.dashti@ku.edu.kw**](mailto:ali.dashti@ku.edu.kw)  **You MUST purchase the book from Apress**  <https://link.springer.com/book/10.1007/978-1-4842-1934-8>  **Midterm Exam Oct 14th, 2024 during class time**  **Final Exam Jan 5th, 2025 11:00 AM – 1:00 pm** |

**Coordinator Information:**

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| *Moodle and MS Teams:* | **442-BUSINESS DATA VISUALIZATION-A. DASHTI-Days:24-Time:9:30-FALL 2024/2025** |
| *Email:* | ali.dashti@ku.edu.kw |
| *Office:* | A2-1023 |
| *Office Hours:* | 135 11:00 – 12:00 (messages received after 5PM will be addressed the next business day) |

**Course Description**

This course will provide students with hands-on experience on using contemporary tools in data analysis and visualization. It is designed to walk students through the process of knowing the relevant requirements, collecting and cleaning the data, exploring and visualizing, and finally, analyzing and inference. This course will also introduce students to social network analysis (SNA) in various social media platforms. Students will learn the fundamental concepts of SNA and the use of SNA and other contemporary tools to manipulate, analyze, and visualize network data to create business insights

**Course Learning Objectives (CLOs):**

The learning outcomes for this course, listed below, relate to the learning goals of the College of Business Administration Undergraduate Program. Upon successful completion of the course, students will be able to:

1. Understand business data visualization, the innovative role it plays in nowadays organizations, and how and why it is used today for competitive advantage.
2. Understand how various types visualization provide business intelligence, support decision making, and enable competitive advantage. Students gain hands-on experience with Tableau on real life cases.
3. Evaluate the ethical concerns that visualization raises in business environment and the impact of on privacy and security.
4. Apply IT tools (e.g., Tableau) to evaluating IS related business strategies and identifying problems and opportunities amenable to innovative IS solutions.

**CLO Mapping to CBA Skill Based Competency Goals**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CLO |  | Competency Goal | | | |
| Analytical | Communication | Information Technology | Business Ethics | General Business Knowledge |
| 1 |  |  | I |  |  |
| 2 |  |  | A |  |  |
| 3 |  |  |  | R |  |
| 4 | I |  |  |  | I |

**Type of Emphases:**

* **(I)ntroduce:** Students will be introduced to the skill and their grasp of it assessed in the course.
* **(A)pply:** The course will not cover the skill. Students should have a high-level grasp of the skill and are required to apply it in the course.
* **(R)einforce:** Students should have an introductory-level grasp of the skill and the course will improve their mastery to a higher level.

**Course Content Delivery Strategy**

* Moodle (With Safe Exam Browser) for homework, video exercises, quizzes, Midterm and Final exams.
* Use of Power Point
* Hand notes
* Use of websites
* Use of commercial tools: MS Excel, Tableau
* Assignments and video exercises

**Required Material:**

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| **Textbook** |  | Arshad Khan. (2016) [Jumpstart Tableau](https://link.springer.com/book/10.1007/978-1-4842-1934-8): A Step-By-Step Guide to Better Data Visualization. Apress. <https://link.springer.com/book/10.1007/978-1-4842-1934-8> |
| **Tools to be used** |  | E-plagiarism system (Turnitin: www.turnitin.com); Cloud system (OneDrive of Microsoft) |
| **Prerequisites** |  | ISOM 340 |
| **Moodle Used** |  |  |
|  |  | Pay attention to the name of MOODLE website |

**More details are found on MOODLE website.**

**Course Outline**

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| --- | --- |
| **Chapter # Title** | **Chapter # Title** |
| Chapter 1: Log on to Tableau | Chapter 21: Customization for Quick Filters |
| Chapter 2: Connecting to Two Data Sources | Chapter 22: Quick Filters Single and Multiple Value Lists |
| Chapter 3: Exploring the Tableau Interface | Chapter 23: Quick Filter Sliders |
| Chapter 4: Developing a Simple Visualization | Chapter 24: Dependency in Quick Filters |
| Chapter 5: Saving Tableau Workbook and Tableau Packaged Workbook | Chapter 25: Saving in PDF Format |
| Chapter 6: Using Basic Analysis Functions | Chapter 26: Exporting an Image to PowerPoint |
| Chapter 7: Adding, Removing, and Renaming a Dimension | Chapter 27: Exporting Data |
| Chapter 8: Copying or Deleting a Worksheet | Chapter 28: Displaying Underlying Data |
| Chapter 9: Changing the Display from One Chart Type to Another | Chapter 29: Exporting Crosstab Data |
| Chapter 10: Using the Show Me Tool for Selecting a Visualization | Chapter 30: Formatting |
| Chapter 11: Crosstab Display and Swapping Resizing | Chapter 31: Highlighting with Colors |
| Chapter 12: Sorting | Chapter 32: Axis Formatting |
| Chapter 13: More About Sorting | Chapter 33: Formatting Tables |
| Chapter 14: View Details/Underlying Data | Chapter 34: Top N Function |
| Chapter 15: Grouping | Chapter 35: Trend Lines |
| Chapter 16: Building a Hierarchy | Chapter 36: Forecasting |
| Chapter 17: Aggregate Measures | Chapter 37: Creating a Dashboard |
| Chapter 18: Exclude and Keep | Chapter 38: Dashboard Quick Filters |
| Chapter 19: Filtering on the Filter Shelf | Chapter 39: Cascading Worksheet Changes in a Dashboard |
| Chapter 20: Quick Filters | Chapter 40: Working with Dashboard Content |

**Course Policies**

You are responsible for knowing the following policies (“I didn’t know” is NOT an excuse):

* Attendance and Participation:
  + Each student should turn silent his/her mobile at the beginning of class
  + Every student in this course must abide by the Kuwait University Policies (including ERT additions) on Attendance (published in the Student Guide, Chapter 3, Section 13). A copy of the student guide can be accessed online on: <http://kuweb.ku.edu.kw/ku/Students/References/index.htm>

<http://kuweb.ku.edu.kw/cs/groups/ku/documents/ku_content/kuw055940.pdf>

* + Be on time for the lecture (remember, class starts on time, NOT 5 minutes later). At the beginning of each lecture, I will take attendance, anyone coming after that time will be considered as absent.
  + Students must attend the classes they are enrolled in (i.e., no informal switching between sections for the same faculty member or between different faculty members).  The same is applied to taking quizzes, midterm, and final exams
* Absenteeism:
  + University regulations governing absenteeism are applied to all students. This involves a first warning after **3 hours (not lectures)**, a second warning after additional 3 hours absence and a failure notice for any absence beyond the six hours. Absence with a valid excuse will still count as an absence. But each student is allowed two absences (no questions asked), after that, each absence will be counted.
* Exams and Quizzes (**ONLINE on YOUR LAPTOP- NOT handheld devices**)
  + Make-up quizzes and exams: **No make up for quizzes**. Midterm and final exams will be executed according to plans. In case Moodle fails for uncontrolled reasons, the exam will be re-scheduled the next Saturday (after the initial plan date) and at the same timing. **If you have Covid (during Midterm/ Final Exam time), then submit documentation of PCR/ Civil ID to the Committee to decide on your case. For the Midterm, if your documentation is approved, you will be invited to complete a makeup (at a time set by the committee). For the Final, if your documentation is approved, an “I” (Incomplete) will appear in the KU portal and you will be invited to complete the makeup the first week of the following academic term**. You must inform your instructor and share the results of a PCR test at least 4-5 days before and exam to be eligible for a make-up.
  + **Moodle will be used with Safe Exam Browser. Make sure you access Moodle using Google Chrome**. **Safe Exam Browser** must be installed on laptop or desktop. Be sure to install **Safe Exam Browser** BEFORE the exam date by taking the compatibility test in Moodle (for technical help, please see your TA). **You are responsible for having a working computer (Systems Updates and Safe Exam Browser Updates) Fully Charged and with working Internet BEFORE THE EXAM.**
  + **Exams will NOT be administered using handheld devices like iPhone or iPad (even if it has worked in past exams)**. You need a laptop for the ENTIRE EXAM.
  + Anyone entering after half the time has passed for a quiz or an exam = no admittance.
  + Any academic dishonesty during the course or suspicious behavior during the exam will have consequences. A student can earn a ZERO in the assessment, an “F” in the course, and can be reported to Associate Dean of Student Affairs to take even more severe actions.
  + Every student in this course must abide by the Kuwait University Policy on Cheating and Plagiarism (published in the Student Guide, Chapter 3, Section 2; p. 22). A copy of the student guide can be accessed online on: <http://kuweb.ku.edu.kw/cs/groups/ku/documents/ku_content/kuw055940.pdf>
  + If you have **special needs** (e.g., any type of disability, pregnancy, diabetes, etc.), please make sure you inform the instructor (**within the FIRST WEEK of class**). You can also check with Associate Dean for Student Affairs office for other rights and duties.
  + **The instructor will NOT answer any questions during the exam including clarification questions. Furthermore, dictionary/translator use is prohibited during exams**.
* Grading:
  + There are **NO** collaborations in quizzes and exams - this will be considered **cheating**. Plagiarism will also be considered as cheating.
  + Late submission will not be accepted
  + You are responsible to upload the e-training certificates to Moodle, and before you click submit, download the same certificate on a different machine to view it. Instructors cannot be responsible for unsubmitted or corrupt files (students will receive a zero), and will not extend deadlines because of this issue.
  + Writing Style: Students must refer to APA writing style for their assignments and report writing. Refer to the English Language Center for help (For more details see http://www.easybib.com/guides/citation-guides/apa-format).
  + **After a grade is posted (quizzes, assignment, video exercises, midterm, … etc), you will have 1 week to discuss it with your instructor or teaching assistant (TA). After that, the grade is FINAL and released**.
  + For the final exam, the final grades will be posted after 12 hours
  + Negotiation of the final grade is neither accepted nor discussed.
  + There will be **no rounding up or down** once your grade is finalized (for example, 89.99% is B+ not A-). **In addition, there’s no department, section, or instructor curves**.
* Academic Dishonesty will not be tolerated. Cheating/ submitting work prepared by someone else/ resubmitting work from other courses/ plagiarism and the like will earn you an “F” grade in the course.
* Students are responsible to have working and up to date computer/ laptop and internet. Students are responsible for making sure their work is posted to the LMS: make sure the posting to the forum is uploaded fully, make sure files uploaded are not corrupt (download then upload the work and make sure it is readable) etc.
* Students are responsible for the content/ instructions etc. on LMS as well as emails. For example, your instructor will not remind you of due dates.
* Students are responsible for content of any social media groups setup. These are NOT monitored by your instructor.
* Recording (audio/ video) as well as still photography are strictly prohibited (in accordance with KU policies).
* Course policies may change with student behaviors
* Students should contact instructor by email (NOT MS Teams) within working hours and days. Students cannot contact instructors or TAs out of normal hours (e.g., 2am on Friday) to get help if they have a question or technical issue and will not get an extension for deadlines to solve technical problems.

**Grade distribution**

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| --- | --- |
| Range | Grade |
| >= 95% | A |
| 90%-94.99% | A- |
| 87%-89.99% | B+ |
| 83%-86.99% | B |
| 80%-82.99% | B- |
| 77%-79.99% | C+ |
| 73%-76.99% | C |
| 70%-72.99% | C- |
| 65%-69.99% | D+ |
| 60%-64.99% | D |
| <= 59.99 | F |

**Grade Distribution**

|  |  |  |
| --- | --- | --- |
| Category | % | Notes |
| Final Exam | 40% | *Jan 5th, 2025, between 11AM and 1PM. 2 Hrs exam.*  *Moodle announcement will state sections included and number/ types of questions. All questions are developed and reviewed by course committee (AUTHOR TESTBANK NOT USED FOR THIS EXAM).* |
| Midterm Exam | 20% | *Oct 14th , 2024, During class time*  *Moodle announcement will state sections included and number/ types of questions. All questions are developed and reviewed by course committee (AUTHOR TESTBANK NOT USED FOR THIS EXAM).* |
| video exercises | 10% | *You will watch videos related to data visualization using tableau by visiting* [*https://onlinetrain.ku.edu.kw*](https://onlinetrain.ku.edu.kw)*. The instructor will specify the videos needed on Moodle. Once completed, students are asked to upload the certificates (PDF files) in Moodle.* |
| Homework | 10% | *Submitted through Moodle using Tableau* |
| Quizzes | 10% | *Pop quizzes throughout the semester* |
| Kahoot | 10% | *Lecture participation grade* |
| Total | 100% | The Course Curve is set for 3% ONLY |

**Important Dates**

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| --- | --- |
| Item | Due Date |
| Midterm | 14/10/2024 |
| Last day of class | 26/10/2024 |
| Final Exam | 5/1/2025 |

***Note: your instructor will NOT remind you of the above dates.***

**FINALLY**

In general, your ideas, comments, suggestions, questions, grade challenges, etc. are welcome and encouraged, if you feel the need to share your thought. However, **No part of your grade will be based on anything other than your coursework and attendance**.

 If a student decides to bring a parent/uncles/aunts (relatives) or **anyone to discuss or change a grade, that student will automatically lose 10% of their total grade**. Keep in mind your grades are private and I have no right to disclose any information to another person. If a student decides to resort to nepotism, also known as Wasta, to request alteration of a grade the student will automatically lose 10% of their total grade.

 “I am a senior and I need an A in the class to graduate because my GPA is low” or “I need a B+ because I am on probation” this is your own doing you will get a B+ or an A only if you (EARN IT), the professor will not entertain such excuses. “Please reduce my grade to a C- so I can repeat the course” is also not entertained.

 I promise to give you RESPECT / FAIRNESS / and QUALITY in return I expect the same courtesy from you towards me and your fellow class matesn