BSAN 420/SCM 400 Data Visualization in Business

Fall 2025

Class Time: T/Th 9:30 – 10:45
Room: CAPF 3056B

INSTRUCTOR

Name: Detelina Stoyanova   Office: CAPF 3168

Email: dstoyanova@ku.edu   Office hours: Thursdays 2:00-3:00PM

TEACHING ASSISTANTS

	Email	Office Hours
Folake Ojo	folakemi.ojo@ku.edu	Mondays 12:30-1:30 PM
Fabrizio Eguez	fabrizio.eguez@ku.edu	Tuesdays 3:30-4:30 PM
Mauricio Lesme	mauriciolesme@ku.edu	Wednesdays 3:00-4:00 PM

COURSE HOURS AND INSTRUCTIONAL METHODS

This is a 3-credit-hour semester-long course, with two 75-minute in-person class sessions on Tuesdays and Thursdays at 9:30-10:45 pm in CAPF 3056B. For every credit hour students can expect to spend at least two hours per week in additional study and preparation.

This is an in-person class. Please do not request Zoom recordings.

COURSE DESCRIPTION

The ability to accurately and effectively analyze and communicate business data is paramount in today's world of business analytics and big data. Increasingly, professionals are being asked to use business data as a crucial component of everyday business decisions -- competitive advantage is gained in companies that can analyze and visualize data successfully to help them make business decisions. This course will focus on data visualization through applied, hands-on projects that will help students produce, analyze, and communicate data in a variety of business sectors. A principle focus of the course will be the use of data analysis programs and associated visualization techniques. Not open to students with credit in SCM 400 - Data Visualization. *Prerequisite: IST 310, BSAN 310, and BSAN 326.*

LEARNING OUTCOMES

After successful completion of this course, you will:

1. **Master the art of pairing the right chart with the right data**: Learn how to recognize different data types and create visuals that tell the most compelling and accurate stories.
2. **Design professional dashboards**: Discover the best practices for styling and formatting visuals that captivate and inform your audience.
3. **Gain hands-on expertise with cutting-edge BI tools**: Build practical skills in popular business intelligence and visualization platforms to stand out in your field.

COURSE MATERIALS

There is no textbook required for this course, but you will be expected to read the online documentation and explore several videos and tutorials.

The tools covered in the course are Tableau Desktop, Tableau Prep Builder, Tableau Public and Power BI Desktop.

GRADING

All grades will be posted on Canvas. You are strongly encouraged to check your scores on Canvas regularly. A final letter grade will be assigned based on your percentage score.

Activity	Percent of final grade
Quizzes	5
Data Camp Assignments	10
In-class exercises	20
Assignments	30
Midterm Exams	20 (10 each)
Final Exam or Tableau Desktop Specialist Certificate	15

GRADING SCALE

%	<60	60-66	67-69	70-72	73-76	77-79	80-82	83-86	87-89	90-94	95-100
Grade	F	D	D+	C-	C	C+	B-	B	B+	A-	A

ASSIGNMENTS

Assignments will be a regular component of this course and are designed as learning exercises to reinforce class discussions and build your proficiency with the tools. **Start early and revisit your work. I expect you to carefully edit your assignments before you submit**. All assignments should show your individual work. Late submissions will be accepted for up to five days past the deadline, with a 10% grade deduction for each day the assignment is late. The assignments are the largest portion of your final grade. Rushed, last-minute work will negatively impact your score.

IN-CLASS EXERCISES

About once a week you will need to submit your in-class work. The exercises are a great way to practice the new material and will allow you to ask questions. Each exercise will be worth 10 points. You can get 0, 1, 5, 8 or 10 points. You will get 0 points if you do not submit the; 1 point if you submit something that really misses the point; 5 points if it looks like you tried but it needs more work; 8 if you only made small mistakes and 10 if it's perfect. The two lowest grades will be dropped at the end of the semester. You can still submit an exercise even if you miss class, but you must do so before 5PM on the following day unless you have been granted an extension in advance.

SUBMITTING ASSIGNMENTS AND IN-CLASS EXERCISES

Each assignment will include detailed instructions on what to submit and how to submit it. Many assignments require submitting multiple files, so it is **your responsibility to carefully read and follow the instructions**.

Failure to follow submission instructions will result in one of the following outcomes:

1. **Minor submission errors**: A **5-point deduction** will be applied, and the assignment will be subject to the **late submission policy** (10% additional deduction per day).
2. **Major submission errors**: The assignment will receive a **grade of 0**, and **resubmission will not be allowed**.

Similarly, if an **in-class exercise** is not submitted correctly, you may receive either:

1. **A grade of 0**, or
2. **A penalty of 2 points**, plus an additional **10% deduction per day** if it is submitted late.

I reserve the right to determine whether a student will be permitted to resubmit any incorrectly submitted assignment or exercise.

MIDTERM EXAMS

There will be two midterm exams for a total of 20% of your final grade. They are multiple-choice exams similar to the Tableau Desktop Specialist exam (see below). The exams will assess your understanding of both the tools and the theory of data visualization.

FINAL EXAM

There will be a final exam for this course that is worth 15% of the final grade and will follow the same format as the midterm exams. You have the option to take my final exam or to pass the Tableau Desktop Specialist Exam. **If you successfully pass the certificate exam your final exam grade will be recorded as 100% and you will not need to take it**.

TABLEAU DESKTOP SPECIALIST CERIFICATE

Earning the Tableau Desktop Specialist Certificate should be your **primary goal for this class**. The exam is paid and proctored so it's optional, but I want to encourage you to try it. Students who do not wish to take it (or who do not pass) have the option to take my final exam instead. The EY Business Professional Development Program has graciously agreed to cover the registration fee (one time) for all students who wish to take it. In addition, 50 Points towards your graduation will be awarded to the students who pass the exam. To take advantage of the fee waiver and Points you need to be a Business School student.

DATACAMP

There are 4 Datacamp courses that are recommended for preparing for the certificate exam. To access these courses, you will need to join the Datacamp course page. Detailed instructions on how to join are posted on Canvas. The Datacamp assignments will account for 10% of your final grade.

QUIZZES

During the first few weeks we will discuss in detail the best practices for styling your visualizations. You will be expected to apply this knowledge throughout the entire semester. To support your learning, you will be required to watch a series of online videos. After each video, you will complete a Canvas quiz to assess your understanding. The quizzes are worth 5% of your final grade.

ATTENDANCE POLICY

Regular attendance is essential for success in this class, and I will take attendance at every session. If you miss class, it is your responsibility to catch up on the material and complete any missed exercises. If you have an emergency and need to miss a graded exercise **you can submit it before 5PM on the following day to receive credit.**

Based on my observations from previous semesters, students who do not attend class regularly tend to perform poorly and struggle to earn good grades. To encourage attendance, students who miss two or fewer classes will receive 2% extra credit toward their final grade. This extra credit policy applies regardless of the University Excused Absences policy (USRR 2.2.1). Please note that you can still achieve 100% in the class without attending every lecture, so no absences will be excused. **Additionally, two late arrivals will be counted as one missed class.**

ACADEMIC MISCONDUCT

All assignments and exercises must reflect your individual work. Using someone else's files or sharing your own work with others is strictly prohibited. In cases of plagiarism or another academic misconduct, all involved students will receive 0 points for the assignment or exercise. Additionally, I will report the incident to the Dean's Office, and if there is a record of previous violations, the penalty may be more severe. You are also prohibited from presenting online tutorials, dashboards, or other resources from external sources as your own work. Any such violation will be subject to the same procedure outlined above. Exceptions to this rule apply only to assignments that specifically require you to follow a provided tutorial.

USE OF LAPTOPS AND OTHER TECHNOLOGY DURING CLASS

You are required to bring your laptop to every class. However, laptops must remain closed unless you are actively working on an assigned exercise. During lectures and announcements, all laptops should remain closed, and you must refrain from using your phone or other devices. Failure to follow this policy will result in you being asked to leave the classroom and being marked as absent for that day

CLASS COMMUNICATION

We will use Canvas announcements and emails to communicate. **To avoid any confusion please identify yourself and include the course number when you email us.** The TAs or I will respond to your emails within 24 hours during the week. We reserve our right not to check emails on the weekends.

COURSE SCHEDULE
Most assignments are due on Friday

Week	Dates	Topics	Work Due
1	Aug 19 Aug 21	Introduction to Data Visualization Data vis, types of data, types of charts	
2	Aug 26 Aug 28	Basic Charts and Styling – bar charts Line and area charts	
3	Sep 2 Sep 4	Scatter and Bubble plots Pie charts, heatmaps and more	Assignment 1
4	Sep 9 Sep 11	Maps Calculated fields I	Assignment 2
5	Sep 16 Sep 18	Calculated fields II Analytics Tab	
6	Sep 23 **Sep 25**	Exam 1 review + Tableau Public **Exam 1**	Exam 1 + Assignment 3
7	Sep 30 Oct 2	Dashboards I Dashboards II	
8	Oct 7 Oct 9	Dashboards III Stories	Assignment 4
9	*Oct 14* Oct 16	*Fall Break* Hierarchies, groups and sets	Assignment 5
10	Oct 21 Oct 23	Speaker TBD Relationships and Joins	Assignment 6
11	Oct 28 Oct 30	Blends and Extracts Exercise	Assignment 7
12	Nov 4 **Nov 6**	Exam 2 Review **Exam 2**	Exam 2
13	Nov 11 Nov 13	Practice exam Practice exam	Assignment 8
14	Nov 18 Nov 20	Tableau Prep Builder Power BI	
15	Nov 25 *Nov 27*	Power BI *Thanksgiving Break*	Assignment 9
16	Dec 2 Dec 4	Power BI Summary and Review	Assignment 10
17	Dec 8	The final exam is on Monday Dec 8 at 7:30 a.m. – 10:00 a.m.	Final Exam

STUDENT SURVEY OF TEACHING

You will have multiple opportunities to provide feedback on your experience in this course. Suggestions and constructive criticism are encouraged throughout the course and may be particularly valuable early in the semester. To that end, I will use mid-semester surveys and/or reflection assignments to gather input on what is working well and what could be improved. You will also be asked to complete an end-of-semester, online Student Survey of Teaching, which could inform modifications to this course (and other courses that I teach) in the future.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

The Student Access Center (SAC) coordinates academic accommodations and services for all eligible KU students with disabilities. If you have a disability for which you wish to request accommodations and have not contacted SAC, please do so as soon as possible. The SAC is located in 22 Strong Hall and can be reached at 785-864-4064 (V/TTY). Information about the SAC's services can be found at https://access.ku.edu/. Please also contact the instructor privately in regard to your needs in this course.

ACADEMIC CODE OF HONOR

The KU School of Business seeks to develop future leaders with the highest ethical standards. It is through a strong code of conduct that a feeling of mutual trust and respect between students, faculty, and staff is maintained. This code of conduct was developed by the students, faculty, and staff to articulate the School's core values and provide guidance on academic integrity. This code applies to the conduct of students, faculty, and staff at any function or academic activity conducted by the School of Business at the University of Kansas. https://business.ku.edu/honor-code.

COMMERCIAL NOTE-TAKING

Pursuant to the University of Kansas' Policy on Commercial Note-Taking Ventures, commercial note-taking is not permitted in this course. Lecture notes and course materials may be taken for personal use, for the purpose of mastering the course material, and may not be sold to any person or entity in any form. Any student engaged in or contributing to the commercial exchange of notes or course materials will be subject to discipline, including academic misconduct charges, in accordance with University policy. **Please note**: note-taking provided by a student volunteer for a student with a disability, as a reasonable accommodation under the ADA, is **not the same** as commercial note-taking and is **not** covered under this policy.

This syllabus is tentative. I reserve the right to change it.