

Course Syllabus

 Edit

USF Muma

College of Business

School of Information Systems and Management

UNIVERSITY of SOUTH FLORIDA

ISM 4930 - 002

Data Visualization

Spring 2026

BS AIBA Students

Please download a copy of the course syllabus for your convenience.

Instructor	Han Reichgelt, PhD
Office	LPH 430 St Petersburg CIS 2057 Tampa
Office phone	727-873-4786
Fax	TBD
Email	reichgelt@usf.edu (mailto:reichgelt@usf.edu)
Classroom	CPR 125
Time:	TR 2:00-3:15pm

Office hours

Mondays **10:00-12:00 pm** (https://teams.microsoft.com/l/meetup-join/19:meeting_ODRhYzE2OGQtMzIIZC00MWQ2LTkxZDYtOTAzN2UzMjdmZTkx@thread.v2/0?context=%7B%22Tid%22:%22741bf7de-e2e5-46df-8d67-82607df9deaa%22,%22Oid%22:%221b3ef0f3-b0ad-44bd-8a43-d3804d2e3d10%22%7D) (at CIS 2057 in Tampa or via Teams) and **6:00-8:00 pm** (https://teams.microsoft.com/l/meetup-join/19:meeting_NWI4ZGUzNjltZmUwNS00MmEzLWlyOGMtOTU0YjhIMWRiZWRh@thread.v2/0?context=%7B%22Tid%22:%22741bf7de-e2e5-46df-8d67-82607df9deaa%22,%22Oid%22:%221b3ef0f3-b0ad-44bd-8a43-d3804d2e3d10%22%7D) (via Teams) and **12:00 until 3:30** (https://teams.microsoft.com/l/meetup-join/19:meeting_MWQ1MTU1ZGItdMDYyOC00ZjM0LWI4MGQtZGFjOWJjOWJiNmYx@thread.v2/0?context=%7B%22Tid%22:%22741bf7de-e2e5-46df-8d67-82607df9deaa%22,%22Oid%22:%221b3ef0f3-b0ad-44bd-8a43-d3804d2e3d10%22%7D) on Wednesdays (at CIS 2057 in Tampa or via Teams). You can also just make an appointment

Course Catalog Description:

The course provides an overview of the data and information visualization discipline. Using a hands-on approach, readings, and lectures will cover various visualization principles and tools.

Expanded Course Description:

As organizations gather and access more and more data, the issue of knowledge management in general and business intelligence and data analytics in particular takes on an increasing importance for organizational success. However, while the various business intelligence tools often offer important information, in order for such information to be useful from an organizational point of view, it needs to be presented in a way that is accessible. Data/Information visualization is widely used in several industries, including business, engineering, and media disciplines to help people analyze and understand what the data is telling us. The visualization field has grown exponentially over the last few years, and thus there are more tools available to help us quickly and efficiently create compelling ways to understand data.

This course examines how to present insights gained through the application of business intelligence techniques in the most effective way to tell stories that can improve the quality of leadership decisions.

Course Objectives:

At the conclusion of this course, students are expected to be able to:

1. Discuss the importance of data visualization in improving data-driven organizational decision-making.
2. Distinguish between truthful visualizations and misleading visualizations, and discuss what makes a visualization truthful or misleading.
3. Use data visualization tools to produce quality visualizations.
4. Create visualizations in at least one programming language.

5. Use widely used data visualization tools to clearly, effectively and compellingly communicate insights to improve organizational decision making.

Grading:

You will be assessed using a number of different assessment tools, including

- A number of smaller projects.
- Initial posts in discussion forums.
- Participation in classroom discussions.
- An essay in which you are asked to critically compare the data visualization tools covered in the course.
- The larger group project in which you will conduct data analysis and data visualizations on a data set of your own choosing, and
- A reflective essay in which you reflect on what you learned in the course and how you could use the competencies acquired in the course in your professional career.

Unless otherwise indicated, the deadline for all the assignments is Monday. This will give us enough time to grade the assignments so that we discuss any general issues that arise from the assignment in class.

The link of most of the assessments to the course objectives will be clear. The only assessment instrument that needs justification is the reflective essay. Research (see e.g. [Teaching Excellence & Educational Innovation \(http://www.cmu.edu/teaching/principles/learning.html\)](http://www.cmu.edu/teaching/principles/learning.html)) has shown that learning improves considerably, especially for adult students, if students reflect on their learning and how they could use the competencies and knowledge that they acquired in a course through their own careers. There will be more details on what to include in the essay later on in the course.

Since the project is such a large part of the overall grade for the course, you are welcome to submit an early draft of the project, and there will be a number of graded discussions in which you are asked to report on the progress of your project and on any issues that you may be running into. The project will consist of a written report and several visualizations in whatever tool you choose (Tableau or Power BI). You will also be asked to make a project presentation, consisting of a 5-minute video.

Your grade will be determined as follows:

Assessment	Total
Exercises, including class exercises	350
Discussions	90

Assessment	Total
Comparative Essay	30
Reflective Essay	30
Project Progress Reports and Presentations	100
Final Project including Project Presentation	230
Total	830

Your raw numerical grade will be converted to a letter grade according to the following table:

A+	97%	100%
A	93.5%	96.9%
A-	90%	93.4%
B+	87%	89.9%
B	83.5%	86.9%
B-	80%	83.4%
C+	77%	79.9%
C	73.5%	76.9%
C-	70%	73.4%
D+	67%	69.9%
D	63.5%	66.9%
D-	60%	63.4%
F	0%	59.9%

Course Policies:

Contacting the Instructor:

The easiest way to contact me is through CANVAS. I typically log in at least once a day, and often more frequently, and this includes weekends. You can also reach me by email as reichgelt@usf.edu or on my mobile 678-314-4432. I will normally answer you within 24 hours and often more quickly, unless I have indicated through a course announcement that I may not be able to. If you want to meet me in person, please contact me during my office hours or make an appointment.

Communications from the Instructor:

In addition to communicating with you in class, I will in general communicate with you through course emails and course announcements, and it is therefore crucial that you log in at least twice a week to make sure that there are no new messages from me. I will also communicate with you by leaving comments on the various assignments that you complete. It is important that you read these even if you earned the maximum grade on the assignment because I often make some comments on how you could further improve the assignment.

Deadlines:

I will strictly enforce deadlines. If you miss a deadline, then, in fairness to students who did complete their work by the deadline, I will deduct 10% for every day, or part thereof, the assignment is late by. Since the technology is still not 100% reliable, I would encourage you not to wait until the last moment before you start working on your assignments. Also, as you are working, please save your work often, preferably both on your computer and on some back-up storage device, such as a USB drive. In return, you can expect me to grade your work within 48 hours for the larger assignments and more quickly for the smaller assignments.

Chatbots:

The course contains a few assignments that require you to create written documents. A few of them ask for your opinion, and the use of a chatbot is therefore not allowed. If I have evidence that you used a chatbot for these assignments, I will give you an F and report for violating the academic integrity policy. If you use a chatbot for any of the other assignments, you must, in addition to the assignment itself, include an appendix which shows the prompts that you used for the chatbots and the text generated by the chatbot.

University Policies:

USF has a set of central policies related to student recording class sessions, academic integrity and grievances, student accessibility services, academic disruption, religious observances, academic continuity, food insecurity, and sexual harassment that **apply to all courses at USF**. Be sure to review these online at: <https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx> (<https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx>).

Honor System:

Under the USF Honor System, each student is expected to observe complete honesty in all academic matters. Violation of the Honor System will be referred to the Honor Council. Note: The following are violations of the Honor Code: Copying another student's homework, signing another student's name on the attendance roster, copying another group's disk or written work, using another student's computer disk to print out your assignment, copying another student's file onto your disk, and misrepresenting a reason for a missed exam. Punishment for academic dishonesty may result in an automatic "F" or "FF" in the course or action that may result in suspension or expulsion. See the USF Policy on Academic Dishonesty & Disruption of the Academic Process at <https://www.usf.edu/graduate->

[studies/students/academic-integrity-of-students](https://www.usf.edu/graduate-studies/students/academic-integrity-of-students) (<https://www.usf.edu/graduate-studies/students/academic-integrity-of-students>)

Students with Accessibility Issues:

Please notify your instructor by the second week if you have a learning disability or require special assistance with this course. For additional information about academic accommodations and resources, you can visit the SAS website at <https://www.usf.edu/student-affairs/student-accessibility/> (<https://www.usf.edu/student-affairs/student-accessibility/>).

We have made every effort to make the course material as accessible as possible. However, we rely heavily Canvas in this course. Consult <https://community.canvaslms.com/docs/DOC-2061>. (<https://community.canvaslms.com/docs/DOC-2061>) for the accessibility practices policies for Canvas. If you run into accessibility problems with either, please contact me.





S/U Grades:













This course cannot be taken on an S/U basis.













Title IX and Responsible Employees:

All USF faculty (adjunct, TA, etc) are designated Responsible Employees. If you have experienced sexual harassment, sexual violence, relationship violence or stalking, Responsible Employees are here to listen and connect you to resources. When a disclosure is made to a Responsible Employee, they will notify the Title IX Office on your behalf and that office will send you an email with your rights, policies, and resources (if it is safe to do so). You are not obligated to respond to this email and The Title IX Office does not share information about the report unless requested by the discloser or as required to address imminent risk to members of our community.

Course Summary:

Date	Details	Due
Sun Jun 22, 2025	 Project Check Point (https://usflearn.instructure.com/courses/2063354/assignments/19060789)	due by 11:59pm
Thu Jan 15, 2026	 Syllabus Discussion (https://usflearn.instructure.com/courses/2063354/assignments/19060773)	due by 11:59pm
	 Good Visualization Discussion (https://usflearn.instructure.com/courses/2063354/assignments/19060771)	due by 11:59pm
Wed Jan 21, 2026	 Misleading Visualization Discussion (https://usflearn.instructure.com/courses/2063354/assignments/19060769)	due by 11:59pm

Date	Details	Due
Thu Jan 22, 2026	 Appropriate Visualizations Group Discussion (https://usflearn.instructure.com/courses/2063354/assignments/19207989)	due by 11:59pm
Mon Jan 26, 2026	 Initial Project Ideas (https://usflearn.instructure.com/courses/2063354/assignments/19060777)	due by 11:59pm
Tue Feb 3, 2026	 Group Exercise: Creating a Tableau Data Source (https://usflearn.instructure.com/courses/2063354/assignments/19208027)	due by 11:59pm
Mon Feb 9, 2026	 Data Visualization and Visual Impairment (https://usflearn.instructure.com/courses/2063354/assignments/19060759)	due by 11:59pm
Mon Feb 23, 2026	 Tableau Exercise 1 (https://usflearn.instructure.com/courses/2063354/assignments/19060753)	due by 11:59pm
Mon Feb 23, 2026	 Project Progress Report (https://usflearn.instructure.com/courses/2063354/assignments/19217959)	due by 11:59pm
Thu Feb 26, 2026	 Tableau Exercise 2 (https://usflearn.instructure.com/courses/2063354/assignments/19060741)	due by 11:59pm
Thu Feb 26, 2026	 Project Progress Presentation (https://usflearn.instructure.com/courses/2063354/assignments/19217961)	due by 11:59pm
Mon Mar 2, 2026	 Tableau Exercise 3 (https://usflearn.instructure.com/courses/2063354/assignments/19060757)	due by 11:59pm
Mon Mar 9, 2026	 Power BI Exercise 1 (https://usflearn.instructure.com/courses/2063354/assignments/19060755)	due by 11:59pm
Mon Mar 23, 2026	 Power BI Exercise 2 (https://usflearn.instructure.com/courses/2063354/assignments/19060743)	due by 11:59pm
Tue Mar 24, 2026	 Project Progress Report 2 (https://usflearn.instructure.com/courses/2063354/assignments/19241317)	due by 11:59pm

Date	Details	Due
Thu Mar 26, 2026	 Project Progress Presentation  2 https://usflearn.instructure.com/courses/2063354/assignments/19241319	due by 11:59pm
Mon Mar 30, 2026	 Qlik Exercise https://usflearn.instructure.com/courses/2063354/assignments/19060751	due by 11:59pm
Mon Apr 6, 2026	 R Studio Exercise https://usflearn.instructure.com/courses/2063354/assignments/19060745	due by 11:59pm
Mon Apr 20, 2026	 Draft Final Report Assignment https://usflearn.instructure.com/courses/2063354/assignments/19060785	due by 11:59pm
Thu Apr 23, 2026	 Python Exercise https://usflearn.instructure.com/courses/2063354/assignments/19060749	due by 11:59pm
Thu Apr 23, 2026	 Final Project Presentation https://usflearn.instructure.com/courses/2063354/assignments/19241669	due by 11:59pm
Tue May 5, 2026	 Comparative Essay https://usflearn.instructure.com/courses/2063354/assignments/19060783	due by 11:59pm
Tue May 5, 2026	 Reflection Paper https://usflearn.instructure.com/courses/2063354/assignments/19060793	due by 11:59pm
Thu May 7, 2026	 Final Project Assignment https://usflearn.instructure.com/courses/2063354/assignments/19060787	due by 11:59pm
	 Assignment (Nexus USF) https://usflearn.instructure.com/courses/2063354/assignments/19060781	
	 Quiz (Nexus USF) https://usflearn.instructure.com/courses/2063354/assignments/19060735	