



Syllabus

SCHOOL OF BUSINESS AND MANAGEMENT **BUS 446: Data Visualization and Dashboards**

5 Credits
Effective: Spring 2019/2020

Access to the Internet is required.
All written assignments must be in Microsoft-Word-compatible formats.
See the library's APA Style Guide tutorial for a list of resources that can help you use APA style.

FACULTY

Faculty Name: FACULTY NAME

Contact Information: CONTACT INFORMATION

[INSTRUCTOR MAY INSERT PERSONAL MESSAGE IF DESIRED]

COURSE DESCRIPTION

Analysis of data sets will be more effective if the information discovered is accurately conveyed to key organizational stakeholders. This class focuses on the best way to communicate the information that the data analysis is trying to tell. The course starts by teaching students best practices for telling stories with data and then turns its focus on using Tableau to set up data visualizations and dashboards. Students will complete the course with a full understanding of how to communicate data using Tableau.

COURSE RESOURCES

Required and recommended resources to complete coursework and assignments are found on the course [Reading List](#). The reading list can be found under Course Information in Blackboard as well as from the library homepage.

Note: Required resources that must be purchased by the student are tagged “Purchase from a vendor of your choosing.” Required resources with a direct link, “Available through CityU Library”, are available at no cost to students.

Students in Canada will see required resources they need to purchase tagged “Purchase from the Canadian Bookstore.” Students outside the U.S. and Canada should contact their advisor or textbook coordinator for additional information.

COURSE OUTCOMES

In this course, learners:

- Interpret information about organizational data in terms of its usefulness in strategic process decisions.
- Present data and analyses to stakeholders in a format that is clear and informative.
- Apply push and pull approaches to analytics reporting.
- Build visualizations and dashboards that managers can use to evaluate organizational performance and make strategic decisions.

OVERVIEW OF COURSE GRADING

The grades earned for the course will be derived using City University of Seattle's decimal grading system, based on the following:

<i>Overview of Required Assignments</i>	<i>% of Final Grade</i>
Discussion Board	20%
Weekly Tableau Projects	40%
Storytelling Presentation Project	10%
Presentation / Report Analysis	10%
Final Dashboard Project	20%
TOTAL	100%

SPECIFICS OF COURSE ASSIGNMENTS

The instructor will provide grading rubrics with more detail as to how this assignment will be graded.

Weekly Tableau Projects

Students will develop and sharpen data visualization and dashboarding skills using Tableau. In the early weeks, students will focus on presenting data visuals that are based on files that are provided. Later, they will be building dashboards that show the relationships between different parts of the data. They will communicate the meaning and utility of these dashboards using data storytelling skills.

All of these assignments will build in complexity to prepare students for their final project which will be to build a storytelling dashboard for a large dataset.

<i>Components</i>	<i>% of Grade</i>
Storytelling with Data	25%
Organization and Coherence	25%
Visual Representation of Data	50%
TOTAL	100%

Storytelling Presentation Project

Students will be provided with a data file. They are to analyze the data file and draw some conclusions based on what they find in the file.

Then, they are to put together a PowerPoint presentation that shares the story they think the data is trying to tell.

The PowerPoint presentation should:

1. Have an introduction slide
2. Have 3-5 slides that tell the story

3. Use the best practices that they have learned from their study of data storytelling practices.
4. Assume the audience is not familiar with the data or the story that it tells
5. Have notes on each slide (except the introduction slide) where more details about the story are provided.

<i>Components</i>	<i>% of Grade</i>
Quality of the Presentation	50%
Data Analysis	25%
Use of course concepts	25%
TOTAL	100%

Presentation / Report Analysis

The instructor will provide students with an example report, one that has been used in the business world.

Based on what students have learned about best practices in communicating data, they will write critique of the report. They are to answer the following questions:

1. What is designed well? Why do you think it is designed well?
2. What needs to be changed / fixed? Why do you think that it does not work?
3. How might you change this report?
4. Does this report tell a story? Could it be told better?

Students are to provide 3-5 page written analysis of the sample report. They must include a title page and a reference page (beyond the 3-5 pages of analysis that are to be provided).

Students are to include clear references to what they have learned / read that lead them to indicate that things work well or need to be changed in the sample report.

<i>Components</i>	<i>% of Grade</i>
Critical Analysis	40%
Style and Mechanics	10%
Critique of the Report	50%
TOTAL	100%

Final Dashboard Project

In this final culminating assignment, each student will build their own dashboard. Ideally, this will be a dashboard using data that might have come from the student's job or their own personal use. Students will be allowed to select their own dataset to make this as meaningful and relevant as they can. Those students who do not have access to an appropriate dataset will be provided with one from the instructor.

Regardless of the dataset that the student chooses, they are to use best practices to build a dashboard that conveys useful information from their analysis. By this time, all students have had a chance to practice building dashboards so this is a continuation of that process. The task is to analyze the data file in Tableau to build a dashboard that can be presented to communicate a story and/or persuade an audience to take

action.

To do this students must:

1. Become familiar with the data. What is in it? What story is it telling? What does it convey?
2. Build at least four visuals that are combined into a dashboard.
3. Ensure that the dashboard shows all visualizations in a logical form that helps tell the story.
4. Write an accompanying paper that tells the story. This could be the script of a presentation. The paper should describe each of the visuals in sufficient detail including details on how they come together to become a dashboard that tells the story.

Success on this final project will be based on the quality of the presentation and the accompanying paper. Do they follow the best practices of data storytelling? Do the visuals render correctly? Do they support the story?

<i>Components</i>	<i>% of Grade</i>
Quality of the Dashboard	50%
Final Dashboard Paper	30%
Style and Mechanics	20%
TOTAL	100%

COURSE POLICIES

Late Assignments

A critical aspect of management is to meet predefined deadlines. Therefore, all assignments are expected to be submitted when due. No late assignments are accepted. Life-situations do occur. When an issue arises coordinate with the instructor PRIOR TO the assignment's due date and the due date may be adjusted. It is in the best interest of the student to ensure that all assignments are submitted on time.

Participation

Class participation will be evaluated during class. Participation includes being prepared for class discussions and contributing meaningful content when appropriate. It also includes individual effort contributed to team projects.

Professional Writing

Assignments require error-free writing that uses standard English conventions and logical flow of organization to address topics clearly, completely, and concisely. CityU requires the use of APA style.

UNIVERSITY POLICIES

You are responsible for understanding and adhering to all of City University of Seattle's academic policies. The most current versions of these policies can be found in the [University Catalog](#) that is linked from the CityU Web site.

Title IX Statement

City University of Seattle and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. If you have encountered any form of sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the University. If you speak with a faculty member about an incident of misconduct, that faculty member must notify CityU's Title IX coordinator and share the basic fact of your experience. The Title IX coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus.

To view CityU'S sexual misconduct policy and for resources, please visit the [Campus Safety](#) and [Title IX](#) Page in the my.cityu.edu portal.

Scholastic Honesty

Scholastic honesty in students requires the pursuit of scholarly activity that is free from fraud, deception and unauthorized collaboration with other individuals. You are responsible for understanding CityU's policy on scholastic honesty and adhering to its standards in meeting all course requirements. A complete copy of this policy can be found in the [University Catalog](#) in the section titled *Scholastic Honesty* under *Student Rights & Responsibilities*.

Attendance

Students taking courses in any format at the University are expected to be diligent in their studies and to attend class regularly.

Regular class attendance is important in achieving learning outcomes in the course and may be a valid consideration in determining the final grade. For classes where a physical presence is required, a student has attended if s/he is present at any time during the class session. For online classes, a student has attended if s/he has posted or submitted an assignment. A complete copy of this policy can be found in the [University Catalog](#) in the section titled *Attendance Policy for Mixed Mode, Online and Correspondence Courses*.

SUPPORT SERVICES

Disability Services Accommodations Statement

Students with a documented disability who wish to request academic accommodations are encouraged to contact Disability Support Services to discuss accommodation requests and eligibility requirements. Please contact Disability Support Services at disability@cityu.edu or 206.239.4752 or visit the [Disability Support Services](#) page in the my.cityu.edu portal. Confidentiality will be observed in all inquiries. Once approved, information about academic accommodations will be shared with course instructors.

Library Services

CityU librarians are available to help you find the resources and information you need to succeed in this course. Contact a CityU librarian through the [Ask a Librarian](#) service, or access [library resources and services online](#), 24 hours a day, seven days a week.

Smarthinking

As a CityU student, you have access to 10 free hours of online tutoring offered through Smarthinking, including writing support, from certified tutors 24 hours a day, seven days a week. Contact CityU's Student Support Center at help@cityu.edu to request your username and password.