

CHAPMAN UNIVERSITY
School of Computational Sciences
One University Drive
Orange, CA 92866
(714) 628-7344

COURSE SYLLABUS
CPSC 298 Interterm 2020
Data Visualization for Business

Instructor

Elia Eiroa Lledo (eiroalledo@chapman.edu)

Office hours : Tuesdays 2:00 pm - 3:30 pm at the Keck Stairs or by appointment

Required Text

Readings provided and posted on Blackboard

Catalog Description

Prerequisites, CPSC 230.

CPSC 298 – Data Visualization for Business is a course in which students will be introduced to Tableau. Tableau is a leader for data visualization in industry. Its user-friendly interface makes it easy for anyone to master. This course will be project-based. Students will be taught the useful features of Tableau and will create a dashboard from data that they are interested on. In the process, they will learn the best design practices in order to make a comprehensible and useful dashboard for end-users. This course aims to teach students how to present data and analyses in a way that can be understood by business users and executives. 1 credit. Pass / No Pass.

Content

Students will be introduced to the basics of data visualization and the importance of a user-centered design.

Course Learning Outcomes:

Upon successful completion of the course, the student will be able to:

1. Design a comprehensive and cohesive Tableau dashboard from start to finish.
2. Learn how to extract data from various sources to create useful visuals and reports for business users.
3. Get to know the capabilities of Tableau's visuals and data analysis tools.
4. Learn how to create a story from data and analysis by understanding and applying the basics of User Experience Design theory.
5. Learn the right questions to ask your data and how to visualize them.
6. Publish, collaborate on and share dashboards.

Specific Learning Objectives

1. Understand the process of interaction design.
2. Design user-centered dashboards by learning how to think about the questions the end-user will need answered.
3. Establish user requirements.
4. Present a proposal.
5. Learn how to organize a dashboard in a way that is easy to follow
6. Connect to data sources and import data
7. Transform, combine and clean data to make it useful for reporting
8. Introduction to visuals: bar charts, pie charts, maps, waterfalls, funnels...
9. Create and import a report theme for cohesion

B.S. in Computer Science Program Learning Outcomes

1. Graduates will have mastered the foundational concepts of computing and problem solving.
2. Graduates will be able to utilize design and implementation practices in traditional and emerging technology settings.
3. Graduates will be able to present technical information in both oral and written formats

Methods of Evaluation:

Students will be graded on attendance, final project (dashboard), and final exam.

Grade weights and grading scale:

- Attendance: 40 points (5 points per class meeting)
- Proposal: 10 points
- Final Project: 40 points
- Final Exam: 10 points

Attendance: Mandatory, for first 2 days-no excused absences without contacting me before class except in the case of an emergency. Attendance will be taken for each class and 5 points per class attendance will be awarded for a total of **40** points.

Grade Distribution for TOTAL: 100 points

Pass: 74 – 100 points

No Pass: 0 – 73 points

Chapman University Academic Integrity Policy:

Chapman University is a community of scholars which emphasizes the mutual responsibility of all members to seek knowledge honestly and in good faith. Students are responsible for doing their own work, and academic dishonesty of any kind will not be tolerated anywhere in the university. At their discretion the faculty may submit work to plagiarism detection software, such as www.turnitin.com for review.

Students with Disabilities

In compliance with ADA guidelines, students who have any condition, either permanent or temporary, that might affect their ability to perform in this class are encouraged to contact the Office of Disability Services. If you will need to utilize your approved accommodations in this class, please follow the proper notification procedure for informing your professor(s). This notification process must occur more than a week before any accommodation can be utilized. Please contact Disability Services at (714) 516-4520 or (www.chapman.edu/students/studenthealth-services/disability-services) if you have questions regarding this procedure, or for information and to make an appointment to discuss and/or request potential accommodations based on documentation of your disability. Once formal approval of your need for an accommodation has been granted, you are encouraged to talk with your professor(s) about your accommodation options. The granting of any accommodation will not be retroactive and cannot jeopardize the academic standards or integrity of the course.

Chapman University's Students with Disabilities Policy

In compliance with ADA guidelines, students who have any condition, either permanent or temporary, that might affect their ability to perform in this class are encouraged to contact the Office of Disability Services. If you will need to utilize your approved accommodations in this class, please follow the proper notification procedure for informing your professor(s). This notification process must occur more than a week before any accommodation can be utilized. Please contact Disability Services at (714) 516-4520 if you have questions regarding this procedure, or for information and to make an appointment to discuss and/or request potential accommodations based on documentation of your disability. Once formal approval of your need for an accommodation has been granted, you are encouraged to talk with your professor(s) about your accommodation options. The granting of any accommodation will not be retroactive and cannot jeopardize the academic standards or integrity of the course.

Equity and Diversity Statement

Chapman University is committed to ensuring equality and valuing diversity. Students and professors are reminded to show respect always as outlined in Chapman's Harassment and Discrimination Policy. Any violations of this policy should be discussed with the professor, the Dean of Students and/or otherwise reported in accordance with this policy.

Student Support at Chapman University

Over the course of the semester, you may experience a range of challenges that interfere with your learning, such as problems with friend, family, and or significant other relationships; substance use; concerns about personal adequacy; feeling overwhelmed; or feeling sad or anxious without knowing why. These mental health concerns or stressful events may diminish your academic

performance and/or reduce your ability to participate in daily activities. You can learn more about the resources available through Chapman University's Student Psychological Counseling Services here:
<https://www.chapman.edu/students/health-and-safety/psychological-counseling/>.

Fostering a community of care that supports the success of students is essential to the values of Chapman University. Occasionally, you may come across a student whose personal behavior concerns or worries you, either for the student's wellbeing or yours. In these instances, you are encouraged to contact the Chapman University Student Concern Intervention Team who can respond to these concerns and aid: <https://www.chapman.edu/students/health-and-safety/student-concern/index.aspx>. While it is preferred that you include your contact information, so this team can follow up with you, you can submit a report anonymously. 24-hour emergency help is also available through Public Safety at 714-997-6763.