

COURSE SYLLABUS

Data Visualization Techniques

CTS2417, Section # 1591

Online Instruction

0575: Summer, 2020

View [How to Be a Successful Student](#) which provides details about success factors and links to the most current version of fluid information, such as the academic calendar.

WELCOME

Welcome to CTS2417 for the Spring, 2020 semester. Be sure to read the syllabus in it's entirety as it answers many basic questions in regards to class policies. I hope you enjoy the class!

INSTRUCTOR

Name: Dawn Ellis, Academic Chair

Email: Please use the email function through the Communicate feature in my|Courses.

Phone: 7276147025

Office and Online Hours: Please consult my faculty web page (linked below) for campus hours.

Office Location: Clearwater, ES213B

Instructor Webpage: <https://web.spcollege.edu/instructors/id/Ellis.Dawn>

ACADEMIC DEPARTMENT

Dean

Name: Dr. John Duff

Office Location: SPG-TE 116C

Office Phone Number:

Email: duff.james@spcollege.edu

Website

[College of Computer & Information Technology](#)

COURSE INFORMATION

Course Description

This course introduces students to key design principles and techniques for interactively visualizing data. In addition to understanding how visual representations are used in the analysis and understanding of complex data, students will acquire data visualization skills including designing effective visualizations and creating interactive visualizations using spreadsheets.

See: [CTS2417 Approved Course Outline](#)

Course Goals & Objectives

1. The student will develop visuals for communicating information by:
 - a. creating cross tabulations.
 - b. creating pivot tables.
 - c. creating scatter charts.
 - d. creating line, bar, and column charts.
 - e. creating bubble charts.
 - f. creating heat maps.
2. The student will identify and analyze misleading charts and visualizations by:

- a. describing how human error and bias can affect visualizations.
 - b. determining misleading chart scales.
 - c. explaining the difference between explanatory and exploratory visualizations.
3. The student will apply the principles of data dashboard design by:
- a. identifying Key Performance Indicators (KPIs).
 - b. explaining why graphical dashboards are preferred over text/report based graphics.
 - c. discussing the importance of providing drill-down of real-time data in a dashboard.

Prerequisites

CGS1515 with a minimum grade of C.

Availability of Course Content

Course content is available after completing the course syllabus quiz with 100%.

REQUIRED TEXTBOOK & OTHER RESOURCE INFORMATION

Required Textbook

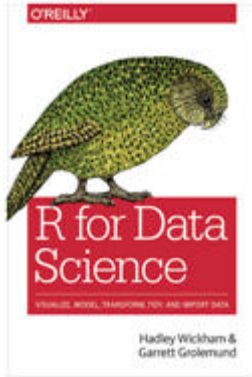
Business Analytics MindTap (1 Term) | Edition: 3rd 2018

Publisher Information: Cengage

ISBN: 9781337615556

*Note: This textbook is used in three courses. Students planning to take CTS2450 and CAP2762 in the next consecutive terms, may opt to purchase multi-term access. The ISBN for 12 months access is 9780357700044.

You will also be accessing the following resource:



Review the Online Resource:
[R for Data Science](#)

View the [Textbooks](#) site.

View the [Learning Resources](#) site.

LEARNER SUPPORT

Answers to questions regarding accommodations may be found at the [Accessibility Services](#) site. If you are in need of accommodations, please contact a campus [Accessibility Services Coordinator](#). If you need a Sign Language Interpreter, complete the form at web.spcollege.edu/survey/664.

View the [Learning Resources](#) site.

View the [Learning Center Tutoring Schedules](#).

View the [Student Services](#) site.

As an SPC student it's vital that you know Titans Care. You can access resources through SPC's Student Assistance Program (SAP) (<https://mycoursesupport.spcollege.edu/student-assistance-program>), a collaborative resource for students with mental health or general life issues. SAP provides help and education in suicide prevention, mental health, substance abuse awareness and more. It is SPC's belief that supporting mental wellness is everyone's charge and that one loss as a result of substance abuse, mental illness, or suicide is one too many. If you or a loved one are considering suicide, please call the National Suicide Prevention Lifeline at 1-800-273-8255.

IMPORTANT DATES

Course Dates: May 18, 202 - July 10, 2020

Drop Date: View the [Academic Calendar](#).

Withdrawal Date: View the [Academic Calendar](#).

Proctored Testing Dates: View the [Proctored Testing Information](#).

Financial Aid Dates: View the [Financial Aid Dates](#).

ATTENDANCE

View the college-wide attendance policy included in [How to Be a Successful Student](#).

The policy notes that each instructor is to exercise professional judgment and define "active participation" in class (and therefore "attendance"), and publish that definition in each syllabus.

For this class, attendance is defined as follows. Week 1 attendance is based on completion of the syllabus acceptance quiz and your introductory post. Week 2 attendance is based on completion of module 1 activities. To be considered actively participating at the 60% mark, you must have an average of 68% or higher.

GRADING

Each module contains a variety of assignments including, quizzes, practical application of the skills via MindTap, dropbox assignments, and discussions. Each assignment has an assigned point value and that value is listed in the assignment itself, and within the course content. A break down of course points by module is below.

Module	Available Points
Module 1	60 points
Module 2	220 points
Module 3	200 points
Module 4	200 points
Module 5	100 points
Module 6	70 points
Module 7	120 points
Total Course Points	970 points

How to check your Grades and review feedback:

- [Checking Your Grades](#)
- [Reviewing Dropbox Submissions](#)
- [Checking Discussion Grades and Feedback](#)
- [Reviewing Quiz Submissions](#)

Grading Scale

Grade	Percentage	Points
A	90-100%	873 - 970 points
B	80-89%	776 - 872 points
C	70-79%	679 - 775 points
D	60-69%	582 - 678 points
F	0-59%	0 - 581 points

ASSIGNMENTS

This course has seven modules, each containing a number of assignments, including readings, MindTap activities, Discussions, Quizzes, and R assignments. Most assignments are due Monday evening, no later than 11:59 p.m. See the [Assignment Schedule](#) for specifics.

STUDENTS' EXPECTATIONS AND INSTRUCTOR'S EXPECTATIONS

Student Expectations

- If there are problems with completion of the assignment by the appointed date, the student must discuss the matter with the instructor PRIOR to the due date.
- It is the student's responsibility to follow the schedule of class assignments.
- Late work will not be accepted, graded, or reviewed unless permission is granted PRIOR to assignment due dates. In the event an emergency occurs, please contact your instructor regarding college policy for submitting documentation.

Instructor Expectations

- I will provide meaningful activities to develop your technical and software skills.
- I will be available to you if you have questions or concerns.
- I will respond to emails with 1 school day. If I anticipate a delay in communications, I will indicate so in an email prior to my absence.
- I will evaluate your coursework within 5 school days after the due date of an assignment.
- As the field of computers and information technology is vast and constantly changing, I will be your fellow learner.

Required Interaction (e.g., expectations on communication between and among students and the instructor).

Participation, Conduct, and Netiquette

SPC has outlined expectations for student behavior and interaction for online discussions, email, and other forms of communication. View the Student Expectations in [How to Be a Successful Student](#).

Academic Honesty

View the [Academic Honesty Policy](#).

Copyright

Copyrighted material within this course, or posted on this course website, is used in compliance with United States Copyright Law. Under that law you may use the material for educational purposes related to the learning outcomes of this course. You may not further download, copy, alter, or distribute the material unless in accordance with copyright law or with permission of the copyright holder. For more information on copyright visit: [Copyright.gov](#).

TURNITIN

The instructor of this course may require use of Turnitin.com as a tool to promote learning. The tool flags similarity and mechanical issues in written work that merit review. Use of the service enables students and faculty to identify areas that can be strengthened through improved paraphrasing, integration of sources, or proper citation. Submitted papers remain as source documents in the Turnitin database solely for the purpose of detecting originality. Students retain full copyright to their works. Review the [Turnitin Usage Agreement](#). Students who do not wish to submit work through Turnitin

must notify their instructor via course email within the first seven days of the course. In lieu of Turnitin use, faculty may require a student to submit copies of sources, preliminary drafts, a research journal, or an annotated bibliography.

View the [Reviewing a Turnitin/Originality Report](#) tutorial.

STUDENT SURVEY OF INSTRUCTION

The Student Survey of Instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential and anonymous and will be used solely for the purpose of performance improvement.

TECHNOLOGY

Minimum Technology Requirements

View the [Technical Requirements for MyCourses](#).

SPC offers Microsoft Office software to current students at no additional cost. The software is available for both Windows and Mac computers. View the [How to Download Microsoft Office 2016](#) tutorial.

Minimum Technical Skills

For online and blended classes, students should have a computer available with Microsoft Windows 10 installed with at least 4GB of memory. A high speed internet connection is required. We recommend downloading the latest version of Microsoft Office available through your MySPC account.

Students should know how to navigate the course and use the course tools. Dropbox-style assignments may require attachments in either Microsoft Word (.doc or .docx) or Rich Text Format (.rtf), so that they can be properly evaluated. If an attachment cannot be opened by the instructor, students will be required to re-format and re-submit an assignment so that it can be evaluated and returned with feedback.

MyCourses tutorials are available to students new to this LMS and are located at the beginning of the course. Most features on MyCourses are accessible on mobile devices, although it is recommended that you use a computer for quizzes, tests, and essay assignments.

Technical Support

Technical support is available via the [SPC Technical Support Center](#).

Accessibility of Technology

- [MyCourses \(Brightspace by Desire2Learn\) Accessibility](#)
- [Google \(YouTube\) Accessibility](#)

Privacy

- [MyCourses \(Brightspace by Desire2Learn\) Privacy](#)
- [YouTube Privacy](#)
- [R Studio Privacy](#)

Instructional Continuity Plan

To be prepared in the event of weather or other emergency disruptions, review the [Emergency Preparedness Procedures for Students](#).
