DEPAUL | School of Continuing and Professional Studies

Data Analytics
Undergraduate Course Information Guide

Course Number: DA 200, 4 credits, 10 Weeks
Delivery Formats: Online Async

Course Description

This course is designed as an introduction to fundamental techniques of data analytics and the various fields, such as various business and decision sciences (accountancy, economics, finance, marketing, management, operations, and healthcare), which use data to gain insights and make informed decisions. In this course students will learn various analytical tools and demonstrate their ability to execute, understand, present, and discuss analytical results. Thus, building a strong foundation in supporting data-driven decision making in various fields of interest. Major topics include the applications of logical and financial functions; data visualization and manipulation, and what-if analysis.

Learning Outcomes

After completing this course, you will be able to:

• Retrieve and manipulate data for analysis.

• Apply quantitative methods to solve management problems in Accountancy, Economics, Finance, Health, Marketing, Management, Operations, and Science.

• Evaluate scenarios to support optimal decision making.

• Interpret and communicate analyses and results effectively.

Learning Strategies and Resources

Some learning activities, assignments and deadlines will vary depending on the delivery format of the course and may differ slightly from what is presented in this document.

This course consists of ten modules. The estimated time to complete each module (lectures, readings, videos, MyITlabs, discussions, assignments, exercises, etc.) is approximately 15 hours each week.

Required Readings

Books and learning materials are available at the DePaul bookstore, at http://depaul-loop.bncollege.com, or through alternative sources.

Exploring: Microsoft Excel 2019 Comprehensive, 1/e + MyLab IT w/ Pearson eText 1st Edition ISBN-13: 978-0135825280

Exploring Microsoft Office Excel 2019 Comprehensive
ISBN-13: 978-0135452752

Additional reading materials, videos, and course exercises will be assigned and made available by the Instructor as needed. These resources will be posted to the course D2L website. These course materials are intended to supplement and to assist the student learning process. These material and exercises, while helpful and highly encouraged, are not part of the student course grade.

Learning Deliverables

MyITLabs

Points for each MyITlabs assignment accumulate at stage of the unique assignment completed correctly.

Discussions

Discussion points accumulate based on the alignment of the response to the proposed topic, as well as, the quality, depth, and length of the initial response.

Term Project
The term project has two components; proposal and implementation.

Assessment of Student Learning

Grading Practices

To complete the course, you must complete each assignment as described in the course and submit them to your instructor by the assigned deadline. In addition, you must participate in each course discussion forum by responding to all instructor requests and by interacting with fellow classmates as necessary.

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Distribution of Grade Points

Graded Assignments	Percentage of Final Grade
7 Assignments	42%
5 Discussions	15%
Project Proposal	13%
Project Paper	30%

Grading Scale

A = 95 to 100	A- = 91 to 94	B+ = 88 to 90
B = 85 to 87	B- = 81 to 84	C+ = 77 to 80
C = 73 to 76	C- = 69 to 72	D+ = 65 to 68
D = 61 to 64	F = 60 or below	INC

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Course Schedule

Week or Module Title or Theme	Readings / Learning Activities	Graded Assignments
Week 1, Module 1: Introduction (or Refresher)	Required •Poatsy, M., Mulbery, K., Davidson, J., and Grauer, R.(2019). Exploring: Microsoft Excel2019, Comprehensive. Chapter 1.Introduction to Excel [Video]. •Comprehensive. Chapter 1. Introduction to Excel [Textbook] Highly Encouraged	1.1 Discussion 1

	•Test your Understanding exercises •Syllabus Review •Introduction to Business Analytics video Optional •Module 1 Power Point Slides •Ungraded simulation exercise on MyITLab(Under Module 1)	
Week 2, Module 2: Basic Quantitative Analysis	Required •Poatsy, M., Mulbery, K., Davidson, J., and Grauer, R. (2019). Exploring: Microsoft Excel 2019,Comprehensive. Chapter 2. Quantitative Analysis[Video]. •Comprehensive Chapter 2 Formulas and Function Performing Quantitative Analysis[Textbook] Highly Encouraged •Test your Understanding exercise •Comprehensive Chapter 7: Specialized Functions: Using Date, Logical, Lookup, Database, and Financial Functions Optional •Module 2 Power Point slides •Simulation exercises 1 on MyITLab(Under Module 2)	2.1 Assignment 1
Week 3, Module 3: Depicting Data Visually	Required •Poatsy, M., Mulbery, K., Davidson, J., andGrauer, R. (2019). Exploring: Microsoft Excel2019, Comprehensive. Chapter 2. Quantitative Analysis [Video]. •Comprehensive. Chapter 3 Depicting Data	3.1 Assignments 2 3.2 Discussion 2

	Visually [Textbook] Highly Encouraged •Test your Understanding exercises •Data Visualization PowerPoint slides •Reading : "A theory of Direct visual Perception" Optional •Module 3 Power Point slides •Simulation exercises 2 on MyITLab(Under Module 3)	
Week 4, Module 4: Summarizing Data for Analysis	Required •Poatsy, M., Mulbery, K., Davidson, J., and Grauer, R.(2016). Exploring: Microsoft Excel 2016,Comprehensive. Chapter 5. Subtotals, PivotTables, Pivot Charts [Video] •Comprehensive. Chapter 5: Subtotals, PivotTables,and Pivot Charts: Summarizing and Analyzing Data[Textbook] Highly Encouraged •Test your Understanding exercises •Introduction to Pivot Tables, Charts, and Dashboards in Excel (video) Optional •Module 4 Power Point slides •Simulation exercise 3 on MyITLab(Under Module 4)	4.1 Assignment 3
Week 5, Module 5: Data Modelling	Required Proposal •Power Pivot Demo Optional	5.1 Discussion 3 Data Modelling 5.2 Term Project

	•Stikeleather, J. (2016). How to Tell a Storywith Data. Harvard Business Review. April24, 2013. https://hbr.org/2013/04/how-to-tell-a-story-with-data/ •The 101 Guide To Telling a CompellingStory With Data. Maptive.https://www.maptive.com/101-guide- telling-compelling-story-data/ •Data Modeling in Excel using PowerPivot (video)	
Week 6, Module 6: Decision Making I - What If Analysis and Optimization	Required •Poatsy, M., Mulbery, K., Davidson, J., and Grauer,What-If R. (2019). Exploring: Microsoft Excel 2019,Analysis and Comprehensive. Chapter 6. What If Analysis: UsingOptimization Decision Making Tools [Video]. •Comprehensive. Chapter 6: What-If Analysis:Using Decision-Making Tools [Textbook] Highly Encouraged •Test your Understanding exercises Optional •Module 6 Power Point slides •Simulation exercise on MyITLab(Under Module 6 and 7)	6.1 Assignment 4
Week 7, Module 7: Decision Making II – What-If Analysis and Optimization	Required • Poatsy, M., Mulbery, K., Davidson, J., and Grauer, R. (2019). Exploring: Microsoft Excel 2019, Comprehensive. Chapter 6. What If Analysis: Using Decision Making Tools [Video].	7.1 Assignment 5 7.2 Discussion 4

	Highly Encouraged • Test your Understanding exercises • Case Study Optional • Module 6 Power Point slides • Simulation exercise on MyITLab (Under Module 6 and 7)	
Week 8, Module 8: Statistical Functions	Required • Poatsy, M., Mulbery, K., Davidson, J., and Grauer, R. (2019). Exploring: Microsoft Excel 2019, Comprehensive. Chapter 8. Imports, Web Queries, and XML: Managing Data [Video]. • Comprehensive Chapter 8: Statistical Functions: Analyzing Statistics [Textbook] Highly Encouraged • Test your Understanding exercises • Advanced Statistics Supplement (PowerPoint) Optional • Module 8 Power Point slides • Simulation exercise on MyITLab (Under Module 8)	8.1 Assignment 6
Week 9, Module 9: Web Queries and Data Transformation	Required • Poatsy, M., Mulbery, K., Davidson, J., and Grauer, R. (2019). Exploring: Microsoft Excel 2019, Comprehensive. Chapter 8. Imports, Web	9.1 Assignment 7 9.2 Discussion 5

	Queries, and XML: Managing Data [Video]. • Comprehensive Chapter 10: Imports, XML, and Power Add-Ins: Managing Data [Textbook] Optional • Test your Understanding exercises • Module 9 Power Point slides • Simulation exercise on MyITLab (Under Module 9)	
Week 10, Module 10: Financial Functions	Required • Poatsy, M., Mulbery, K., Davidson, J., and Grauer, R. (2019). Exploring: Microsoft Excel 2019, Comprehensive. Chapter 7. Specialized Functions: Logical, Lookup, Databases, and Finances [Video]. Highly Encouraged • Test your Understanding exercises • Time Value of Money [Video] Optional • Module 10 Power Point slides • Simulation exercise on MyITLab (Under Module 10)	10.1 Term Project 10.2 Assignment 8

Course Policies

For access to all SCPS and DePaul University academic policies, refer to the following links:

SCPS Student Resources Website

DePaul Student Handbook

The D2L Course Website for this course.

Credit for Prior Learning

Students whose home college is SCPS that have not transferred more than 99 credit hours from community college or exam credit, and have not reached 132 credit hours toward graduation may qualify for prior learning credit. If you have prior knowledge you think may be equivalent to the learning outcomes of a SCPS course, you can contact the Office of Prior Learning Assessment at scpspla@depaul.edu or the PLA website for information on how to submit a proposal to use Prior Learning Assessment (PLA) credit for a nominal fee in lieu of regular tuition as an alternative to completing a course.

Course Syllabus

The official syllabus for this course that includes course dates, instructor information and quarter specific details will be provided by the course instructor by the start of the course and available on the course D2L website.

Course Registration

To find out when this course will be offered next, you can go to the SCPS Registration website for details on how to register for the course.

For information on how this course can apply to your program, contact your academic advisor.

School of Continuing and Professional Studies

Suite 1400, Daley Building, 14 E. Jackson Blvd., Chicago
Website: https://scps.depaul.edu/

Office hours: 9:00 am - 5:00 pm, Monday-Friday.
Telephone: 312-362-8001. General Email: scps@depaul.edu
For Advising Assistance, call (312) 362-5445 or email scpsadvising@depaul.edu

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