BUSN661

Course Summary

Course : BUSN661 **Title :** Advanced Analytics II
Length of Course : 8
Prerequisites : BUSN660 **Credit Hours :** 3

Description

Course Description: This course is designed to continue the examination of data and its use in the problem-solving process. In this course, students will integrate advanced skills in Microsoft Excel 2010 with data analysis techniques, including an introduction to big data add-ins such as PowerPivot and the use of Data Analysis Expressions (DAX) to create queries in the PowerPivot tool. (Prerequisite: BUSN660)

Course Scope:

This course is designed for students interested or professionally involved in advanced analytics. The emphasis of the course will be on the appropriate use of statistical business analytics, modeling, and data manipulations through excel statistical functions, tools, and add-ins.

Students are expected to extrapolate the information from course materials, research, and class collaboration. Students are expected to have working knowledge with excel as well as ability to demonstrate critical thinking skills.

Objectives

After successfully completing this course, you will be able to

CO1 Learn about various Excel functions and how to use them to carry out calculations and produce outcomes.

CO2 Learn about Optimization in Excel and how to use Solver add-in to Perform calculations and produce optimization reports.

CO3 Summarize & describe data, and compute measures to demonstrate knowledge of descriptive statistics.

CO4 Learn about variable relationships and regression modeling CO5 Learn about PowerPivot & DAX

CO6 Use Data Visualization Software features within spreadsheet, statistical, and data visualization

programs to display data.

Outline

Week 1: Introduction to some excel functions

Course Objectives

CO1: Learn about various Excel functions and how to use them to carry out calculations and produce outcomes.

CO6: Use Data Visualization Software features within spreadsheet, statistical, and data visualization programs to display data.

Readings

Microsoft Excel 2013: Data Analysis and Business Modeling; Author(s): Wayne L Winston: CHAPTERS 2, 5, 6-

Assignments

W1 Homework

Week 2: Some excel functions & Commands

Course Objectives

CO1: Learn about various Excel functions and how to use them to carry out calculations and produce outcomes.

CO6: Use Data Visualization Software features within spreadsheet, statistical, and data visualization programs to display data.

Readings

Microsoft Excel 2013: Data Analysis and Business Modeling; Author(s): Wayne L Winston: CHAPTERS 12, 14, 19

Assignments

W2 Homework

Week 3: Sorting & Solver Optimization

Course Objectives

CO1: Learn about various Excel functions and how to use them to carry out calculations and produce outcomes.

CO2: Learn about Optimization in Excel and how to use Solver add in to perform calculations and produce optimization report.

CO3: Summarize & describe data, and compute measures to demonstrate knowledge of descriptive statistics.

Readings

Microsoft Excel 2013: Data Analysis and Business Modeling

Author(s): Wayne L Winston CHAPTERS 28: An Introduction to Optimization with Excel Solver

Assignments

W3 Homework

Week 4: Descriptive Statistics

Course Objectives

CO3: Summarize & describe data, and compute measures to demonstrate knowledge of descriptive statistics.

CO6: Use Data Visualization Software features within spreadsheet, statistical, and data visualization programs to display data.

Readings

Microsoft Excel 2013: Data Analysis and Business Modeling

Author(s): Wayne L Winston CHAPTERS 41 & 42: Summarizing Data by Using Histograms & Descriptive Statistics

Assignments

W4 Homework

Week 5: Probability Distributions and Data Modeling

Learning Outcomes

CO3: Summarize & describe data, and compute measures to demonstrate knowledge of descriptive statistics.

CO6: Use Data Visualization Software features within spreadsheet, statistical, and data visualization programs to display data.

Readings

- Wayne Winston Microsoft Excel 2013 Data Analysis and Business Modeling; 9780735669130, 9780735681071
- Marco Russo and Alberto Ferrari Microsoft® Excel® 2013: Building Data Models with PowerPivot; 9780735676343, 9780735676565

Microsoft Excel 2013: Data Analysis and Business Modeling

Author(s): Wayne L Winston CHAPTERS 43: Using Pivot Table and Slicers to Describe Data

Assignments

W5 Homework

Week 6: Variable relationship & Correlation

Course Objectives

CO4: Learn about variable relationships, Correlation, and regression modeling

CO6: Use Data Visualization Software features within spreadsheet, statistical, and data visualization programs to display data.

Readings

- Wayne Winston Microsoft Excel 2013 Data Analysis and Business Modeling; 9780735669130, 9780735681071
- Marco Russo and Alberto Ferrari Microsoft® Excel® 2013: Building Data Models with PowerPivot; 9780735676343, 9780735676565

Microsoft Excel 2013: Data Analysis and Business Modeling; Author(s): Wayne L Winston: CHAPTERS 53, 54, 56, 57

Assignments

W6 Homework

Week 7: Statistical Modeling & Analysis of Variance

Course Objectives

CO5: Learn about PowerPivot & DAX

CO7: Use Data Visualization Software features within spreadsheet, statistical, and data visualization programs to display data.

Readings

- Wayne Winston Microsoft Excel 2013 Data Analysis and Business Modeling; 9780735669130, 9780735681071
- Marco Russo and Alberto Ferrari Microsoft® Excel® 2013: Building Data Models with PowerPivot; 9780735676343, 9780735676565

Microsoft Excel 2013: Building Data Models with PowerPivot, Author(s): Alberto Ferrari & Marco Russo, CHAPTERS 1, and 3.

Assignments

W7 Homework

Week 8: PowerPivot

Course Objectives

CO6: Learn about PowerPivot & DAX

CO7: Use Data Visualization Software features within spreadsheet, statistical, and data visualization programs to display data.

Readings

Review of all

Assignments

Evaluation

This course delivered via distance learning will enable students to complete academic work in a flexible manner, completely online. Course materials and access to an online learning management system will be made available to each student. Online assignments are due by Sunday evening of the week as noted and include Forum questions (accomplished in groups through a threaded forum), examination, and individual assignments submitted for review by the Faculty Member). Assigned faculty will support the students throughout this eight‌week course.

Grading:

Name	Grade %

Materials

Book Title: Microsoft® Excel® 2013: Building Data Models with PowerPivot

Author: Marco Russo and Alberto Ferrari

Publication Info: Microsoft Press/Pearson

ISBN: 9780735676343

Book Title: Microsoft Excel 2013 Data Analysis and Business Modeling

Author: Wayne Winston

Publication Info: Microsoft Press/Pearson

ISBN: 9780735669130

Required Course Textbooks ▮

97807356691309780735681071	Wayne Winston	Microsoft Excel 2013 Data Ana
97807356763439780735676565	Marco Russo and Alberto Ferrari	Microsoft® Excel® 2013: Build

Web Sites

In addition to the required course texts, the following public domain web sites are useful. Please abide by the university's academic honesty policy when using Internet sources as well. Note web site addresses are subject to change.

Site Name	Web Site URL/Address

American Psychological Association (APA) Style Website	www.apastyle.org
Purdue Online Writing Lab	http://owl.english.purdue.edu/owl/resource/560/01/
YouTube Video on Formatting an APA Style Paper	http://www.youtube.com/watch?v=9pbUoNa5tyY&feature
Microsoft Office Training Website	http://office.microsoft.com/en-us/support/training-FX101782702.aspx
YouTube Videos on Microsoft Excel for Beginners	http://www.youtube.com/playlist?list=PL6D44A8F7E77DB8
Business Analytics Techniques	http://www.businessanalytics.com/

Course Guidelines

Citation and Reference Style

Attention Please: Students will follow the APA Format as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative essay or composition format must follow the citation style cited in the APA Format.

Late Assignments

Students are expected to submit classroom homework assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each Assignment. As adults, students, and working professionals, I understand you must manage competing demands on your time. We all know that "life happens" but it is important to adhere as closely to the deadlines in the class as possible.

Should you need additional time to complete a homework assignment, please contact me before the due date so we can discuss the situation and determine an acceptable resolution. If arrangements are not made in advance, a late penalty of 10% will be assessed for any homework assignment submitted 1-7 days past the due date. Assignments will not be accepted after the 7th day. Forum main response is expected by Wednesday of the week, and interactive posts are due by Sunday of the week. Late forum posts are not accepted or graded. Posting must take place during active week. No work will be accepted past the final day of class.

Netiquette

Online universities promote the advancement of knowledge through positive and constructive debate – both inside and outside the classroom. Forums on the Internet, however, can occasionally degenerate into needless insults and "flaming." Such activity and the loss of good manners are not acceptable in a university setting – basic academic rules of good behavior and proper "Netiquette" must persist. Remember that you are in a place for the rewards and excitement of learning which does not include descent to personal attacks or student attempts to stifle the Forum of others.

- **Technology Limitations:** While you should feel free to explore the full range of creative composition in your formal papers, keep e-mail layouts simple. The Sakai classroom may not fully support MIME or HTML encoded messages, which means that bold face, italics, underlining, and a variety of color coding or other visual effects will not translate in your e-mail messages.
- **Humor Note:** Despite the best of intentions, jokes and especially satire can easily get lost or taken seriously. If you feel the need for humor, you may wish to add "emoticons" to help alert your readers: ;-), :), J

Disclaimer Statement

Course content may vary from the outline to meet the needs of this particular group.

Academic Services

The Online Library is available to enrolled students and faculty from inside the electronic campus. This is your starting point for access to online books, subscription periodicals, and Web resources that are designed to support your classes and generally not available through search engines on the open Web. In addition, the Online Library provides access to special learning resources, which the University has contracted to assist with your studies. Questions can be directed to **librarian@apus.edu**.

- *Charles Town Library and Inter Library Loan:* The University maintains a special library with a limited number of supporting volumes, collection of our professors' publication, and services to search and borrow research books and articles from other libraries.
- *Electronic Books:* You can use the online library to uncover and download over 50,000 titles, which have been scanned and made available in electronic format.
- *Electronic Journals:* The University provides access to over 12,000 journals, which are available in electronic form and only through limited subscription services.
- *Tutor.com*: AMU and APU Civilian & Coast Guard students are eligible for 10 free hours of tutoring provided by APUS. Tutor.com connects you with a professional tutor online 24/7 to provide help with assignments, studying, test prep, resume writing, and more. Tutor.com is tutoring the way it was meant to be. You get expert tutoring whenever you need help, and you work one-to-one with your tutor in your online classroom on your specific problem until it is done.
- *Disability Accommodations*: Students are encouraged email dsa@apus.edu to discuss potential academic accommodations and begin the review process.

Request a Library Guide for your course ([http://apus.libguides.com/index.php)](http://apus.libguides.com/index.php)

The AMU/APU Library Guides provide access to collections of trusted sites on the Open Web and licensed resources on the Deep Web. The following are specially tailored for academic research at APUS:

- Program Portals contain topical and methodological resources to help launch general research in the degree program. To locate, search by department name, or navigate by school.
- Course LibGuides narrow the focus to relevant resources for the corresponding course. To locate, search by class code (e.g., SOCI111), or class name.

If a guide you need is not available yet, please email the APUS Library: [librarian@apus.edu.](mailto:librarian@apus.edu)

Turnitin.com

Faculty may require assignments be submitted to Turnitin.com. Turnitin.com will analyze a paper and report instances of potential plagiarism for the student to edit before submitting it for a grade. In some cases professors may require students to use Turnitin.com. This is automatically processed through the Assignments area of the course.

University Policies

[Student Handbook](#)

- [Drop/Withdrawal policy](#)
- [Extension Requests](#)
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- [Appeals](#)
- [Disability Accommodations](#)

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