

Excel Analytics: Tools and Techniques BSMG6210

Course Outline SAMPLE

Description:

Develop a strong Excel skillset so you can effectively manage large amounts of data in any industry. Learn how to organize, understand, and extract value from the data that your organization generates. Apply your newly developed skills to a wide range of datasets.

Instructor: TBA

Instructor Contact Information: TBA

Course Goals: To develop a skill set that will allow participants to:

1. Go beyond the basics of Excel
2. Apply the skills to a range of datasets
3. Present the data

Course Objectives: At the completion of this course, the student will be able to:

- Work with a range of the more advanced features and functions within Excel
- Apply Excel skills to a wide range of professional and personal situations
- Apply these skills to allow students to:
 - Identify the issues and opportunities
 - Do the analysis
 - Tell the story/Make the recommendations
- Explore how Excel can be used in the 4 main analytics' approaches:
 - Descriptive Analytics
 - Diagnostic Analytics
 - Prescriptive Analytics
 - Predictive Analytics

Course Topics Include:

- Pivot Tables
- Lookup Functions – VLOOKUP, HLOOKUP, XLOOKUP, INDEX/MATCH
- Advanced Functions – SUMIF(S), COUNTIF(S), AVERAGEIF(S), TEXT Functions
- Working with Tables
- Descriptive Statistics – Correlation, Linear Regression, Histogram
- Working with Dates
- Presenting the Data – Charting, Infographics, Dashboards
- Integrating Excel with Word and PowerPoint documents

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Evaluation: This is a graded course where a complete or incomplete be issued. In order to receive a completion for this course, a student must:

- Participate in at least 3 online discussions in the Brightspace course site (forums). Participation can include posting new ideas, articles, and questions. It can also include responding to other posts but needs to help move the discussion forward and be more than just “I agree” or “Me too” posts.
- Submit a one-page summary of your proposed Excel capstone project by the end of the 3rd class. Your project can include an example from your work or another example of interest to you.
- Prepare and submit a written capstone Excel project

The final capstone project can be based upon a topic and dataset of your own choosing or if you wish I can provide some potential topics and datasets for you to analyze. I will post a more detailed summary of the capstone report on our course site.

Policy on Cheating and Academic Misconduct:

Academic honesty is a cornerstone of conduct at Western University. We cannot have freedom of expression without integrity. Students are responsible for understanding the nature of and avoiding the occurrence of plagiarism and other academic offences; please refer to the section on “Scholastic Offences” in the current University Academic Calendar, or on the web at

<http://www.westerncalendar.uwo.ca>. Such offences include plagiarism, cheating on an examination, submitting false or fraudulent assignments or credentials, impersonating a candidate, or submitting for credit in any course any academic work for which credit has previously been obtained or is being sought in another course in this University or elsewhere (without the knowledge and approval of the instructor to whom the work is submitted). Students enrolled in non-degree courses are expected to abide by the University’s code of conduct.

Code of Student Conduct:

The purpose of the Code of Student Conduct is to define the general standard of conduct expected of students registered at Western University, provide examples of behaviour that constitutes a breach of this standard of conduct, provide examples of sanctions that may be imposed, and set out the disciplinary procedures that the University will follow. For the complete Code of Student Conduct:

<http://www.uwo.ca/univsec/pdf/board/code.pdf>.

Plagiarism:

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and Turnitin.com (<http://www.turnitin.com>).

How do I hand in assignments?

All assignments will be submitted electronically through OWL using the assignment tool. Failure to meet deadlines without the instructor’s written permission will be subject to the late assignment policy. It is the student’s responsibility to ensure that all assignments forwarded to the instructor arrive before the due date. If you experience difficulty in submitting assignments through OWL, you are responsible for contacting the instructor.

When will I receive my grades?

Final grades will be available 2 weeks after the last scheduled day of the course. A grade report can be printed from myWCS.

Course Schedule:

Week 1 – Navigating, Selecting, Sorting, Cleaning, Filtering and Formatting

- We will look at moving through the data and perform some initial formatting, arranging and filtering
- We will discuss the implications of the data we have analyzed and make recommendations as appropriate
- We will also discuss any other questions or comments that you may have

Week 2 – LOOKUP Functions, SUM(IF), COUNT(IF), AVERAGE(IF), Dates, Descriptive Statistics

- We will look at different LOOKUP (V, H, X) examples as a way of finding specific records within a large dataset
- We will go through examples of working with text and dates within Excel
- We will go through examples of some of the main descriptive statistics that Excel has available
- We will also discuss any other questions or comments that you may have

Week 3 – Working with Tables and Pivot Tables

- We will look at working with Tables in Excel. Tables have specific features and a wide range of built in functions that are very useful
- We will look at working with Pivot Tables. This is a very powerful feature of Excel and will allow you to do a wide range of analysis with the datasets you have. It also allows for a very flexible and interactive “what if” analytical approach
- We will also discuss any other questions or comments that you may have

Week 4 – Presenting the Results

- We will look at presenting your findings using Charts, Infographics, Dashboards, and Maps
- We will see how to integrate your Excel analysis into Word and PowerPoint documents

Week 5 – Bringing it all together

- This week we will work through a detailed example that brings together the material we have covered during the course
- You can use this example as a way of organizing your capstone report