ISM 3930 Data Management and Analysis with Excel

ISM 3541 – 001
CRN Number: 12345
Data Management and Analysis with Excel
Fall 2019
FL 209
Wednesday 6:30 – 9:20 pm

Professor Information

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Office Hours

Monday, Wednesday, Friday 2:00 pm to 4:00 pm

Course Description

The course focuses on managing and analyzing Big Data, and societal implications. Excel is used to learn data collection, curation, organization, analysis, visualization, pivot tables, functions, and scenarios, and automating tasks.

Course Prerequisites, Credit Hours, and Class Time Commitments

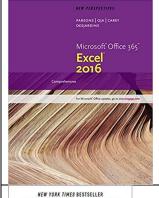
No prerequisites, 3 credit hours

Familiarity with Windows XP/Windows 10 environment and Microsoft Office applications;

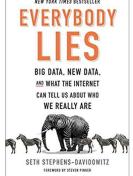
In order to complete this course, students need to work on a WINDOWS based computer, to do the lab assignments and exams in Excel. You will also need an operative web cam to take the lab exams. Apple MAC users will have difficulties, with using the MAC operating system, since they will have a slightly different version of Excel. It is advisable that a WINDOWS based computer be employed. Alternatively, these users can employ a dual boot program to run WINDOWS on the MAC. Please check system requirements. In addition, you must have access to Microsoft Office products, (specifically Excel 2016), to complete this course. If you do not, FAU provides two ways to obtain access to the necessary software. The first is as long as you are an FAU student you are entitled to install Microsoft Office 365(includes Excel 2016) on your personal computer at no charge to you. See www.fau.edu/oit/getoffice365/ for details and downloads.

The second is that FAU provides several Open Labs and computers which are available to students throughout the campus. Open Labs and hours of operation are listed on the

FAU website. http://www.fau.edu/oit/labs/open_labs/index.php for open lab locations and hours. Computers in the open lab need an operative web cam for the exams. USB Flash Drive (1GB or 2GB are recommended. These are available at the FAU Bookstore and most electronics retailers). A copy of all written assignments should be kept on a Flash Drive.



Text Book: Parsons, J and Oja, D, Carey, P, and Dejardins, C (2017) New Perspectives Microsoft Office 365 & Excel 2016; Comprehensive, Cengage Learning plus Cengage MindTap



Text Book:

Seth Stephens-Davidowitz, Everybody Lies: Big Data, New Data, and What the Internet Can Tell Us About Who We Really

ISBN-10: 0062390856 ISBN-13: 978-0062390851 Dey Street Books (May 9, 2017)

Online resources and repositories of Big

Data from various domains

Given throughout the lectures and projects

Additional Course Description. Big Data management and analysis with Excel is used in all business organizations for collecting, organizing, processing, management, analysis and presentation of data and information. Every professional who works with data needs to know Excel. Excel know-how can increase job prospects as well as starting salary. Hiring managers consistently are looking for Excel skills in professionals. This course will teach the student from any field and level how to work with Excel to solve business, scientific, or any type or problems that deals with data. This course also aims to give foundations for students to prepare to take the Microsoft Excel certification, another important achievement valued by employers.

Course Learning Objectives

- 1. To gain basic knowledge and appreciation of Big Data management and analysis and extract actionable knowledge from Big Data
- 2. To learn the basic principles of Excel spreadsheet management and data analysis

- 3. To learn the basic Excel skills for charting, pivot tables, visualization, scenarios, functions, handling automating repetitious business task, conducing automatic analysis of complex business scenarios, integrating data from multiple workbooks, accessing data from databases such as Access, etc.
- 4. To apply the learned skills to Big Data from the domain of the student's major and specialization

Grading Scale

Grade	Final Score	
A+	97-100	
Α	93-96	
A-	90-92	
B+	87-89	
В	83-86	
B-	80-82	
C+	77-79	
С	73-76	
C-	70-72	
D+	67-69	
D	63-66	
D-	60-62	
F	0-59	

Course Evaluation Method

Midterm Exam – 15%: The Midterm exam will be open-book, open-notes with questions that require you to manipulate and analyze data with Excel on the computer during the test time.

Final Exam – 15%: The final exam will be open-book, open-notes with questions that require you to manipulate and analyze data with Excel on the computer during the test time. The material from the whole semester will be covered in the Final exam

Excel Assignments – 70% (10% per assignment): You will be given seven Excel assignments during the semester and each student should complete the assignment within two weeks independently. Mandatory oral exams on the assignment will be administered either in office or over the Internet and these who fail the oral exam will be given a second chance within one week to make another attempt. However, student who fails the first try will get maximum 70% of the points for the assignment.

Additional Course Policies

Missing Exams

If you are unable to take an exam due to an emergency, you must inform the instructor of that fact on or before the day of the exam and arrange for a make-up to be administered before the graded exam is returned to the class. Any student requiring a make-up has to document his/her excuse (e.g., a letter from a physician written on the physician's letterhead, University-approved activities). Please note that in no event will a make-up test be given after the graded exam is returned to the class.

Late Assignments

Late assignment submitted within two (2) days of due date will incur a 10% penalty. Assignments after the two day period will not be accepted—no exception!

Anti-plagiarism Software

Written components of any assignment or project may be submitted to anti-plagiarism software to evaluate the originality of the work. Any students found to be submitting work that is not their own will be deemed in violation of the University's honor code discussed above.

Course Outline and Weekly schedule

Week	Topic	New	Everybody Lies Textbook Chapters
		Perspectives	
		Module	
1	Importance of Big	1	PART I: Data Big and Small
	Data. Overview of		PART II: THE POWERS OF BIG DATA
	Excel		2. Was Freud Right?
			3. Data Reimagined
2	Formatting Text and	2	Bodies as Data
	Data		Words as Data
			Pictures as Data
3	Formulas and	3	5. Zooming In
	Functions		What's Really Going On in Our Counties, Cities,
4	Charting	4	and Towns?
			How We Fill Our Minutes and Hours
			Our Doppelgangers
			Data Stories
5	Workbook and 3D	6	
	references		
6	Advanced Functions 1	8	PART III: BIG DATA: HANDLE WITH CARE
7	Advanced Functions 2	8	Big Data, Big Schmata? What It Cannot Do
8	MIDTERM EXAM		The Curse of Dimensionality
9	Developing	7	The Overemphasis on What Is Measurable
	applications		
10	Tables and	5	Part 4. Digital Truth Serum. Can We Handle the
	PivotTables		Truth?
11	Text Functions	Арр. А	
12	What-If Analysis 1	10	All the World's a Lab
13	What-If Analysis 2	10	The ABCs of A/B Testing
			Nature's Cruel—but Enlightening—Experiments
14	Import and Export	12	
15	Implications for		Mo Data, Mo Problems? What We Shouldn't Do
	Society. Final exam		The Danger of Empowered Corporations
	review		The Danger of Empowered Governments
16	FINAL EXAM		

Selected University and College Policies

Code of Academic Integrity Policy Statement

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality

education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001.

Disability Policy Statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

Religious Accommodation Policy Statement

In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices, observances, and beliefs with regard to admissions, registration, class attendance and the scheduling of examinations and work assignments. For further information, please see FAU Regulation 2.007 at:

http://www.fau.edu/regulations/chapter2/Reg%202.007%208-12.pdf

University Approved Absence Policy Statement

In accordance with rules of the Florida Atlantic University, students have the right to reasonable accommodations to participate in University approved activities, including athletic or scholastics teams, musical and theatrical performances and debate activities. It is the student's responsibility to notify the course instructor at least one week prior to missing any course assignment.

College of Business Minimum Grade Policy Statement

The minimum grade for College of Business requirements is a "C". This includes all courses that are a part of the pre-business foundation, business core, and major program. In addition, courses that are used to satisfy the university's Writing Across the Curriculum and Gordon Rule math requirements also have a minimum grade requirement of a "C". Course syllabi give individualized information about grading as it pertains to the individual classes.

Incomplete Grade Policy Statement

A student who is passing a course, but has not completed all work due to exceptional circumstances, may, with consent of the instructor, temporarily receive a grade of incomplete ("I"). The assignment of the "I" grade is at the discretion of the instructor, but is allowed only if the student is passing the course.

The specific time required to make up an incomplete grade is at the discretion of the instructor. However, the College of Business policy on the resolution of incomplete grades requires that all work required to satisfy an incomplete ("I") grade must be completed within a period of time not exceeding one calendar year from the assignment of the incomplete grade. After one calendar year, the incomplete grade automatically becomes a failing ("F") grade.

Withdrawals

Any student who decides to drop is responsible for completing the proper paper work required to withdraw from the course.

Grade Appeal Process

A student may request a review of the final course grade when s/he believes that one of the following conditions apply:

- There was a computational or recording error in the grading.
- Non-academic criteria were applied in the grading process.
- There was a gross violation of the instructor's own grading system.

The procedures for a grade appeal may be found in <u>Chapter 4 of the University</u> Regulations.

Disruptive Behavior Policy Statement

Disruptive behavior is defined in the FAU Student Code of Conduct as "... activities which interfere with the educational mission within classroom." Students who behave in the classroom such that the educational experiences of other students and/or the instructor's course objectives are disrupted are subject to disciplinary action. Such behavior impedes students' ability to learn or an instructor's ability to teach. Disruptive behavior may include, but is not limited to: non-approved use of electronic devices (including cellular telephones); cursing or shouting at others in such a way as to be disruptive; or, other violations of an instructor's expectations for classroom conduct.

Faculty Rights and Responsibilities

Florida Atlantic University respects the right of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions which do not impede their exercise. To ensure these rights, faculty members have the prerogative:

- To establish and implement academic standards
- To establish and enforce reasonable behavior standards in each class
- To refer disciplinary action to those students whose behavior may be judged to be disruptive under the Student Code of Conduct.

Counseling and Psychological Services (CAPS) Center:

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological

Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to http://www.fau.edu/counseling/

Bibliography

Foster Provost, Tom Fawcett, Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking 1st Edition, ISBN-13: 978-1449361327 ISBN-10: 1449361323, O'Reilly Media; 1 edition (August 19, 2013)

Monk, Brady, Mendelson, Problem Solving Cases in Microsoft Access and Excel, 15th ed., Cengage, 2017, 9781337101332

Gottlieb, Next Generation Excel, 2nd ed., Wiley, 2013, 9781118469101

Winston, Microsoft Excel 2016:L Data Analysis and Business Modeling, Microsoft Press, 2016, 9781509304219

Ferrari, Russo, Analyzing Data with Power BI and Power Pivot for Excel, Microsoft Press, 2017, 978-1509302765

Walkenbach, Excel 2016 Bible, Wiley, 2015, 978-1119067511

Alexander, Kueslika, Excel 2016 Power Programming with VBA, Wiley, 2016, 978-1119067726

Harvey, Excel 2016 All-in-One For Dummies, 2015, 978-1119077152

Frye, Microsoft Excel 2016 Step by Step, Microsoft Press, 2015, 978-0735698802

Jelen, Excel 2016 Step by Step, Que, 2015, 978-0789755841

McFedris, Excel 2016 Formulas and Functions, Que, 2015, 978-0789755643

Jelen, Alexander, Excel 2016 Pivot Table Data Crunching, Que, 2015, 978-0789756299