University of Florida
College of Public Health & Health Professions Syllabus
HSA 6395, section 2181: Healthcare Data Analytics I (3 credit hours)
Fall: 2017
Delivery Format: On-Campus
Course Website available in Canvas

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Preferred Course Communications: Message in Canvas

PURPOSE AND OUTCOME

Course Overview
This course is intended to provide an introduction to statistical analysis for Health Administration for MHA students. It is intended to acquaint (*or re-acquaint*) you with the basic concepts and procedures used in analyzing healthcare data. You will be introduced to the use of data analytics to facilitate decision-making tasks involved in the management of healthcare delivery processes.

Course Objectives and/or Goals
This course is designed to instruct students on the following:

Course Objectives	Competencies Addressed
Describe the basic terminology and concepts of univariate, bivariate, and multivariate statistics	Continually scan and interpret key trends and activities in the health care environment
Utilize Microsoft Excel to aid in analysis, description, and presentation of statistical data and results	Measure and improve clinical and organizational performance and as needed redesign organizational systems and processes
Discuss appropriate ways to read, produce, present, and interpret data analytic reports	Use statistical and analytical tools to measure and improve organizational performance.
Determine an appropriate technique for a given set of variables and questions	Identify and effectively use appropriate communication vehicles based on audience characteristics and communication goals
Explain the differences among various analytical techniques	
Propose answers to strategic or operational questions using basic analytic techniques	
Specify examples of how quantitative methods can be applied in health services	

Instructional Methods
- Lecture

Disclaimer: ***This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.***

DESCRIPTION OF COURSE CONTENT

Course Materials and Technology
Required Materials:
- *Statistics for Health Care Management and Administration: Working with Excel, 3rd Edition.* John F. Kros, & David A. Rosenthal; Jossey-Bass, 2016.
- Course reading distributed by instructor
- A computer with Excel capabilities (version 2010 or later)

Optional Materials:
A Practical Approach to Analyzing Healthcare Data, 3rd Edition. Susan White; American Health Information Management Association, 2016.

For technical support for this class, please contact the UF Help Desk at:
- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- https://lss.at.ufl.edu/help.shtml

Topical Outline/Course Schedule (*Red = Student Team Run Presentation)

Date	Topic	Reading	Assignment
Aug 22	Classes Begin - Welcome and introduction to the class		
Aug 29	Data Analytics Overview		
Sep 5	Types and Sources of Healthcare Data		
Sep 12	Statistics and Excel	K&R Ch. 1	K&R Chapter 1 exercises
Sep 19	Excel	K&R Ch. 2	K&R Chapter 2 exercises
Sep 26	Data acquisition	K&R Ch. 3	K&R Chapter 3 exercises
Oct 3	Data Display	K&R Ch. 4	K&R Chapter 4 exercises
Oct 10	Measures of Central Tendency	K&R Ch. 6	K&R Chapter 6 exercises
Oct 17	Hypothesis testing	K&R Ch. 7	K&R Chapter 7 exercises
Oct 24	t test	K&R Ch. 9	K&R Chapter 9 exercises
Oct 31	Analysis of Variance (ANOVA)	K&R Ch. 10	K&R Chapter 10 exercises

Nov 7	Simple Regression	K&R Ch. 11	K&R Chapter 11 exercises
Nov 14	Project work/ Q and A		
Nov 21	Team presentation		Group 1 and 2
Nov 28	Team presentation		Group 3 and 4
Dec 5	Team presentation		Group 5 and 6
Dec 12	Final Project Due		

ACADEMIC REQUIREMENTS AND GRADING

Assignments
All assignments should be submitted on time as per instructions on e-learning.

Grading
Assignments and assessments are opportunities for you to demonstrate understanding of the principles and procedures covered in class. Grades will be based on the following criteria:

Requirement	% of final grade
Textbook assignments	30%
Attendance and participation	10%
Team Presentations on Healthcare Analytics	30%
Final Project	30%

Point system used (i.e., how do course points translate into letter grades).

Points earned	95 or more	90 - 94	87- 89	83 - 86	80 – 82	77 - 79	73 - 76	70 - 72	67 - 69	63 - 66	60 - 62	Below 60
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

Please be aware that a C- is not an acceptable grade for graduate students. A grade of C counts toward a graduate degree only if an equal number of credits in courses numbered 5000 or higher have been earned with an A. In addition, the Bachelor of Health Science Program does not use C- grades.

You must include the letter grade to grade point conversion table below. Letter grade to grade point conversions are fixed by UF and cannot be changed.

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	WF	I	NG	S-U
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at:
http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Policy Related to Late and Make up Work

Students are expected to complete all assignments by appropriate dates. 10% penalty for late submission, additional 10% penalty for every 24 hours.

Make-up options will be offered to students only under extenuating circumstances and through communication with the instructor. The instructor reserves the right to determine appropriate make-up options for each student.

Policy Related to Required Class Attendance
Students are expected to read the assigned text, complete all out of class assignments, be an active member of their group, and to actively participate in class discussions. Personal issues with respect to class participation or fulfillment of course requirements will be handled on an individual basis and must be communicated with the instructor with reasonable advance notice.

All faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior
Students are expected to:
- Attend all classes
- Complete reading assignments prior to class
- Participate in class discussions
- Be an active member of your group
- Exhibit professional behavior
- Limit use of electronic devices strictly to activities in support of learning environment.

Communication Guidelines
Students will be expected to communicate via the Canvas messaging system.

Academic Integrity
Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

 "**We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity**."

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

 "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:
https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/
http://gradschool.ufl.edu/students/introduction.html

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process
Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

SUPPORT SERVICES

Accommodations for Students with Disabilities
If you require classroom accommodation because of a disability, you must register with the Dean of Students Office http://www.dso.ufl.edu within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health
Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.
- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: http://www.counseling.ufl.edu. On line and in person assistance is available.
- You Matter We Care website: http://www.umatter.ufl.edu/. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: https://shcc.ufl.edu/
- Crisis intervention is always available 24/7 from:
  Alachua County Crisis Center
  (352) 264-6789
  http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Inclusive Learning Environment
Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-

Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu