University of Florida
College of Public Health & Health Professions Syllabus
HSA 6196: Healthcare Data Analytics II (3 credit hours)
Semester: Spring 2019
Delivery Format: On-Campus
Course Website available in Canvas

Instructor Name: Nicole M. Marlow, PhD, MSPH
Room Number: HPNP 3110
Phone Number: 352-273-6080
Email Address: marlownm@phhp.ufl.edu
Office Hours: by appointment

Teaching Assistant: Zhigang Xie, MPA
Room Number: HPNP 3121
Email Address: xiezhigang@ufl.edu
Office Hours: by appointment

Preferred Course Communications: Message in Canvas

Course meeting times and location:
Monday, Periods 5 - 7, 11:45 – 2:45, HPNP G114

Prerequisites: Completion of HSA 6395-Healthcare Data Analytics I

PURPOSE AND OUTCOME

Course Overview

On a day to day basis, health care managers are charged with improving costs and financial outcomes while simultaneously improving clinical and service quality. Health care organizations are being "squeezed" by declining reimbursements, while at the same time they are struggling to recruit and retain staff during a significant clinical workforce shortage. To effectively "do more with less," managers are turning to operations management in an effort to decrease costs while enhancing quality. Supply chain initiatives, quality improvement projects, and organizational restructurings are commonplace in today's healthcare environment.

Relation to Program Outcomes
HSA 6196 is designed to arm you with the practical and analytical tools required to make effective tactical and operational decisions in a health care environment. The course examines operations decisions through a combination of lectures, in-class problems, homework, and readings. Specific topics to be covered include process flow, simulation, decision-making, quality improvement, forecasting, capacity management, project management, and inventory management. A specific emphasis will be placed on learning and using new tools and technologies to solve analytic problems and then articulate solutions to those problems in managerially- understandable and actionable terms.

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

COURSE OBJECTIVES	Competency
Demonstrate an understanding of the language of management science, operations management, and systems analysis.	Perform environmental scans and needs assessment in support to program and organizational development (HEC-1).

Describe the services sector in general, and service management processes in particular, from strategic and operational perspectives.	Incorporate evidence – based approaches and external assessments in the design and implementation of programs that improve population health, and organizational, financial and clinical performance (HOP-2).
Demonstrate an understanding of the contexts in which operations management can be applied to improve quality and reduce costs in the service sector.	Implement project management techniques and systems thinking to plan and manage initiatives involving significant resources, scope and impact (BAT-1).
Apply various analytical tools and techniques to various health care problems related to quality, patient and employee satisfaction, and inventory management; and interpret the results within the context of the problem.	Evaluate clinical and organizational performance using statistical and operations management techniques and procedures (BAT-3).
Demonstrate the ability to merge both quantitative and qualitative information in decision-making.	Propose, develop, and implement strategic approaches based statistical, quantitative evaluation of clinical, financial and organizational performance (HOP-1).

Instructional Methods
- Lecture
- In-class analytics exercises, with additional work out of class, as necessary
- Student team run review sessions
- In-class discussions

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:
- *Healthcare Operations Management, 3rd Edition*. Daniel B. McLaughlin & John R. Olson; Health Administration Press, 2017.
- Course reading distributed by instructor
- A computer with Excel capabilities (version 2010 or later)

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
Jan. 7th	Welcome and introduction to the class		
Jan. 14th	Introduction to Healthcare Operations	Ch. 1, 2, 3	Discussion questions p. 15, 41, & 64 (due Jan. 28th)
Jan. 21st	MLK DAY HOLIDAY		
Jan. 28th	Strategy and the Balanced Scorecard	Ch. 4	Discussion questions p. 93, Exercises p. 94 (due Feb. 4th)

Feb. 4th	*Ch. 4 Exercises Review Primary: Team 1, Secondary: Team 10 Project Management	Ch. 5	Discussion questions p. 129, Exercises p. 129 (due Feb. 11th)
Feb. 11th	*Ch. 5 Exercises Review Primary: Team 2, Secondary: Team 9 Tools for Problem Solving and Decision Making	Ch. 6	Discussion questions p. 163, Exercises p. 164 (due Feb. 18th)
Feb. 18th	*Ch. 6 Exercises Review Primary: Team 3, Secondary: Team 8 Statistical Thinking and Statistical Problem Solving	Ch. 7	Discussion questions p. 199, Exercises p. 199 (due Feb. 25th)
Feb. 25th	*Ch. 7 Exercises Review Primary: Team 4, Secondary: Team 7 Quality Management: Focus on Six Sigma	Ch. 9	Discussion questions p. 250, Exercises p. 250 (due Mar. 4th)
Mar. 4th	SPRING BREAK		
Mar. 11th	*Ch. 9 Exercises Review Primary: Team 5, Secondary: Team 6 The Lean Enterprise	Ch. 10	Discussion questions p. 276, Exercises p. 277 (due Mar. 11th)
Mar. 25th	*Ch. 10 Exercises Review Primary: Team 6, Secondary: Team 5 Process Improvement and Patient Flow	Ch. 11	Discussion questions p. 319, Exercises p. 319 (due Mar. 25th)
Apr. 1st	*Ch. 11 Exercises Review Primary: Team 7, Secondary: Team 4 Scheduling and Capacity Management	Ch. 12	Discussion questions p. 341, Exercises p. 341 (due Apr. 1st)
Apr. 8th	*Ch. 12 Exercises Review Primary: Team 8, Secondary: Team 3 Supply Chain Management	Ch. 13	Discussion questions p. 366, Exercises p. 366 (due Apr. 8th)
Apr. 15th	*Ch. 13 Exercises Review Primary: Team 9, Secondary: Team 2 Improving Financial Performance with Operations Management	Ch. 14	Discussion questions p. 386, Exercises p. 387 (due Apr. 15th)
Apr. 22nd	*Ch. 14 Exercises Review Primary: Team 10, Secondary: Team 1 Putting it All Together for Operational Excellence	Ch. 15	Discussion questions p. 408, Case Study p. 409 (due Apr. 29)
Apr. 29th	FINAL EXAMS WEEK		

ACADEMIC REQUIREMENTS AND GRADING

Textbook Discussion Questions (30%)
Students will complete discussion questions assignments from the relevant chapter of the McLaughlin and Olson textbook. All assignments will be submitted electronically to the Assignment link in Canvas by 9:00 AM on the date they are due.

Textbook Exercises (30%)
Students will complete assignments from the relevant chapter of the McLaughlin and Olson textbook. All assignments will be submitted electronically to the Assignment link in Canvas by 9:00 AM on the date they are due.

Student Team Run Review Sessions (15%)
Students will be assigned to teams to review the completed exercises for the relevant chapter of the McLaughlin and Olson textbook, including the solutions and steps for obtaining the solutions. Please refer to the course schedule above for your team's review sessions schedule. The primary team will be scheduled to present. The secondary team will be equally prepared to present the material and will do so in the event that the primary team is unavailable.

Please note, any student who has an unexcused absence on the date of his/her team's review session will receive 0% credit for the team's review session grade. Any student who has an excused absence on his/her her team's review session date is eligible for up to 60% partial credit of the team's review session grade; however, this is conditional upon other team member feedback regarding acceptable contributions to the review session presentation materials and other necessary preparations prior to the excused absence. Further, up to 100% of the remaining 40% credit of the student's team review session grade will be available upon submission of a make-up assignment. Any student who has an excused absence and desires this make-up assignment will submit a paper encompassing a literature critique of a peer reviewed manuscript selected by the student and approved by the professor. Papers should be at least 5 pages in length, double-spaced, 12 point font, 1 inch margins. Additional specifics of the paper requirements will be made available on an as needed basis. Make-up assignments will be due by email submission to the professor and TA within two (2) weeks of the excused absence by 11:45 AM.

Student Team Case Study Report (20%)
Students will be assigned to teams to develop a case study report. See p. 409 of the McLaughlin and Olson textbook for relevant information. Specific requirements will be reviewed in class and posted to the Assignment link in Canvas. All report materials will be due by electronic submission to the Assignment link in Canvas by 9:00 AM on April 29th.

Class Attendance and Participation (5%)
Attendance will be taken during each class session, and this will be reflected in each student's final grade. Excused absences must be consistent with university policies in the Graduate Catalog (http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance) and require appropriate documentation. Additional information can be found here:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

For an absence to be considered excused based on these reasons, the TA or Course Instructor must be given notification prior to the start time of class via email or Canvas message. The time stamp of the email will be used to determine if notification was prior to the start of the class. Students who do not attend class without an approved excused absence will not receive any attendance and participation credit for that day.

Two (2) late arrivals to class will be considered the equivalent of one, unexcused class absence. Students will be allowed two (2) unexcused absences from class without affecting their attendance and participation grade.

Students are expected to read the assigned text prior to the class meeting date, complete all out of class assignments, be an active member of their group, and to actively participate in class discussions.

Grading

Requirement	% of final grade
Textbook Discussion Questions	30%
Textbook Exercises	30%
Student Team Run Review Sessions	15%
Student Team Case Study Report	20%
Attendance and Participation	5%

The total number of points earned will be transformed to letter grades as follows. Please note that there will be no rounding up for grade increments:

Points earned	95 or more	90 - 94.99	87- 89.99	83 - 86.99	80 – 82.99	77 - 79.99	73 - 76.99	70 - 72.99	67 - 69.99	63 - 66.99	60 - 62.99	Below 60
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

The letter grade to grade point conversion table is listed 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 the appropriate date/time. Students are allowed to make-up work ONLY as the result of illness or other unanticipated circumstances warranting a medical excuse and resulting in the student missing a deadline, consistent with College policy. Late assignments not resulting from one of these circumstances and not pre-arranged and approved by the student's professor will not be accepted and will not receive credit for the assignment. The professor reserves the right to determine appropriate make-up options for each student.

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance and Participation
Students are expected to read the assigned text prior to the class meeting date, complete all out of class assignments, be an active member of their group, and to actively participate in class discussions.

Excused absences must be consistent with university policies in the Graduate Catalog (http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance) and require appropriate documentation. Additional information can be found here:
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Two (2) late arrivals to class will be considered the equivalent of one, unexcused class absence. Students will be allowed two (2) unexcused absences from class without affecting their attendance and participation grade.

Policy Related to Guests Attending Class:
Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional

information, please review the Classroom Guests of Students policy in its entirety. Link to full policy:
http://facstaff.phhp.ufl.edu/services/resourceguide/getstarted.htm

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior
Students are expected to:
- Attend all classes
- Arrive on time and stay until class is dismissed
- Complete reading and homework 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 the 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