

ISM 6423: DATA ANALY/DECIS SUPP
Fall 2016 – Module 2

Instructor Liangfei Qiu–liangfei.qiu@warrington.ufl.edu
Department of ISOM, Warrington College of Business Administration
Class Time TR: period 9-10
Class Location STZ 101
Office STZ 331
Office Hours Monday 3:00 – 4:30 pm or by appointment (email 2-3 days ahead to make an appointment if you have class during office hours)
TA Wenli Wang
TA Office Hours TBA

COURSE DESCRIPTION

Plato's Allegory of the Cave (c.380 BCE)

SOCRATES: And now, I said, let me show in a figure how far our nature is enlightened or unenlightened: – Behold! human beings living in a underground cave, which has a mouth open towards the light and reaching all along the cave; here they have been from their childhood, and have their legs and necks chained so that they cannot move, and can only see before them, being prevented by the chains from turning round their heads. Above and behind them a fire is blazing at a distance, and between the fire and the prisoners there is a raised way; and you will see, if you look, a low wall built along the way, like the screen which marionette players have in front of them, over which they show the puppets.

GLAUCON: I see.

SOCRATES: And do you see, I said, men passing along the wall carrying all sorts of vessels, and statues and figures of animals made of wood and stone and various materials, which appear over the wall? Some of them are talking, others silent.

Data is always an imperfect shadow of the real world. Data analytics is a methodology that allows a direct dialogue between real world and managerial insights; it allows us to think in rigorous way about vast amounts of searchable data we observe. Extensive interviews with executives from successful firms find that companies today require decision makers who understand the value of analytics, can identify opportunities and know how best to apply data analytics to enhance business performance.

ISM 6423 will focus on five broad issues: (1) regression analysis, (2) collaborative filtering, (3) fixed effects models, (4) survival analysis, and (5) social network analysis. Students will know the basics of data analytics and how they can be applied to interact effectively with CTOs, expert data miners, and business analysts.

TEXTBOOK AND READINGS

Required Textbook Data Mining Techniques, Third Edition by Michael Berry and Gordon Linoff, Wiley, 2011, ISBN: 978-0-470-65093-6.

Prerequisite: ISM 6405

Class Website Announcements, assignments, course schedule, additional readings, and other information are available on Canvas at <https://ufl.instructure.com/>.

You will also need the data analysis and statistical software, STATA. It is free at <https://info.apps.ufl.edu/>.

WORKLOAD

Welcome to the Warrington College of Business Administration, where everyone admitted – including you – is a top student. In order to challenge you and truly add to your education, the Warrington College of Business Administration is committed to rigorous, cutting-edge classes. This means that you can expect a substantial workload.

Our goal is to help you go beyond being a top student. Our vision is that you will become a productive employee, an effective project leader, a future division leader, perhaps a future CEO. Some of you will work in traditional companies; some will work for nonprofits; some will become professional business consultants; some will grow a family business or start your own successful business. All these career paths have something in common: to succeed in a constantly changing business world, you must constantly seek new information from the environment, make sense of it with your colleagues and business partners, and act on it to develop and implement your business strategy. You must be able to think critically.

In order to think critically, you need a knowledge base. A significant part of ISM6423 involves reading, learning, and practicing. Learning these base concepts will give you a foundation for thinking critically and solving real business problems. The goal of ISM6423 is to deliver learning that will serve you in the future, both at UF and in your career.

EVALUATION OF YOUR PERFORMANCE

The final letter grade in the class will be based on a curve. You may expect the following grade distribution: approximately 40-45% will receive an A- or above, about 5% will receive a C+ or below, and 45-60% will receive a B+, B, or B-. However, the grade distribution and the average could change if the overall class performance exceeds the instructor's expectations.

The breakdown of your final grade is as follows:

Deliverable Detail	Points
Class Participation and In-class Quizzes	40
Assignments (2 assignments, 25 points each)	50
Exams (2 exams, 150 points each)	300
Group Project (Proposal + Presentation + Final Paper)	110
Total Points	500

1. Class Participation

To get the most from this class, it is important that you come to class ready to join the discussion on the day's topic. You are expected to read all the assigned reading materials before class, behave properly in the class room, and contribute actively to the class discussion. Please use a name card to help the instructor and your peers remember your name. Sitting roughly at the same spot in each class could help speed up this process. When evaluating class participation, I keep the criteria as follows:

- Attending class regularly
- Displaying positive behaviors such as active listening to the instructor and peers, asking insightful questions, responding to questions, synthesizing others' ideas, bringing appropriate real-life experiences, and disagreeing constructively

2. Quizzes

Occasionally, there will be quizzes given on class content.

3. Assignments

IT skills for individual productivity will be a necessity for any business professionals in their careers. To help students master basic data analytics skills, there are TWO homework assignments. Those assignments will simulate real-life tasks and ask students to solve them by using the designated tools. Specific details for these assignments will be posted on Canvas.

4. Exams

There are **two** in-class exams (see Course Schedule for details). An exam review session will be provided before each exam. Exams will combine multiple-choice and essay format questions. Unless under significantly extreme circumstances, make-up exams will NOT be arranged. ***The extreme emergency must be approved by the instructor BEFORE the exam date.***

5. Group Project

The class will have a group project. A group of up to **Four** students can work together on the project. The detailed description for this project will be given later in the module.

6. Changes

This course will be very dynamic, so EXPECT changes. Changes in schedules will be posted on course website. It is the student's responsibility to keep up with the changes that are posted on course website.

7. Extra Credit

Additional extra credit assignments may be offered to the entire class at the discretion of the instructor. There will be no opportunity to raise your course grade by doing individual extra credit work at any point during or after the semester, as this would violate University policy.

POLICIES

Fairness, Deliverable Deadlines, and Time Management

Deliverables are assigned because work outside of class supplements and reinforces learning. Deliverables are also due at designated times and in specific formats, all of which will be described in assignment criteria. To be fair to everyone in class and to get assignments graded and returned in a timely fashion, we have to have deadlines. Please turn things in on time.

- Deliverables handed in *after* but *within 24 hours* of the due date/time will receive half credit.
- Deliverables will not be accepted more than 24 hours after the due date.

Re-Learning on Assignments and Exams

Asking questions after your exams and assignments have been graded reinforces learning and helps you understand your strengths and weaknesses with course material. Therefore, I encourage you to meet with me to discuss assignments. However, you must do so within ONE WEEK of the day the homework is returned or grades are posted. After *the one-week window, your grade for an assignment cannot be changed.*

Classroom policy

Please also **turn off** your mobile phones and other electronic devices to avoid disturbing. Please arrive on time and leave after class ends. Remember that your classroom citizenship will be considered in your in-class participation grades.

Using Email for Official Correspondence to Students

Email is recognized as an official mode of university correspondence; therefore, you are responsible for reading your email for university and course-related information and announcements. You are responsible for keeping the university informed about changes to your email address. You should check your email regularly and frequently – I recommend daily– to stay current with university-related communications, some of which may be time-critical.

Documented Disability Statement

Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

ISOM Department Policy on Honor Code Violations

For any academic class activity, students must follow the University of Florida Student Honor Code (<http://www.dso.ufl.edu/students.php>). Any violation of the code will automatically result in a failing grade (E) for this course and you will be reported to the Office of the Dean of Students. The Dean of Students might impose further sanctions, such as suspension or expulsion.

ISM 6423 Class Schedule – Liangfei Qiu
Where to find the readings: Ch.#: Textbook chapters
 This schedule is subject to change.

Wk	Cl	Date	Class	Readings	Deliverables
1	1	T Oct 25	Course Introduction		Course Survey
	2	Th Oct 27	Data Visualization and Regression Analysis	Ch. 4, Ch. 6	
2	3	T Nov 1	Hypothesis testing (Assignment 1)	Ch. 4, Ch 6	
	4	Th Nov 3	Panel Data Method		Group formation due in hard copy at the beginning of class
3	5	T Nov 8	Limited Dependent Variable Models and Exam #1 Review	Ch. 6	Assignment 1 due in hard copy at the beginning of class
	6	Th Nov 10	Exam #1		
4	7	T Nov 15	Fixed Effects Models (Assignment 2)		
	8	Th Nov 17	Link Analysis (Social network analysis)	Ch. 10	One-page proposal due at the beginning of class
5	9	T Nov 22	Wisdom of Crowds and Business Analytics	Ch. 16	
	10	Th Nov 24	No Class – Thanksgiving Holiday		
6	11	T Nov 29	Collaborative filtering and Exam #2 Review	Ch. 9	Assignment 2 due in hard copy at the beginning of class
	12	Th Dec 1	Project Presentation		
7	13	T Dec 6	Project Presentation		Final paper due in hard copy at the beginning of class
	14	Th Dec 8	Exam #2		