**MIT 5602**

**Management Information Systems**

**Monday, 6:00 pm-9:30pm**

**Adams Hall 3208**

**Instructor:**

Jonathan Ye, Ph.D.

Associate Professor, Michael F. Price College of Business

Adams Hall 3234 (Main Campus)

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Course website: https//canvas.ou.edu/

**Office Hours:**

Tuesday/Thursday: 1:00-2:00 pm; [Zoom link](https://oklahoma.zoom.us/s/3613462220?pwd=ZEx6RWpHWVdyMDgvQzk5eU92S1k0QT09%20#success); Or appointment by email

Monday/Wednesday: 11:00 am-12:00 pm (by TA Andy Xing [xingqidi@ou.edu](mailto:xingqidi@ou.edu) )

**Syllabus Changes:**

This syllabus is subject to change based on the needs of the class. Any changes in the syllabus will be announced in class and posted on Canvas. However, it is the student’s responsibility to review the syllabus for changes each week.

**Course Objective**

This course examines the role of information technology, and its management, in supporting an organization's (internally- and externally focused) operations and strategies. Particular attention is given to issues associated with the funding and building of business and technology architectures to enable efficient, effective, and adaptable operational, tactical and strategic actions.

In this course, we will cover five major topics:

* Basics of information systems
* Python programming basics
* Data and Information
* Business analytics
* Emerging technology

**Course Materials**

1. Al Sweigart, Automate the Boring Stuff with Python, 2015, No Starch Press, ISBN-10: 1593275994. A free online edition of the textbook is available under a Creative Commons license:

<https://automatetheboringstuff.com>

2. Other additional materials will be made available in Canvas.

**Note:** I expect everyone to have read all assigned materials prior to class. Questions for the quizzes and final exam will largely reflect the issues addressed in the reading and associated class discussion and exercises.

**Technical Requirement**

You need (1) a laptop, and (2) wireless Internet connection in class. We will use laptops regularly in the classroom. Given the nature of this course, you should bring a well-functioning laptop with the following software installed to each class.

1. **Anaconda** will be used for our Python programming. Anaconda has Jupyter notebook and Python. You only need to download Anaconda at:

Windows: https://www.anaconda.com/download/#windows

MacOS: https://www.anaconda.com/download/#macos

1. **Power BI**. We will use Power BI for the analytics/visualization lab. OU students have free access to Power BI. Details regarding how to download and use Power BI will be available in Canvas.

**Grading**

Various forms of activities can be used in the course:

|  |  |
| --- | --- |
| Final exam | 25% |
| Group project | 20% (1 project) |
| Quizzes | 24% (4 quizzes, 6% each) |
| Lab reports | 21% (3 reports, 7% each) |
| Participation | 10% |
| **Total** | **100%** |

**Final Exam (25%)**

A final exam will be administered in the last class of the course.

**Group project (20%)**

We have one group project on emerging technology. Each group consists of around 6 to 8 people. The group will work together on a project about emerging technology. The deliverables will be a report and an in-class presentation. Details will be available in class.

**Quizzes (24%, 4 quizzes, 6% each)**

Four in-class quizzes will be administered. Each quiz takes up to 20 minutes.

**Three lab reports (21%, 3 reports, 7% each)**

We will have three labs. For each lab, the student needs to complete the lab and turn in a short lab report. Details about the lab reports will ab available in class. Each report is due in each week.

**Participations (10%)**

Participation is essential for this course. Therefore, a significant factor in determining grades will be the degree to which you participate in class.

The Participation grade is computed as follows:

Attendance – 60%, Active participation in class activities – 30%, Professionalism – 10%.

10% of your participation points will be deducted for each absence, failure to participate in labs and other class activities, and deficiencies in professionalism (such as improper laptop use, talking in class, arriving late, or leaving early, etc.). Only if a student is attending a university-sponsored event or having well-documented illness will be excused. To get a full participation score, you also need to participate in class activities and discussion very actively.

**Grading will be based on a standard scale: (A=90+, B=80+, C=70+, D=60+, F=60-)**

Dealing with the "Free-Loader" Problem

As a large portion of your grade is linked to teamwork, the potential for "free-loading" does exist. If it does arise, the following steps must be taken:

* Groups must directly and openly confront instances of such behavior as early as possible. Ideally, once confronted, the behavior will cease, and no further steps will be required.
* If early group efforts to confront the problem fail, team members must let me know as soon as possible that a problem exists. I will schedule a meeting with all group members to discuss the problem and its causes. Hopefully, the behavior will then cease, and no further steps are required. This meeting must take place early in the module.

There is little I can do if groups delay letting me know about a problem with only one or two weeks left in the course. What I can and will do is adjust the ‘group’ portion of each individual grade as explained below to account for relative individual contributions to a group’s efforts.

Peer Evaluations

Peer evaluations are confidential and won't be shared with anybody. Your peer evaluation score will be calculated as the average of every team member assessment including your own. Failure to provide peer evaluation will result in a 0 for your peer evaluation (this will significantly reduce your calculated average). The total points for the project will be adjusted based on this score. Here is how the peer evaluation score will influence your total for the project:

* 7-10 points - - no change to final team score
* 4-6 points - - final team score will be multiplied by 0.9
* 1-3 points - - final team score will be multiplied by 0.8

**Incomplete Grade**

A grade of “I” (for incomplete) will not be given under normal circumstances. Not performing well in class, not being able to complete an assignment in time or being out of town during a test are inadequate reasons for requesting or granting an incomplete. Only circumstances beyond your control (such as a severe illness), which will need to be documented, may warrant a grade of “I”.

**Weekly Schedule**

**(Note: The content of this schedule is subject to changes throughout the semester)**

|  |  |  |  |
| --- | --- | --- | --- |
| **W** | **Schedule/Topic** | **Text** | **Notes** |
| 1 | * Course Introduction * Initial discussion: What is an information system? | * Syllabus * Discussion: what are information systems? | Installation of Anaconda |
| 2 | Python programming   * Variables, *if /else* statements, and (*while* and *if*) loops. | **Required reading:**  Sweigart: Chapter 1 and Chapter 2 | * Groups formed |
| 3 | Labor day (No class) |  |  |
| 4 | Python programming   * Lists and dictionaries | **Required Reading:**  Sweigart: Chapter 4 and Chapter 5 | * In-class Quiz 1 (Python) |
| 5 | * Data and information * Basic System:   Database Systems & Concepts (DBMS)   * Lab on Relational database using Python SQLite. | **Required Reading:**  [What is a database](https://www.lifewire.com/what-is-a-database-1019737)  [Databases for Beginners](https://www.lifewire.com/databases-for-beginners-1019643):  [relational database](https://www.lifewire.com/relation-definition-1019260), [primary key](https://www.lifewire.com/primary-key-definition-1019179),  [foreign key](https://www.lifewire.com/foreign-key-definition-1019255), [query](https://www.lifewire.com/query-definition-1019180), [SQL,](https://www.lifewire.com/what-is-sql-1019769) [SQL Select statement](https://docs.microsoft.com/en-us/previous-versions/sql/sql-server-2005/express-administrator/bb264565(v=sql.90)?redirectedfrom=MSDN)  **Python SQLite:**  [SQLite introduction](https://docs.python.org/3/library/sqlite3.html) | * In-class Quiz 2 (Python) * Lab report 1 due |
| 6 | * Business Intelligence & Analytics * Lab: Power BI | **Required Readings:**  •(Book chapter) Turban et al,  chapter\_introduction  •Others | * Lab report 2 due * In-class Quiz 3: Database |
| 7 | * Group Presentation (Emerging technologies) * Review for final exam | Optional readings (available on Canvas):   * Case: IoT Garage Door Opener Case Study * How blockchain technology could change our lives * Blockchain as Radical Innovation Case Study * Internet of Things Convenience vs privacy * [What Digital Transformation Means for Business (video)](https://sloanreview.mit.edu/article/video-what-digital-transformation-means-for-business/) * [Leading your company’s Digital Transformation (video)](https://sloanreview.mit.edu/article/video-leading-your-companys-digital-transformation/) | * In-class Quiz 4: Analytics * Lab report 3 due * Group project presentation (emerging   technology) |
| 8 | * Final exam |  |  |

**University Policies and Resources**

I expect everyone to abide the university’s honor code:

*“On my honor, as a student at the University of Oklahoma, I affirm that I will neither give nor receive inappropriate aid in the completion of any academic exercise. I understand that it is my responsibility to comply with the Academic Misconduct Code.”*

Reasonable Accommodation Policy:

*"The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the professor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173.”*

Religious Holiday Policy:

*"It is the policy of the University to excuse the absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required classwork that may fall on religious holidays."*

OU Resources on Copyright and Piracy:

<http://www.ou.edu/content/ouit/security/copyright.html>

Adjustments for Pregnancy/Childbirth Related Issues:

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact me as soon as possible to discuss. Generally, modifications will be made where medically necessary and similar in scope to accommodations based on temporary disability. Please see [www.ou.edu/content/eoo/faqs/pregnancy-faqs.html](http://www.ou.edu/content/eoo/faqs/pregnancy-faqs.html) for commonly asked questions.

Title IX Resources

For any concerns regarding gender-based discrimination, sexual harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a variety of resources, including advocates on-call 24/7, counseling services, mutual no contact orders, scheduling adjustments and disciplinary sanctions against the perpetrator. Please contact the Sexual Misconduct Office 405-325-2215 (8-5, M-F) or OU Advocates 405-615-0013 (24/7) to learn more or to report an incident. Additional information can be found at: <http://www.ou.edu/content/eoo.html>