Department of Information Systems & Operation Management
MIS 410: Management Support Systems
First Semester 2023-24 (231)

Instructor Name	Office	Email & MS Tams	Time	Location
Mohmmed Alsubaie	*24/130*	malsubaie@kfupm.edu.sa	Class: M.W. 2:00 -2:50 pm Lab: W 3:20-5:10 pm	24/180 24/278

Course Description:

Introduction to Management Support Systems (MSS): Decision Support Systems, Group Decision Support Systems, Executive Support Systems, Expert Systems, and Neural Networks. Tools and techniques for developing and using these systems. Integration of MSS. Team projects to develop MSS.
Prerequisite: MIS 311

Textbook:

Sharda, R., Delen, D., and Turban, E. (2021). Analytics, Data Science, & Artificial Intelligence– Systems for Decision Support, 11th Edition, Pearson Education Global Edition.

Learning Outcomes:

After completing this course, students are expected to possess the following knowledge and skills:

- Be able to design and use DSS and ES systems
- Develop the skill of how to solve a business problem using different MSS
- Utilize Management Support Systems
- Be aware of the utilization of AI applications in business
- Apply Management Support Systems techniques and technologies in enhancing the managerial decision making in organizations.

Attendance:

1. All students must attend classes on time. Coming in late disrupts class and is distracting to learning environment. Students who come late or leave before class ends will be marked absent.
2. As per the University regulations all students are expected to attend each and every class and laboratory sessions. Six unexcused absences will result in a DN grade in the course. For details, refer to the Undergraduate Bulletin. Also, **for every one unexcused absence beyond two unexcused absences, one percentage (1%) will be deducted from your final grade**. If a student leaves before the class ends, he will be considered absent.
3. In order to qualify for an excused absence, students must submit the scanned official document via e-mail to the instructor in one week from their absences. Unofficial excuses will not be accepted.

Course Policy and Regulations:

1. All mail communications must be via Course Messages of the BB.
2. Issues discussed in the textbooks, assignments, handouts, and lectures are subject to be in the quizzes/exams.
3. All reading assignments (chapters and handouts) are to be read prior to class on the day they are assigned. You are expected to participate actively in the discussions in the classes, and points will be awarded for active class participation.
4. Students should submit Assignments/Projects on the due date as announced by the instructor.
5. You must always endeavor to provide a complete and satisfactory solution, but if you are unable to do so, at least deliver the work you have managed to complete on time.
6. All submissions must be done using computer based tools like word processors (using 12 points font and double space lines), spreadsheets etc. Neatness, format organization, clarity and readability will be largely considered in determining grades. No late submissions will be accepted. A lower grade will be the consequence of failing to make the deliveries within the deadline. No excuses are considered or accepted.
7. You may consult with your colleagues in approaching and designing the solution, however, the final submission must be your own effort. Project and homework assignments are self-dependent and you will receive extremely little or no assistance from your instructor for completing the assignments.
8. Any issue regarding in-class assignment, quiz, or homework must be reported to instructor within 7 days after submission due date.
9. No makeup in-class assignment, quiz, and exam are made.
10. Cheating will result in an "F" grade in the course, and further disciplinary action will be pursued.

Course Evaluation:

Item	Percentage
Midterm Exam	20%
Final Exam	25%
Quizzes	15%
Lab Assignments	10%
Group project	20%
Attendance & Class participation	10%
Total	100%

Grading Scale

≥ 95	≥ 90	≥ 85	≥ 80	≥ 75	≥ 70	≥ 65	≥ 60	< 60
A+	A	B+	B	C+	C	D+	D	F

Exams:
- Midterm Exam: Chapters 1, 2, 3, and 4
- Final Exam: Chapters 5, 8, 11, 12, and 14

Quizzes: There will be four quizzes. There are no makeup quizzes. Quizzes will be held during the class or lab time.

Lab Assignments: Lab assignments will be assigned during the Lab.

Group Project: Students will work in groups of 3 members. Each group will select a leader. It is expected that each group member would equally participate on the project. Each group is requested to develop a solution for a business problem using analytics tools that you have learned in this course. The group is requested to submit and present proposal, progress report, and final report:

o   Proposal: Each group will submit a proposal for the group project. Consider the proposal as a plan for the project execution. Identify all tasks required to complete the group project, with brief description and timeline. Submit the proposal on time through the BB; prepare PPT slides and present the proposal to the class.

o   Progress Report: Each group will submit a progress report by the said deadline. The report should provide detailed descriptions of the accomplished tasks. Each group will prepare PPT slides and present the progress report to the class.

o   Final Report: The final report must be submitted by Dec 11, 2022. It should be organized as follows:
     a)   Summary (not more than 150 words)
     b)   Introduction
     c)   Objectives/business problem
     d)   Literature Review
     e)   Data Collection/Sources
     f)   Analysis and Results
     g)   Discussion & Managerial Implications
     h)   Limitations
     i)   Conclusions & Recommendations
     j)   References

o   Presentation: present an oral presentation to the class during last week of classes. A copy of the PPT slides should be submitted by Dec 13, 2022.

CLASS SCHEDULE

Week# Date	Topic	Readings
1 Aug 27	Overview of BI, Analytics, DS, and AI	Chapter 1
2 Sep 3	AI, Concepts, Drivers, Major Technologies, and Business Applications	Chapter 2
3 Sep 10	AI, Concepts, Drivers, Major Technologies, and Business Applications	Chapter 2
4 Sep 17	Nature of Data, Statistical Modeling, and Visualization	Chapter 3
5 Sep 24	Nature of Data, Statistical Modeling, and Visualization	Chapter 3
6 Oct 1	Data Mining Process, Methods, and Algorithims	Chapter 4
7 Oct 8	Data Mining Process, Methods, and Algorithms **Midterm Exam, Wednesday, TBD**	Chapter 4
8 Oct 15	ML Techniques for Predictive Analytics	Chapter 5
9 Oct 22	Prescriptive Analysis: Optimization and Simulation	Chapter 8
10 Oct 29	Prescriptive Analysis: Optimization and Simulation	Chapter 8
11 Nov 5	Group Decision Making, Collaborative Systems, and AI Support	Chapter 11
12 Nov 12	Group Decision Making, Collaborative Systems, and AI Support	Chapter 11
13 Nov 26	Knowledge Systems	Chapter 12
14 Dec 3	Knowledge Systems	Chapter 12,
15 Dec 10	Implementation Issues: Ethics, Privacy… **Group Project presentations**	Chapter 14
Final Exam TBD		