Information Systems Department

Course Syllabus

IS350 - Decision Support Systems

Catalog Description: A decision support system (DSS) is a computer system that encompasses mathematical models, informational databases and a user interface to help managers make better decisions. This course is intended to develop an appreciation of the nature of managerial business decision making as well as a working knowledge of Decision Support Systems (DSS) for facilitating the process of semi-structured decision making. Issues associated with the development of these systems are introduced, along with some of the underlying mathematical modelling techniques that provide DSS with a problem-solving capability.

Credit Hours: 3 Credit hours: 3 Lectures per week 0 Labs. per week 0 Recitation per week

Prerequisites: STAT 111- Introduction to Probability and Statistics

Course Learning Outcomes:

1. Define the concepts of decision making as a problem solving approach
2. Outline decision support models, methods, and technologies
3. Design and model decision support systems for specific applications
4. Apply operation research tools and algorithm to optimize and solve problems
5. Develop a decision support system for a specific use
6. Work effectively in groups and exercise leadership when appropriate
7. Communicate effectively in oral and written form

Major Topics:

- Introduction to DSS
- Modelling & Analysis
- Components of DSS
- Classifications of DSS (includes web-based DSS)
- Linear Programming 1
- Software application
- Simplex Method and Sensitivity Analysis
- Linear Programming Applications + Tutorial using software
- The Transportation model
- Network Models
- The Assignment model and Transshipment model
- Project Discussions

Text Books:

- Business Intelligence and Analytics: Systems for Decision Support (10th Edition). ISBN-13: 978-0133050905 , ISBN-10: 0133050904
- Operations Research: An Introduction, 8th edition, by Hamdy A. Taha, published by Prentice-Hall, 2007, ISBN:978-8120330436.

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Grading:

- The grading scale for this course is:

95 - 100	A+	Passing
90 - 94	A	Passing
85 - 89	B+	Passing
80 - 84	B	Passing
75 - 79	C+	Passing
70 - 74	C	Passing
65 - 69	D+	Passing
60 - 64	D	Passing
0 - 59	F	Failing

- Final grades will be determined based on the following components:
  . 60% Semester Work
  . 40% Final Exam
- Students may not do any additional work for extra credit nor resubmit any graded activity to raise a final grade.
- Late submissions will not be accepted for any graded activity for any reason.
- Students have one week to request the re-grading of any semester work.

Attendance Policy:

Students should attend 80% of the overall course hours taught in the semester as per the University regulations.

If a student fails to achieve this portion, he/she shall not be allowed to appear in the final exam and shall be awarded "DN" grade and repeat the course.

Cheating and Plagiarism Policy:

The instructor will use several manual and automated means to detect cheating and/or plagiarism in any work submitted by students for this course.

When a student is suspected of cheating or plagiarism, the instructor raises the issue to the disciplinary committee.

Communications:

Registered students will be given access to a section of the Learning Management System (LMS) for this course. LMS will used as the primary mechanism to disseminate course information, including announcements, lecture slides, assignments, and grades.

Communication with the instructor on issues relating to the individual student should be conducted using CIS email, via telephone, or in person.