



Information Systems Department

## Course Syllabus

### IS332 - Decision Support Systems

**Catalog Description:** This course has been designed to integrate theoretical concepts of decision support system with their practical applications found in operation research so as to teach both the theory and the practice of Information systems management and decision making. The emphasis on practice is important because in many areas of information systems theory lags practice. In fact, it is the objective of this course not only to understand the current practices but also to contribute to them. For this reason some optimization methods have been included to solve real known problems in life. The students will learn how to model problems and determine the right techniques to solve them; and be able to make the right decision.

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

**Prerequisites:** IS309 and Stat111

**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. Function effectively on teams to accomplish a common goal.
7. Present a topic in a compelling manner.

**Major Topics:**

- Introduction to DSS
- Modeling & 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



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**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.

**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.



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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 be 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.