اعتماد
NCAAA

T4

2020

Course Specifications

Course Title:	Decision Support Systems
Course Code:	MIS 311
Program:	Management Information Systems
Department:	Management Information Systems
College:	Business Administration
Institution:	Prince Sattam Bin Abdulaziz University

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Table of Contents

A. Course Identification

1. Credit hours: 5	

2. Course type

a. University ☐ College ☐ Department **x** Others ☐

b. Required **x** Elective ☐

3. Level/year at which this course is offered: 11th level/fourth year

4. Pre-requisites for this course (if any)**:**
MIS 201

5. Co-requisites for this course (if any)**:**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	60	%100
2	**Blended**		
3	**E-learning**		
4	**Distance learning**		
5	**Other**		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	48
2	**Laboratory/Studio**	12
3	**Tutorial**	
4	**Others** (specify) Practical	
	Total	60

B. Course Objectives and Learning Outcomes

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.

2. Course Main Objective
The main objective of this course is to introduce students to decision support systems (DSS), its components and characteristics. It also describes in detail the different techniques used in a DSS including data warehousing, data visualization, modeling, and data mining.

3. Course Learning Outcomes

CLOs	Aligned PLOs

	CLOs	Aligned PLOs
1	**Knowledge and Understanding**	
1.1	Describe the need for computerized support of managerial decision making, and the conceptual foundations of the decision support systems (DSS)	PLO 1.1 & PLO 1.4
1.2	List the different subsystems of a decision support system and the technology involved in these subsystems.	PLO 1.2, PLO 1.3, PLO 1.4
1.3	Recognize the value of decision support systems to individuals and organizations and report current practices in the use of decision support systems	PLO 1.1
2	**Skills :**	
2.1	Use mathematical modeling techniques	PLO 2.3, PLO 2.4
2.2	Use data mining techniques to extract knowledge from data	PLO 2.3 & PLO 2.4
2.3	Use Excel in decision making	PLO 2.2 & PLO 2.4
2.4	Model Problems and opportunities	PLO 2.2 & PLO 2.3
3	**Values:**	
3.1	Exhibit effective performance within a team environment	PLO 3.1

C. Course Content

No	List of Topics	Contact Hours
1	**Chapter 1:** An Overview of Business Intelligence, Analytics, and Decision Support	10
2	**Chapter 2:** Foundations and Technologies for Decision Making	9
3	**Chapter 3:** Data Warehousing	10
4	**Chapter 4:** Model Based Decision Making: Optimization and Multi-Criteria Systems	11
5	**Chapter 5:** Business Reporting, Visual Analytics, and Business Performance Management	9
6	**Chapter 6:** Data Mining	11
Total		**60**

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
1.1	Describe the need for computerized support of managerial decision making, and the conceptual foundations of the decision support systems (DSS)	• Theoretical teaching through lectures. • Practical teaching through class labs • Discussion boards	• MCQ, TF,FB questions • Discussion board assignments
1.2	List the different subsystems of a decision support system and the	• Theoretical teaching through lectures.	• MCQ, TF,FB questions

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	technology involved in these subsystems.	• Practical teaching through class labs	• Discussion board assignments • Projects
1.3	Recognize the value of decision support systems to individuals and organizations and report current practices in the use of decision support systems	• Theoretical teaching through lectures. • Practical teaching through class labs • Discussion boards	• MCQ, TF,FB questions • Discussion board assignments • Projects
2.0	**Skills**		
2.1	Use mathematical modeling techniques	• Theoretical teaching through lectures. • Practical teaching through class labs	• Assignments and home works. • Projects
2.2	Use data mining techniques to extract knowledge from data	• Practical teaching through class labs	• Assignments and home works. • Projects
2.3	Use Excel in decision making	• Theoretical teaching through lectures. • Practical teaching through class labs	• Excel Assignments and home works • Projects
2.4	Model Problems and opportunities	• Theoretical teaching through lectures. • Practical teaching through class labs	• Assignments and home works. • Projects
3.0	**Values**		
3.1	Exhibit effective performance within a team environment	• Class discussions • Group assignments	• Evaluation of discussions and assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Midterm exam1	5th	15%
2	Midterm exam 2	10th	15%
3	Quizzes	4th, 8th, and 10th	10%
4	Assignments	4th, 7th, and 9th	10%
5	Mini Projects	11th	10%
6	Final Examination		40%

Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :
4 office hours/week
2 academic advising hours/week

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Ramesh Sharda, Dursun Delen , Efraim Turban, "Business Intelligence and Analytics: Systems for Decision Support", Global Edition, 10/E, 2014, ISBN-10: 1292009209 • ISBN-13: 9781292009209.
Essential References Materials	• Efraim Turban & Jay E. Aronson & Ting-Peng Liang & Ramesh Sharda (2011), Decision Support & Business Intelligence Systems; Prentice-Hall, Inc, Eighth Edition. • Ramesh Sharda & all. Business Intelligence and Analytics: Systems for Decision Support, Tenth Edition (Global Edition), Pearson Education 2014. G. M. Marakas (2002), Decision Support Systems; Prentice-Hall, First Edition. • L. T. Moss, S. Atre (2003), Business Intelligence Roadmap; the Complete Project Lifecycle for Decision-Support Applications, Addison-Wesley, Fifth Edition.
Electronic Materials	• http://bistudycase.blogspot.com/2011/08/intelligence-phase.html • https://www.guru99.com/data-warehousing.html#4 • https://www.altexsoft.com/blog/enterprise-data-warehouse-concepts/ • https://www.syncsort.com/en/glossary/enterprise-data-warehouse • https://www.talend.com/resources/what-is-data-mart/ • https://www.stitchdata.com/resources/operational-data-store/ • https://www.altexsoft.com/blog/enterprise-data-warehouse-concepts/
Other Learning Materials	-

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	A laboratory with computer hardware and software
Technology Resources (AV, data show, Smart Board, software, etc.)	Blackboard software, smart board
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Latest version of the Excel software

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students	Direct
Extent of achievement of course	Quality and Development unit	Indirect

Evaluation Areas/Issues	Evaluators	Evaluation Methods
learning outcomes		
Self-assessment	Teacher	Direct
Quality of learning resources	Students	Direct

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Department Council
Reference No.	2
Date	SEP 2022

Course Specifications