

**Arab Academy for Science and Technology and Maritime Transport  
Information Systems Curriculum  
Course Syllabus**

<b>Course Code:</b> IS461	<b>Course Title:</b> Decision Support Systems	<b>Classification:</b> R	<b>Coordinator:</b> Prof. Dr. Khaled Mahar	<b>Credit Hours:</b> 3
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<b>Pre-requisites:</b> CS366	<b>Co-requisites:</b> None	<b>Schedule:</b> Lecture: 2 hours Tutorial-Lab: 2 hours		
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**Office Hours: (Room 408)  
Monday 10:30 a.m. -12:30 p.m.**

**Course Description:**

This course is focused around delivering the appropriate understanding and utilization of Decision Support Systems (DSS), and how they are used to support managerial decision-making. It covers a broad range of topics including: management support systems, Modelling and Analysis, business intelligence as well as intelligent systems. The course will concentrate on the concepts of both conventional DSS and intelligent systems and explore in-depth how those systems are used in various business occasions.

**Textbook:**

Ramesh Sharda, Dursun Delen and Efrain Turban, *Business Intelligence and Analytics: Systems for Decision Support*, Pearson.

**References:**

- Vicki L. Sauter, *Decision Support Systems for Business Intelligence*, Wiley Publishing.
- Efrain Turban, Jay E. Aronson, and Ting Peng Liang, *Decision Support Systems and Intelligent Systems*, Prentice Hall Inc.

<b>Course Objective/Course Learning Outcome:</b>	<b>Contribution to Program Student Outcomes:</b>
1. Understand the concepts of decision support systems structure and the principles of their solution.	(SO-1) Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Analyze typical decision situations to support them with computer technology	
3. Design and implement a decision support system.	(SO-2) Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
4. Understand emerging technologies and issues in the context of decision support systems as well as the management of information technology.	(SO-6) Support the delivery, use, and management of information systems within an information systems environment.
<p><b>Course Outline:</b></p> <p><b>Week 1.</b> Introduction to Decision Support Systems</p> <p><b>Week 2.</b> Introduction to Business Intelligence</p> <p><b>Week 3.</b> Decision-Making Process</p> <p><b>Week 4.</b> DSS Capabilities, Structure and Classifications.</p> <p><b>Week 5.</b> Modeling For Management Support System</p> <p><b>Week 6.</b> Modeling For Management Support System (Cont.)</p> <p><b>Week 7.</b> 7th Week Exam</p> <p><b>Week 8.</b> Data Mining for Business Intelligence.</p>	<p><b>Week 9.</b> Data Mining for Business Intelligence (cont.)</p> <p><b>Week 10.</b> Artificial Neural Networks for Data Mining</p> <p><b>Week 11.</b> Data Warehouses And Its Role In Decision Support</p> <p><b>Week 12.</b> 12th Week Exam</p> <p><b>Week 13.</b> Intelligent Support Systems(Cont.)</p> <p><b>Week 14.</b> Intelligent Support Systems(Cont.)</p> <p><b>Week 15.</b> Revision</p> <p><b>Week 16.</b> Final Exam</p>

**Grade Distribution:****7th Week Assessment (30%):**

Quiz (10%) + Exam (20%)

**12th Week Assessment (20%):**

Exam (10 %) + Project (10%)

**Year Work (10%):**

Homework Assignments (10%)

**Final Exam (40%)****Policies:****Attendance:**

AASTMT Education and Study Regulations (available at [aast.edu](http://aast.edu))

**Academic Honesty:**

AASTMT Education and Study Regulations (available at [aast.edu](http://aast.edu))

**Late Submission:**

*Late submissions are graded out of 75% (1 week late), 50% (2 weeks late), 25% (3 weeks late), 0% (more than 3 weeks late)*