



**University/Academy:** Arab Academy for Science and Technology & Maritime Transport

**Faculty/Institute:** College of Computing & Information Technology

**Program:** B. Sc. In Information Systems, Computer Science & Software Engineering

Course title	<b>Information Systems Theory &amp; Practice</b>
Course code	<b>IS372</b>

**Form no. (11A): Knowledge and skills matrix for a course**

Course content	Week	Knowledge	Intellectual skills	Professional skills	General skills
<b>Information Systems Management in the Global Economy</b>	1	<ul style="list-style-type: none"> <li>Identify External business environment</li> <li>Identify internal organizational environment</li> <li>Define the business strategies in the new work environment.</li> </ul>	<ul style="list-style-type: none"> <li>Compare different technology environment.</li> </ul>	<ul style="list-style-type: none"> <li>Build simple model on MeadWestvaco corporation.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Top IS job</b>	2	<ul style="list-style-type: none"> <li>Define the escalating benefits of IT.</li> <li>Identify traditional functions of IS.</li> <li>Identify CIO's responsibilities</li> <li>Define governing of IS.</li> <li>Identify investing of IS</li> <li>Define Managing of IS</li> </ul>	<ul style="list-style-type: none"> <li>Compare between traditional and new roles of CIO.</li> <li>Compare between three computing Eras</li> </ul>	<ul style="list-style-type: none"> <li>Experiment American Airlines and the SABRE system.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Strategic uses of information technology</b>	3	<ul style="list-style-type: none"> <li>Define working inward:Business to Employee</li> <li>Define working outward:Business to Customer.</li> <li>Define working Across:Business to</li> </ul>	<ul style="list-style-type: none"> <li>Compare between the cheap and disruptive revolution</li> </ul>	<ul style="list-style-type: none"> <li>Experiment the shippy industry case study.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

		Business.			
<b>Strategic information systems planning</b>	4	<ul style="list-style-type: none"> <li>• Explain why planning is so difficult?</li> <li>• Define business goals and system plans.</li> <li>• Explain why technologies are changing rapidly.</li> <li>• Identify what are the responsibilities that need to be joint.</li> <li>• Identify the critical success factors.</li> <li>• Identify the competitive forces model.</li> <li>• Identify the linkage analysis planning.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze the eight planning techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply today's sense and respond approach to IT planning.</li> <li>• Use Microsoft case study.</li> <li>• Use shell oil case study.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Designing corporate IT Architecture</b>	5	<ul style="list-style-type: none"> <li>• Define IT architecture</li> <li>• Define IT infrastructure</li> <li>• Explain the evolution of distributed systems</li> <li>• Define distributed processing</li> <li>• Identify corporate policy for distributed computing</li> </ul>	<ul style="list-style-type: none"> <li>• Compare and analyze the types of enterprise distributed systems</li> </ul>	<ul style="list-style-type: none"> <li>• Implement General Motors case example</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Managing Telecommunications</b>	6	<ul style="list-style-type: none"> <li>• Explain the evolving telecommunications scene</li> <li>• Identify role of the IS department.</li> </ul>		<ul style="list-style-type: none"> <li>• Implement Toronto Pearson International airport case study.</li> </ul>	
<b>7<sup>th</sup> week Exam</b>	7				
<b>Managing corporate Information Resources</b>	8	<ul style="list-style-type: none"> <li>• Define three level database model.</li> <li>• Define four data models in business.</li> <li>• Identify four types of information</li> </ul>		<ul style="list-style-type: none"> <li>• Implement Owens &amp; Minor case example</li> </ul>	
<b>Managing partnership based IT operations</b>	9	<ul style="list-style-type: none"> <li>• Define operation.</li> <li>• Define operational measures.</li> </ul>			

		<ul style="list-style-type: none"> <li>Identify the importance of good management.</li> <li>Define outsourcing</li> </ul>			
<b>Technologies for developing effective systems.</b>	10	<ul style="list-style-type: none"> <li>Define foundations of system development.</li> <li>Identify software prototyping.</li> <li>Define ERP systems.</li> <li>Identify Internet Based systems</li> </ul>		<ul style="list-style-type: none"> <li>Build a web service</li> </ul>	
<b>Management issues in system development</b>	11	<ul style="list-style-type: none"> <li>Define infrastructure management</li> <li>Explain what is project management?</li> <li>Identify risk management.</li> </ul>	<ul style="list-style-type: none"> <li>Distinguish between the different roles of systems.</li> </ul>	<ul style="list-style-type: none"> <li>Implement trucking company case study.</li> </ul>	
<b>12<sup>th</sup> week Exam</b>	12				
<b>Managing Information security</b>	13	<ul style="list-style-type: none"> <li>Define threats.</li> <li>Identify the scope of security management.</li> </ul>			
<b>Supporting Information-centric decision making</b>	14	<ul style="list-style-type: none"> <li>Define real time enterprise</li> </ul>		<ul style="list-style-type: none"> <li>Design a problem solving scenario</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate the ability to make use of a range of learning resources and to manage one's own learning.</li> </ul>
<b>Supporting IT-enabled collaboration</b>	15	<ul style="list-style-type: none"> <li>Define systems to support collaboration</li> <li>Identify managing IT – Enabled workflows</li> </ul>			

**Course Instructor**

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**Head of Department**

Name: **Dr. Essam Kosba**

Signature:

**Dean - College of Computing and Information  
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**Executive Manager of Quality Assurance  
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Name: **Prof. Dr. Aziz Ezzat**

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