

**NOVA Information Management School**

**NOVA IMS**

<b>Course</b>	Theory and Practice of Information Systems
<b>Coordinator</b>	Vitor Santos
<b>ECTS</b>	4
<b>Objectives:</b>	<p>The course mainly aims at analyzing the information systems in the context of organizations, separating the technological aspects of the organizational aspects and management. It will examine the following topics:</p> <ul style="list-style-type: none"> <li>-Characterization of systemic Organizations</li> <li>-Structured Analysis</li> <li>-Planning of information systems Architectures-information systems</li> </ul> <p>At the end of this unit the student should be able to:</p> <ol style="list-style-type: none"> <li>1 - Conceptualize organizations systems as information systems, ie, be able to apply the basic concepts of Systems Theory and Information Theory in information systems management from the real world</li> <li>2-Perform Entity Active Systemic analysis</li> <li>3-Mastering a method of Functional Analysis</li> <li>4-Know the Information Systems Planning main approaches</li> <li>5-Know and apply the different types and referential of Information Systems architectures</li> </ol>
<b>Curricular Unit Contents:</b>	<p>The curricular unit is organized in four Learning Units (LU):</p> <p>LU1 - Systemic characterization of Organizations under IT perspective</p> <ul style="list-style-type: none"> <li>-System concept Applications of the concept of system, types of systems, viable autonomous systems</li> <li>-Conceptual models for the systemic study of active entities.</li> <li>-Systemic characterization</li> <li>- Purpose (Mission and Business Sector, Legal status and ownership, size, performance)</li> <li>- Environment (Stakeholders and Customers)</li> <li>- Activities (value chain of the organization, organizational activities portfolio)</li> </ul>

	<p>(APQC), functional structure)</p> <ul style="list-style-type: none"> <li>- Business Model</li> <li>- Organs (Organizational, Job descriptions, Key skills / vocational skills, computer applications portfolio and computer architecture)</li> </ul> <p>LU2 - Structured Analysis</p> <ul style="list-style-type: none"> <li>-Overview (SSADM, Information Engineering, SSM, ...)</li> <li>-Functional analysis</li> </ul> <p>LU3- Information systems planning</p> <ul style="list-style-type: none"> <li>-Concepts</li> <li>-Building an Information Systems Plan</li> </ul> <p>LU4 - Information Systems Architectures</p> <ul style="list-style-type: none"> <li>- Architectures types</li> <li>- Referential</li> </ul>
<p><b>Teaching methods:</b></p>	<p>Teaching based on lectures and practical classes. The lectures are, in essence, for expository sessions, which serve to introduce the fundamental concepts associated with each of the topics. The practical classes are based on the analysis, modeling and planning organizations and implementation of theoretical concepts.</p> <p>Teaching Methods</p> <ul style="list-style-type: none"> <li>• Expository and interrogative teaching:lectures and discussions.</li> <li>• Declarative:tutorials tools</li> <li>• Active and participative:case studies, participation in project teams and practical use of theoretical concepts of Information Systems</li> </ul>
<p><b>Grading methods:</b></p>	<p>Evaluation:</p> <p>1st round:Theoretical test (50%) + 3 Practicals Works (50%)</p> <p>2nd round:final exam (100%).</p> <p>ACEF/1213/16232 - Guião para a auto-avaliação Page 100 of 163</p>
<p><b>Bibliography:</b></p>	<ul style="list-style-type: none"> <li>• Laudon, K., Laudon, J. (2005) - Management Information Systems:Managing the Digital Firm, Prentice-Hall</li> <li>• O'Brien, J., Marakas, G. (2005) - Management Information Systems, McGraw-Hill/Irwin</li> <li>• Stair, Ralph M., e Reynolds, George W. (2006) "Principles of Information Systems, 7th edition) Boston, Massachusetts:Course Technology</li> </ul>