

Course Title	Enterprise Architecture				
Course Code	CIS300				
Course Type	Compulsory				
Level	Bachelor (1 st cycle)				
Year / Semester	3 rd Year / 5 th Semester				
Teacher's Name	TBA				
ECTS	6	Lectures / week	3 hours / 14 weeks	Laboratories / week	None
Course Purpose and Objectives	<p>This course explores the design, selection, implementation and management of enterprise IT solutions. The focus is on applications and infrastructure and their fit with the business. Students learn frameworks and strategies for infrastructure management, system administration, data/information architecture, content management, distributed computing, middleware, legacy system integration, system consolidation, software selection, total cost of ownership calculation, IT investment analysis, and emerging technologies. These topics are addressed both within and beyond the organization, with attention paid to managing risk and security within audit and compliance standards. Students also hone their ability to communicate technology architecture strategies concisely to a general business audience.</p>				
Learning Outcomes	<p>Upon the completion of the course the students will:</p> <ul style="list-style-type: none"> • Describe a variety of frameworks for enterprise architecture analysis and decision making. • Discuss the core concepts of data/information architecture and evaluate existing data/information architecture designs. • Discuss the benefits and risks of service oriented architecture. • Analyze the role of audit and compliance in enterprise architecture. • Evaluate the total cost of ownership and return on investment for architecture alternatives. • Evaluate and plan for the integration of emerging technologies. 				
Prerequisites	CIS100, BUS100, MGT100, CIS210	Co-requisites	None		
Course Content	<p>Introduction: Introduction and evolution – from coding to design and architecture. Types of, and relation between architectures The Software architecture to technology architecture continuum. Systems thinking and business thinking</p> <p>Strategies: Solution and Enterprise Architecture - business and IT strategies, Capturing architectures – use of models, Architectural styles, Integration of different types of software in the business</p>				

	<p>Quality: Documenting architectures, Quality attributes – the key focus of architectures, Overview of EA frameworks and practices</p> <p>Application: Capturing enterprise application and data architectures, The human side of architecting – Skills to be an effective architect</p>						
Teaching Methodology	Face-to-face						
Bibliography	<p>Ahlemann, F., Stettiner, E., Messerschmidt, M., & Legner, C. (2012). Strategic enterprise architecture management: Challenges, best practices, and future developments. Heidelberg: Springer.</p> <p>Bente, S., Bombosch, U., & Lagade, S. (2012). Collaborative enterprise architecture: Enriching EA with lean, agile, and enterprise 2.0 practices. Waltham, MA:Morgan Kaufmann Publishers.</p> <p>Mahmood, Z. & Hill, R. (2011). Cloud computing for enterprise architectures. Heidelberg: Springer.</p> <p>Pham, T., Pham, D.K., & Pham, A.T. (2013). From business strategy to information technology roadmap: A practical guide for executives and board members. Boca Raton: Productivity Press.</p> <p>Schulz, G. (2017). Software-defined data infrastructure essentials: Cloud, converged and virtual fundamental server storage I/O tradecraft. Boca Raton: Auerbach Publications.</p>						
Assessment	<table border="1"> <tr> <td>Examinations</td> <td>50%</td> </tr> <tr> <td>Project</td> <td>40%</td> </tr> <tr> <td>Class Participation and attendance</td> <td>10%</td> </tr> </table>	Examinations	50%	Project	40%	Class Participation and attendance	10%
Examinations	50%						
Project	40%						
Class Participation and attendance	10%						
Language	English						