CPIS 352 : ENTERPRISE ARCHITECTURE

📂 **Faculty Information :**

Course Coordinator	Dr. Adnan Aalbar - FCIT
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Office Days and Hours	Sunday - Thursday (11:00 - 2:00)
Office Location	Room #. 107, Building 31
Laboratory Instructor	Mr. Zahid Mahmood

📂 **Course Information :**

Course Code	CPIS - 352
Course Title	Enterprise Architecture
Lecture Days	Monday, Wednesday
Lecture Timings	9:30 - 10:50 am
Class Location	Room 9, Building 31
Lab Location & Timings	Room 9A, Tuesday 4:00-5:20pm

📄 **Course Description :**

Enterprise Architecture (EA) is the analysis and design of an enterprise in its current and future states from a strategy, business and technology perspective. This course provides an exposure to the foundational concepts of enterprise architecture. The course will provide students with the foundational knowledge needed to understand how EA serves to integrate strategic, business, and technology planning methods, which support enterprise-wide information technology resource development and governance in the context of business requirements. This course is designed to cover the theory, frameworks, principles and best practices of enterprise architecture then move to a practical, comprehensive approach to delivering the subject matter involving real-world case studies and project discussions.

The course sets the "common language" for EA discussions for professionals new to the EA field as well as functional business people, customers, suppliers, and others that desire an overview of enterprise architecture and the benefits it can bring to an organization. The course is organized into following weeks each consisting of supporting topics.

📄 **Course Objectives :**

At the conclusion of this course, students should be able to:

- Understand the foundational elements of EA
- Describe the value EA brings to an organization
- Discuss and compare contemporary EA frameworks
- Understand EA concepts and practices
- Articulate how enterprise architecture supports the strategic objectives of the organization
- Understand the fundamentals of enterprise architecture development and maintenance
- Understand the importance of effective governance for successful enterprise architecture development and adoption

📑 **Detailed Course Schedule:**

Week	Topics	Readings	Assignments
Module - 01 : Enterprise Architectural Concepts			
1	Enterprise Architecture – The Architecture Process – Drivers for Enterprise Architecture – Internal Drivers – External Drivers	Chapter 1 Lecture 1 Slides	Case Assignment #. 1 Architectural Frameworks Source: Internet
2	EA and Other Governance Instruments – Strategic Management : BSC – Strategy Execution : EFQM – Quality Management : ISO-9001 – IT Governance: COBIT – IT Service Delivery and Support: ITIL – IT Implementation: CMM and CMMI	Chapter 2 Lecture 2 Slides	
3	Methods and Frameworks – The Zachman Framework – The Open Group Architectural Framework – OMG's Model Driven Architecture - MDA – Other Frameworks	Chapter 2 Lecture 2 Slides	Case Assignment #. 2 Business Process Map of Student Admissions at KAU Source: MS-Visio Enterprise Architect
4			**Mid Term - 01 Examination**
5	Description Languages – IDEF – BPMN – Testbed – UML – ARIS – Architecture Description Lang. – Service-Oriented Architecture SOA	Chapter 2 Lecture 2 Slides	
Module - 02 : Initiating Enterprise Architecture			
6	Dimensions of Architectural Modeling – Business Layer Concepts – Application Layer Concepts – Technology Layer Concepts – ArchiMate and TOGAF Modeling Example	Chapter 5 Lecture 3 Slides	

	Guidelines for Modelling - The Modelling Process - Guidelines for modeling - Readability & Usability of Models	Chapter 6 Lecture 4 slides	
7	<u>**Viewpoints and Visualization**</u> – Models, Views, and Visualizations – Example: Process Illustrations – Creating, Selecting, and Using Viewpoints – Basic Design Viewpoints – ArchiMate and TOGAF Views	Chapter 7 Lecture 4 Slides	<u>Case Assignment #. 3</u> Use Process Illustration example and create a Viewpoint of Moodle at KAU <u>Source:</u> Enterprise Architect
8			**Mid Term - 02 Examination**
	Module - 03 : Architecture Governance		
9	<u>**Architecture Alignment**</u> – System Aspects – The System Process – Refinement Levels – Comparison with Other Frameworks	Chapter 9 Lecture 5 Slides	
10	<u>Alignment Phenomena</u> – Service Provisioning Layers – Infrastructure Architecture – Business System Architecture – The FMO Alignment Pattern	Chapter 9 Lecture 6 Slides	
11	<u>The Architecture Process</u> – Methods – IT Governance	Chapter 9 Lecture 6 Slides	
12	<u>Case Studies</u> – KAU	Chapter 11 Lecture 7 Slides	
13	<u>Case Studies</u> – Saudi Airlines	Chapter 11 Lecture 7 Slides	
14	**Final Exam**	Text book Lecture Slides	**Final Submissions:**

		Assignments	Assignments Coursework Lab Activities

Grading & Evaluation :

1. Final Exam - 40%
2. Mid Exam 2 - 15%
3. Mid Exam 1 - 15%
4. Quizzes (#1, #2) - 10%
5. Assignments (#1, #2) - 10%
6. Project/Presentation - 10%

Text book:

Enterprise Architectures at Work - Modeling, Communication and Analysis (Second edition)

Reference book:

TOGAF 9 Foundation Study Guide - by Rachel Harrison (The Open Group)