

Business Analytics and Information Technology**COURSE NUMBER: 33:136:465****COURSE TITLE: Enterprise Architecture****COURSE DESCRIPTION**

Enterprise Architecture (EA) refers to a coherent whole of principles, methods, and models that are used in the design and realization of an enterprise's organizational structure, business processes, information systems, and infrastructure. EA is an instrument used by businesses to achieve alignment between business and IT within an organization. This alignment has been the major challenge as organizations go through transformation that keep them competitive and agile. Employing successful Enterprise Architecture ensures that changes to business process are correctly supported by information systems and their underlying IT infrastructure. Moreover, understanding this topic is critical when making additions or changes to an organization's computing resources. This course covers this topic introducing models, techniques, and tools for developing Enterprise Architecture. Specifically, it covers methods and frameworks from The Open Group Architecture Framework (TOGAF), but it also touches on other frameworks such as Zachman. The course starts with an overview and the history of EA, TOGAF core concepts, then it follows with a tour of the IT landscape in business organizations, then it presents EA through the TOGAF standard and its associated modeling language ArchiMate.

Prerequisites: None; however, it is recommended to take this course after the core course "Business Data Management: 33:136:470".

COURSE MATERIALS

- Required Materials
 - o **TOGAF 9.1 standard** by the open group. Available at <http://pubs.opengroup.org/architecture/togaf9-doc/arch/>.
- References
 - o **Enterprise Architecture at Work: Modelling, Communication and Analysis (The Enterprise Engineering Series)**. By Mark Lankhorst. ISBN: 978-3642296505, Edition: 3rd ed. 2013. Available as paperback and as a Kindle edition
 - o **Enterprise Architecture as Strategy: Creating a Foundation for Business Execution** by Jeanne W. Ross, Peter Weill, and David C. Robertson, Harvard Business Press 2006. ISBN: 978-1-59139-839-4. Available as Hardcover and as a Kindle edition.
 - o **An Introduction to Enterprise Architecture**. Third Edition. Bernard, Scott A. ISBN: 978-1477258002. Available as Paperback and as a Kindle edition.
- **Software:** we will use Abacus as a primary tool; however, other tools may be presented if they become available to RBS.

GRADE BREAKDOWN

10%	Presentations
30%	Homework Assignments
30%	Midterm
30%	Final Project

No letter grades are assigned to individual assignments or exams, only numeric scores from 0 to 100. Your course grade will be based on your aggregate score, calculated by combining your scores on all class work.

ASSIGNMENTS

There will be 4 to 6 assignments that focus on enforcing the learning in the classroom. These assignments may involve answering question on case studies, development of artifacts, completing a TOGAF template, modeling of business cases and solving them using tools, or answering questions about the theory.

COLLABORATION

All homework assignments are to be completed on your own. You are encouraged to discuss ideas broadly with other students and myself, but all submitted work is to be generated independently. You are not allowed to sit together and work out the details of the assignments with your peers. Nor should you compare your solutions or your final work product to other students' work.

LATE POLICY

To be considered on time, assignments must be turned in by the due date and time. Late assignments will incur a penalty of 20% of the assignment's available points up to a maximum of two days after the due date.

TEACHING METHODS

I will use several teaching methods to best achieve the course goals. These methods include lecturing, group activities on modeling and use of software, computer demonstrations, and others. I expect students to come to class prepared, and that means reading the materials assigned from TOGAF standard or other readings in advance. Please participate actively in class.

QUESTIONS

Questions are encouraged during class and office hours, and via e-mail.

ATTENDANCE

Regular attendance is required and will be recorded. In severe weather, please check the class website -- if at all possible, I will also email any class cancellation or schedule change information as soon as I can.

EXAMS

There will be one midterm exam in the 7th week.

COURSE PROJECT

This is a group project. The deliverables for that project include the documentation with all the models (artifacts), a PowerPoint presentation of the project, and the electronic copies of the models. The final project will be completed in phases as each group applies the architecture phases in their case study. The project description, requirements, and rubric will be detailed in a separate document.

BLACKBOARD

I will use Blackboard learning management system to manage most aspects of the course including:

- The course materials
- The assignments.
- The grades.

In addition, I'll utilize blackboard Discussion Board facility for discussions on homework assignments, the project, and the exams. Moreover, I'll use Blackboard announcements tool for sending announcements to your email. You must make sure that your email on blackboard is correct and that you are receiving all my emails. Please use your Rutgers' e-mail address in Blackboard.

ACCOMMODATIONS FOR STUDENTS WITH SPECIAL NEEDS

I will make special arrangements for students with special needs upon the advice of the Office of Disability Services (<http://ods.rutgers.edu>). Please submit your official request for special arrangements before the midterm exam.

HONOR CODE

By enrolling in this course, you accept the following Honor Pledge for all exams, assignments, and graded work: “I pledge, on my honor, that I have neither received nor given any unauthorized assistance on this examination.”

Code of Student Conduct: <http://judicialaffairs.rutgers.edu/university-code-of-student-conduct>

ACADEMIC INTEGRITY

All students are required to read and understand Rutgers academic integrity policies and procedures. I'll enforce these policies with their associated sanctions strictly in any violation to academic integrity. Academic integrity policies and procedures are available at <http://academicintegrity.rutgers.edu/>

TOPICS

- An overview of Enterprise Architecture
- Introduction to TOGAF: Structure of TOGAF document
- Core Concepts of TOGAF:
 - The Architecture Development Method (the ADM)
 - Deliverables, Artifacts, and Building Blocks
 - Architecture tools
 - Enterprise Continuum
 - Architecture Repository
 - Architecture Capability
 - Using TOGAF with other frameworks
 - Architecture Views and View Points
- The Architecture Development Method (ADM) of TOGAF
 - Preparation Phase
 - Architecture Vision Phase
 - Business Architecture Phase
 - Information Systems Architecture Phase
 - Technology Architecture Phase
 - Opportunities and Solutions
 - Migration Planning
 - Implementation Governance
 - Architecture Change Management
 - Architecture Requirements Management
- ADM guidelines and Techniques
- TOGAF Reference Models (TOGAF TRM and III-RM)

Good Luck
