MET CS 783 Section BHA (Mondays) – Spring 2018

Course Syllabus – Enterprise Architecture

Instructor: Marcia M. Yates (email: marcia.m.yates@gmail.com or nizzari@bu.edu)

Textbooks:

- **_Enterprise Architecture as Strategy_** by Jeanne W. Ross, Peter Weill, and David C. Robertson, Harvard Business Press 2006. ISBM: 978-1-59139-839-4. (This textbook can be purchased from Barnes and Noble at Boston University. Text is abbreviated as "EAAS" below.)
- **_Software Architecture Patterns_** by Mark Richards, O'Reilly Media Inc., 2015. (This book is a free PDF download from the O'Reilly website: http://www.oreilly.com/programming/free/files/software-architecture-patterns.pdf)

Note that this is a "flipped classroom" course. Significant class time will be devoted to in-class workshops conducted in small groups, some of which are noted on the schedule below. Lectures may be assigned as homework reading if there is not sufficient time to cover all lectures in class. Because workshop timing is unpredictable, some topics may need to shift slightly from the plan below.

Class Meetings	Topics	Reading Assignments	Assignments
Jan 22	Introduction to Enterprise Architecture, to CS783 course objectives Software Architecture Patterns **Ice-breaker Workshop**	EAAS: Preface, pp. vii – xi EAAS: Chapter 1 EAAS: Chapter 2 _Blackboard – read Module 1 content_	_Review Module 0 in Blackboard course; review syllabus; create your personal schedule for the course_ _Think about what you want to do for the Term Project_
Jan 29	Intro to EA, continued: The three themes of our course and textbook; the Core Diagram and business operating models Review of system architecture, time permitting	EAAS: Chapter 3	
Feb 5	Changes in the Business Climate Affecting EA EA Methodology: Methods and EA frameworks, enterprise agile	EAAS: Chapter 4 _Blackboard – read Module 2 content_	**_All due by 6am Tuesday morning:_** **Assignment 1 due** **Quiz #1**

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Class Meetings	Topics	Reading Assignments	Assignments
			Term Project Deliverable #1 due
Feb 12 *Prof. Schudy will lecture*	<u>Migrating Legacy Systems:</u> A Key EA Challenge <u>IT Engagement Model, Security & Compliance</u>	EAAS: Chapter 5	
Feb 20 **TUESDAY** **Class is on <u>Tuesday</u> due to Monday holiday**	<u>Communicating Technical Information to the Non-technical</u> **On-campus workshop (most of class period)**	EAAS: Chapter 6 Read introduction and chapters 1&2 in Richards textbook *Blackboard: read Module 3 content*	***All due by 6am Tuesday morning:*** **Assignment #2** **Quiz #2** **Term Project Deliverable #2**
Feb 26	<u>EA Implementation Technologies:</u> SOA and RESTful in the enterprise <u>Architecture Maturity Models Virtualization and Cloud Basics</u>	EAAS: Chapter 7	
Mar 5	**<u>NO CLASS – BU Spring Recess (March 3 through 11)</u>**		*(Work on Term Project and Assignment 3)*
Mar 12	<u>System Integration & Linking Technologies</u> <u>ERP Systems</u> **On-campus workshop**	*Blackboard: read Module 4 content* Read Richards chapters 3 & 4	***All due by 6am Tuesday morning:*** **Assignment #3 due** **Quiz #3** **Term Project Deliverable #3 due**
Mar 19	<u>Big Data Analytics</u> <u>Server Room Buildout versus Hosted versus Cloud Services</u>	EAAS: Chapter 8	
Mar 26	<u>New topics in EA:</u> Blockchain, Microservices, IoT, Containers and Docker	EAAS: Chapter 9	***All due by 6am Tuesday morning:***

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Class Meetings	Topics	Reading Assignments	Assignments
	On-campus workshop		**Assignment #4** **Quiz #4** **Term Project Deliverable #4 due**
Apr 2	IT Governance, Part 2: Vendor Management, Outsourcing, and SLAs Strategic deployment choices – cloud, hybrid cloud, hosted, or on prem?	*Blackboard: read Module 5 content* EAAS: Review Chapter 7	
Apr 9	Deploying Your EA: Scaling, Monitoring, and Fault Tolerance Software Architecture Patterns Redux	*Blackboard: read Module 6 content*	*Due by 6am Tuesday morning:* **Quiz #5**
Apr 16	**Term Project Presentations – entire class**		**Term Project Report and Presentation due**
Apr 23	**Term Project Presentations In-class questions for Final Exam review** The Final Lecture: Disaster Recovery and *"So You Want to Be a CIO?"*		*Due by 6am Tuesday morning:* **Quiz #6** *Term Project late acceptance – automatic 15 point reduction*
Apr 30	**FINAL EXAM – taken in-class, online through Blackboard. Students must bring their own laptops for the exam.**		Good luck!

Office hours: Before class on class night, or email instructor with questions. Instructor is happy to stay after class or use break times to answer questions or consult on Term Project. Scheduled phone calls also ok.

Spring Term Schedule: It is imperative that students stay current with work that is due. The Term Project can take significant effort, depending on the student and the choice of project. The term goes by VERY FAST. Students who succeed in this course plan out their work from the beginning; one of your Term Project deliverables will be a schedule that you create to identify what parts of your project will be delivered when.

Term Project length: Even with a relatively small class, reviewing and grading final term projects takes significant time – at least 3 hours per project. **Therefore, there is a page limit of 25 pages, with font size 10 the smallest font**

accepted. Instructor will stop grading after 25 pages. The page limit does not include the slides for your in-class presentation.

In-class Term Project presentation: It is fun and interesting to see what other students have done for their projects; the workshops and in-class presentations are often the highlights of the course. You will have up to 45 minutes to present your project and answer questions from the class. *PLEASE PLEASE PLEASE time your presentation and rehearse it!* It is very painful when we have to cut someone off because they are running over – a few minutes is ok, more than that is not.

Plagiarism policy: University plagiarism rules are strictly enforced. With the exception of collaborative workshop sessions, all assignments, quizzes, and exams are assumed to be the original work of the student whose name is on the assignment. The instructor uses *TurnItIn* to assess whether information has been copied directly from sources without proper citation. **Discovery of plagiarism will result in a zero for the assignment.**

Citations: In accord with the above rule on plagiarism, any directly quoted or paraphrased material must have proper citation. Any assignment must have a standard bibliography. MET College requires APA citation style (please see http://www.apastyle.org/ if you are unfamiliar with it). **Failure to include a bibliography will result in a 25% point loss on the assignment.**

Quizzes: There are six quizzes that are online in Blackboard. Quizzes are due by 6am on Tuesdays, as indicated in the syllabus above. Quiz results cannot be released until all students have taken the quiz.

Exams: The final exam will be held in class on April 30th; the test format is similar to the online quizzes. Students must bring a laptop to class that has successfully accessed Blackboard to take the exam.

Assignments: Assignments will be submitted in Blackboard. I will do my best to ensure timely feedback. All quizzes and assignments are due by 6am on Tuesday mornings – if you require an extension in hardship cases, please get in touch with the instructor BEFORE the due date for the assignment.

Grading: Your grade is determined as follows:

- Assignments and Term Project Deliverables – 15%
- Workshops, discussions in class – 10%
- Online quizzes – 15%
- EA Term Project Report – 20%
- EA Term Project Presentation – 10%
- Final Exam – 30%