Syllabus for
Enterprise Architecture Course
Thursday 7:20 pm - 10:00 pm

Course Number:	Enterprise Architectures - INFS 774 - 001
Title:	Enterprise Architecture
Instructor:	Barry Barlow Bbarlow4@gmu.edu
Textbook(s):	**Required** Enterprise Architecture Planning: Developing a Blueprint for Data, Applications, and Technology Steven H. Spewak, Wiley 1993 ISBN: 0471599859 **Optional** Enterprise Architecture As Strategy: Creating a Foundation for Business Execution by Jeanne W. Ross, Peter Weill, David C. Robertson, Harvard Business Press (2006), ISBN: 1591398398 An Introduction To Enterprise Architecture (Paperback) by Scott A. Bernard, Authorhouse (September 30, 2004), ISBN: 1418498084

Course Description:	This Course presents the basic concepts and methodologies for the discipline known as Enterprise Architecture within a framework, structure, and methodology. Per Gartner, "Enterprise architecture is the process of translating business vision and strategy into effective enterprise change by creating, communicating and improving the key requirements, principles and models that describe the enterprise's future state and enable its evolution. The scope of the enterprise architecture includes the people, processes, information and technology of the enterprise, and their relationships to one another and to the external environment. Enterprise architects compose holistic solutions that address the business challenges of the enterprise and support the governance needed to implement them".
	
	The objectives of this course are:
	    Explain what Enterprise Architecture is and why it is important;
	    Discuss the relationship between vision, strategy and architecture
	    Describe enterprise architectural IT frameworks
	    Describe the elements of an enterprise IT architecture
	    Describe a methodology for developing an enterprise architecture
	    Address the challenges facing enterprise architects
	
	The student will learn how to design enterprise architectures at scale, and develop considerations

	about architecture in relationship to an organization's vision and strategy, and create a process for establishing an ongoing enterprise architecture
Course Objectives:	To provide the students with a critical understanding of key enterprise architecture concepts, issues and constraints
Grading Criteria/Course Requirements:	**GRADES:** • **Exams (2) – 50% of Grade** • **Group Projects (1) – 30% of Grade** • **Presentations on selected research articles – 20% of Grade**
Supplemental References:	Guest Class Speakers, Case Studies (included in the text book and in practical journals and publications); Other articles as recommended by Instructor or discovered by students.

Groups: There will be groups with from 2 to 4 people in each, depending on class size. Students will self-select which group they chose to participate in. Each group will be responsible for defining and developing an Enterprise Architecture for a simulated organization, as defined by the Instructor. Time will be made available for groups to meet and discuss your group project.

Exams: Two in-class exams will be held (a mid-term and final) over the content from the lectures and the independent readings. Each exam will be for a full period. Any student who is unable to attend the exam will be treated in accordance with GMU policy and procedures.

Research Article presentations

The instructor will provide a reading list with a variety of articles. Students will select an article from the list, or from other articles approved by the instructor, and write a 2-3 page (double-spaced) critique. Critiques will contain between 600-800 words, not counting any material quoted or referenced from the selected article. Where external references are used in the critique, proper citation using APA or MLA format is required. The GMU policy on plagiarism will apply.

For one of the critiques (student choice), each student will also prepare a 5-10 minute presentation. The student will submit a copy of their presentation to the instructor one week before their presentation to distribute to each student. Everyone is expected to read the presentation and be prepared to discuss it in class.

The first research paper will be on selected topics in enterprise frameworks and business processes. As such, the students report should focus on the selected topic research findings, which could include the history, principles, current trends and/or frameworks of enterprise architectures.

The second research paper will be on the application of enterprise architectures in a specific company, agency or other corporate entity. As such, the students report should focus on outcomes, success or failure, lessons learned or summary results. If you are professionally employed as an Enterprise Architect, you may elect instead for this article to provide a presentation on a case study from your work, subject to appropriate approvals by your employer.

RESEARCH PAPER RUBRIC
(Each paper is worth 5%, presentation in class is worth 10%)

Formatting / Grammar	MS Word or Adobe PDF 600-800 words, 1" margins, single spaced 12 pt Times New Roman Footnotes used for references – hyperlink only is acceptable, at least two references must be used. No Grammar and Spelling errors.	2% of 5%
Topic Selection /Presentation	Within the scope of Architecture Frameworks or Business Process Management. Emerging and innovative ideas which add knowledge to class lectures Differentiated findings based on content.	2% of 5%
Thesis / Summary	Well-defined thesis statement, with conclusion statement supported by findings based on research	1% of 5%

Course Content and Activities

Week	Material
Week 1: **January 25**	**Enterprise Architecture Introduction** **Terminology/Definitions**
Week 2: **Feb 1**	**Architectural Framework Components such as architectural views, architectural principles, technical reference model, set of standards etc**
Week 3: **February 8**	**Architecture Development Process Overview - plan the EA process, characterize the baseline architecture, Develop the target architecture vision**
Week 4: **February 15**	**Architecture Development Process: Develop the transition and implementation plans, Touch points with the system development lifecycle. <u>First research paper write-up is due</u>.**
Week 5: **February 22**	**Baseline (As-Is) Architecture Development - Gathering Current Inventory, Analyzing current architecture, documenting Strengths and Weaknesses of the architecture. <u>(Article presentations as scheduled)</u>**
Week 6: **March 1**	**Target (To-Be) Architecture Development - Vision for Business architectures. Techniques to document Business architectures; Portfolio Management. <u>(Article presentations)</u>**
Week 7: **March 8**	**<u>Mid-Term Test</u>**
Week 8: March 15	**No Class, Spring Break Holiday**
Week 9: March 22	**Target Architecture Development - Data architectures; Process models.** **Techniques to document both. <u>Second research paper write-up is due</u>. <u>(Article presentations)</u>**
Week 10: **March 29**	**Target Architecture Development Vision for the Service, Application and Technical Infrastructure architectures. Techniques to document Service, Application and Technical Infrastructure architectures. <u>(Article presentations)</u>**
Week 11: **April 5**	**Target Architecture Development Integrating the Business, Data, Application and Technical architectural perspectives. <u>(Article presentations)</u>**
Week 12: **April 12**	**Architecture Transition and Implementation Planning. Laying out an initiative roadmap, dependencies, architectural risk definition, and resource and cost estimation. <u>(Article presentations)</u>**
Week 13: **April 19**	**Advanced Topics (e.g., SOA, Cloud computing, Architectural Governance etc) <u>(Article presentations)</u>**
Week 14: April 26	**No Formal Class - Work on Group Projects**
Week 15: May 3	**Project Presentations**
Week 16: May 10	**<u>Final Exam</u>**