SYLLABUS
SYST619 – Spring 2014

Professor:	Dr. Philip Barry
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Office:	GMU: SEOR Adjunct Office
Office Hours:	By Appointment
Course Description:	Lifecycles in systems engineering and the role of systems integration and architecting in these. Conceptual frameworks for systems architecting. Structure, function, and purpose of systems architecting and integration. Risk management and systems architecting and integration. User requirements and functional specifications in systems architecting.
Course Hours:	Thursday 4:30pm to 7:10pm
Grades:	20% - Exam 1, 20% Exam 2
	55% - Group Project
	5% - Class Participation

Group Project

Each student will be a part of a small group that will be required to work a project over the term of the course. Periodic formal status updates will be required to be given in class. The final product will be a notebook that is turned at the end of the semester. A preliminary schedule of events is attached and will likely be modified as the semester develops. Students will evaluate the members of their group at the end of the semester.

Software

Students will be encouraged to acquire a software package to facilitate architecture design and analysis. GMU has licenses for CORE, Magic Draw and Enterprise Architect. Tool usage will **not** be part of the course so students should choose the tool that they are most comfortable with.

Exams

Two takehome exams will be given. The takehome exams will have no time limit. The exams will be open book.

Notes

- Deadlines *may* be negotiated several days before the due date. There will be no negotiation after the due date.
- Late tests **WILL NOT** be accepted.
- Late Project Notebooks **WILL NOT** be accepted.
- Reasonable accommodations will be made for job-related travel, etc. *but requirements will not be waived.*

Schedule of Events

Week 1>	23 Jan	♦ Introductions ♦ Course Overview ♦ Form Groups ♦ In-class exercise
Week 2>	30 Jan	♦ Lecture: Introduction to Architecturing ♦ Group Case Study Introduction ♦ Group Assignment 1
Week 3>	6 Feb	♦ Lecture: Popular Frameworks ♦ Group Assignment 2
Week 4>	13 Feb	♦ Lecture: Case Studies in Enterprise Architecture ♦ Group Assignment 3
Week 5>	20 Feb	♦ Group Status Brief ♦ Lecture: Documenting the As-Is Architecture ♦ Group Assignment 4
Week 6>	27 Feb	♦ Lecture: Agile Approaches to Developing the To-Be Architecture Part 1 ♦ Group Assignment 5
Week 7>	6 Mar	♦ No Class ♦ Exam 1 Posted ♦ Spring Break Taken
Week 8>	13 Mar	♦ Lecture: Agile Approaches to Developing the To-Be Architecture Part 2 ♦ Group Assignment 6 ♦ Exam 1 Due ♦ Class Will Be Held
Week 9>	20 Mar	♦ Exam 1 Review ♦ In Progress Review – Peer Review
Week 10>	27 Mar	♦ Lecture: Architecture Risk Assessment ♦ Group Assignment 7
Week 10>	3 Apr	♦ Lecture: Enterprise Modernization ♦ Group Assignment 8
Week 11>	10 Apr	♦ Lecture: Service Oriented Architectures Part 1 ♦ Group Assignment 9
Week 12>	17 Apr	♦ Group Status Brief ♦ Lecture: Service Oriented Architectures Part 2 ♦ Group Assignment 10 ♦ Exam 2 Posted
Week 13	24 Apr	♦ Lecture: Architectural Tradespaces ♦ Group Assignment 11 ♦ Exam 2 Due
Week 14	1 May	♦ Exam 2 Review ♦ Lecture: Architecturing Complex and Emergent Systems ♦ Group Assignment 12
Week 15>	8 May	♦ **Final Group Presentations – All Groups** ♦ **Project Notebooks Due**