

INFS 774: Enterprise Architecture [3 credits] Spring 2020

GMU Catalog Description

This course presents the basic concepts and methodologies for the discipline known as Enterprise IT Architecting within a framework, structure, and methodology. Enterprise IT Architecting is a necessary step for designing and developing a system of information systems. It includes the definition of the business, work, functional, information and technical perspectives. As such, it is the enabling approach for the system development process that builds complex information systems. Offered by Computer Science. May not be repeated for credit.

Prerequisites

INFS622 or permission of instructor

Topics Covered

The course will cover all facets of enterprise architecture including:

- The development of enterprise architecture as a discipline
- Architecture frameworks such as Zachman, TOGAF, DoDAF, and others
- System and enterprise modeling concepts and notations
- Contemporary issues in the practice of enterprise architecture
- Emerging techniques and methodologies in enterprise architecture

The class format will be primarily lecture, including guest lectures by practitioners in the field. Assignments will include research papers as well as architecture model development using a tool such as MagicDraw.

Textbook

The first half of the course will be based on readings assigned in class; the second half will be based on *Complex Enterprise Architecture: A New Adaptive Systems Approach*, John D. McDowall, February 8, 2019.

Course Dates: Monday, January 27 through Monday, May 4 (no class 9 March)

Location: Art & Design Building, room L008

Meeting Day and Time: Mondays, 7:20pm to 10:00pm. Please arrive at class on time. We will start on time and will finish not later than 10:00pm.

Blackboard: mymason.gmu.edu All assignments, class announcements, schedules, files and presentations will use Blackboard.

Instructor Information: John D. McDowall, Ph.D. (GMU 2015)

Professor's email: jmcdowal@gmu.edu. In the Subject line of your e-mail, use the prefix INFS640; for example: Subject: INFS774: Question about assignment #1

CS Office location: Nguyen Engineering Building, Room 4300 (see administrator)

Office hours: Call or email for appointments. Phone: 703-346-5181 (Okay to call at any time and leave message on voice mail)

Teaching Assistant (TA): None

Grading Policy

Student grades will be determined based on class participation, assignments, research paper review, research paper, and final exam.

Any requests for regrading or reconsideration of a grade must be submitted in writing and include a detailed justification, including an explanation of what you believe the instructor overlooked. Verbal requests will not be considered, and "I think I deserve a better grade" is not adequate justification. Keep in mind that if you request an assignment be regraded, the grade may go up or it may go down. Choose wisely.

Grade Component	Weight
Class participation (in class and online discussions)	10%
Assignments	30%
Midterm Project	30%
Final Project	30%

Grading guidelines: Note that some assignments are evaluated subjectively:

- A: means consistently above and beyond the course/assignment requirements
- B: means meets and occasionally exceeds the course/assignment requirements
- C: means minimally meets the course/assignment requirements
- F: means fails to meet the course/assignment requirements

Some assignment components are evaluated objectively:

- A : 95-100%
- A- : 90-95%
- B+ : 85-90%
- B : 80-85%
- C : 70-80%

Honor Code: All work performed in this course will be subject to GMU's Honor Code. Students are expected to do their own work in the course unless a group project is approved by the instructor. In papers and project reports, students are expected to write in their own words, rather than cutting-and-pasting from sources found on the Internet. When you do cite material from books, articles, and the Web, enclose the material in quotes and provide a reference. If a paragraph is used then it should be indented in the text (both left and right margins).

Format: For papers, PDF is preferred, but I will accept: OpenOffice/LibreOffice, Open Document Format, MS Office. Upload all assignments to Blackboard. For project assignments, the tool-specific format or a standardized interchange format such as XML.

Style: Research papers should follow either the IEEE or ACM format and use the Chicago Manual of Style for guidance on citation style, usage, etc. (If you prefer a hard-copy reference,

don't buy the big CMS. See the smaller A Manual for Writers by Kate Turabian). The easiest way to manage references and source citations is to use a citation manager such as Zotero.

Student projects must adhere to the CS Honor Code.

There are several Computer Labs available for general use by VSE students, which are located on the Fairfax campus. For more information go to the web site at <https://labs.vse.gmu.edu>.

Class Participation: Contribute to the in-class discussions, participate in online discussion topics posted on Blackboard. Some online discussion topics might be selected for grading.

Other Notes

- There will be reading assignments; I expect that you have actually read them!
- Lectures will augment reading material; lecture material will be asked about on assignments, project, and on final exam. Unless I explicitly state otherwise, assume all material will be on the exam.
- Lecture slides (from textbook authors and from instructor's additional material) will be posted on Blackboard.
- Course content:
 - Some material you may already know (good! that's review!)
 - Some material you may have learned earlier and have forgotten (good! you'll be reminded)
 - Some material you may know more than the instructor (good! share it!).
- Turn cell phones to silent mode; if you need to make an urgent call, leave the classroom. If you need to text, check emails, or other activity, do not disturb other students.
- Call or email the instructor if you anticipate being late or absent.
- Personal Safety and Security: The Mason Alert system provides emergency information of various sorts. Students can sign up for it by visiting the web site <https://ready.gmu.edu/masonalert/>. Students are also reminded that an emergency poster exists in each classroom explaining what to do in the event of crises and that further information about emergency procedures exists on <https://ready.gmu.edu/>.
- Computer and IT Security: Visit GMU's IT <https://its.gmu.edu> computer security web site regularly.