

Application and Technology Architecture

65010 – Spring 2015

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Delivery: 100% Online

Term: Semester, 15 Weeks

Course Overview

Course Description

Introduction to the concept of applications and technology architectures in the context of enterprise architecture. Students learn how to define applications and technology architecture principles and standards to support business performance, and to evaluate existing systems and technology in relation to performance goals. Students learn to work with applications and technology artifacts and matrices, prepare a technology catalog, and develop an applications and technology architecture blueprint.

In addition to learning the concepts and components of applications and technology architectures, students will do actual architecture work. Students will select and use a case study organization to put learning into practice on a current systems and technology inventory, an applications architecture, and a technology architecture. As a result, at the end of the term, students will have developed real enterprise architecture documents to add to their portfolio.

This course begins by setting the stage with the components that are essential for quality applications and technology architectures: operating model, stage of enterprise maturity, and the business model. The course then progresses through the purpose and concepts of a current systems and technology inventory, applications architecture, technology architecture, and finally the implementation plan. The case study assignments accompany the academic learning and are designed to help the student practice sound Applications and Technology Architecture development skills. The assignments reflect the progressive steps to developing final Applications and Technology Architecture documents, and require knowledge of the material presented in the textbook for their completion.

Course Goals

This course is designed to provide a thorough academic understanding of and relevant practical development experience in applications and technology architectures.

By the end of this course, students will:

- Understand the contribution of applications and technology architecture to enterprise architecture.
- Understand and create a current systems and technology inventory.
- Understand and create an applications architecture.
- Understand and create a technology architecture.
- Understand and create an implementation plan for applications and technology architectures.

Learning Objectives

By the end of this course, students will be able to

- Describe the overall value and purpose of applications and technology architectures, and how they contribute to enterprise architecture.
- Develop a current systems and technology inventory.
- Develop an applications architecture.
- Develop a technology architecture.
- Develop an implementation plan for applications and technology architectures.

Course Requirements

Prerequisites

Prerequisites include graduate standing and DSCI 61010 Enterprise Architecture.

Technology Skills

Online students are expected to possess a basic understanding of how to use and navigate a computer. For particular tasks that require setting up, configuring, or troubleshooting technology, support resources are available in the 'START HERE' folder in your online course.

To be a successful online student, you should be able to:

- Download, install, launch, and quit applications such as Microsoft Word or a web browser.
- Create, edit, and save files using word processing, spreadsheet, or presentation software applications.
- Configure and use an email client to retrieve, view, create, and send email messages including messages with attachments.
- Operate a web browser, including navigating web pages, clearing a browser's cache and installing or disabling plugins.
- Update your computer operating system and computer software applications.
- Access and change computer operating system settings and computer software application preferences, options, settings.
- Understand basic computer terminology in order to describe technical issues you may experience with technology.

Learning Materials

The required textbook for this course is:

- Spewak, Steven H. Enterprise Architecture Planning: Developing a Blueprint for Data, Applications and Technology. John Wiley & Sons, New York, 1992.

This text will be supplemented throughout the course with readings from the following text, with articles from professional journals and case studies.

- Jeanne W. Ross, Peter Weill, and David C. Robertson, Enterprise Architecture as Strategy. Harvard Business School Publishing, Cambridge MA, 2006.

- R.F. Hilliard et al. MITRE's Architecture Quality Assessment, *Software Engineering and Economics Conference*, 1997.
- Muscatello, J. R., & Chen, I. J. (2008). Enterprise Resource Planning (ERP) Implementations: Theory and Practice. *International Journal of Enterprise Information Systems*, 4(1), 63-77.

Computer Hardware and Software

A DSL, cable connection, or greater is recommended; dial-up is not sufficient. A laptop or desktop with the following minimum specifications is required:

- Laptop computer with a minimum of a 2 GHz processor and 2 GB of RAM
- Desktop computer with a minimum of a 2 GHz processor and 4 GB of RAM.

Kent State University provides technical support for a limited number of operating systems and software applications. The following required computer operating systems and software applications are supported by the KSU Helpdesk:

- Windows 7 system operating software for PC computers
- Mac OS X 10.6 Snow Leopard or 10.7 Lion system operating software for Apple Mac computers
- Microsoft Office Suite (Word, Excel, PowerPoint)
- Antivirus for Windows OS, [Microsoft Security Essentials](#)
- Antivirus for Mac OS, [Sophos](#)
- Blackboard IM (Instant Messenger)
- Adobe Acrobat Reader

A list of available FREE software downloads is available at support.kent.edu. Student discount on Microsoft Office Suite is available at www.theultimatesteal.com. [Kent State University Bookstore](#) often has student discounts available on purchases of new computer hardware and software applications.

Students new to Kent State University should review Information Service's [Technology Checklist](#).

Student Participation

- Students are expected to view online lectures. Online asynchronous course delivery will be through the Blackboard course management system.
- All course materials will be available to students through the Blackboard Learn course.
- Participation in graded online discussions is required according to the class schedule. The content quality of the discussion post will be graded; a missing post will receive 0 points.
- Students are expected to submit assignments by the due date for full credit.

Online Attendance Policy

Online courses are conducted on the premise that regular attendance (students logging into the Blackboard Learn learning management system) is expected. The number of logins or length of time students spend in the online course may vary on a daily, weekly, or monthly basis depending on participation requirements listed in the course syllabus. Attendance is therefore measured both by virtual presence in the online course and satisfying the specific criteria for course participation.

If students anticipate an absence from the online course due to technical or medical reasons, they should consult with the instructor individually. In the event the absence was due to illness or injury, verification from the medical professional treating the illness or injury should be presented to the instructor.

Communication Policy

Instructor Policy

The preferred communication tools for the course are Blackboard Discussion Board, Blackboard IM, and Blackboard Email. All are available in the left hand navigation area of the Blackboard Learn course.

Course communication policies are as follows:

- Live weekly office hours in Blackboard IM (see Virtual Office Hours).
- Students may communicate with the class and the instructor in weekly online discussions for questions and feedback. The instructor will monitor discussion posts daily, Monday through Friday. The instructor will monitor all discussion posts and will respond as needed.
- A response to Discussion Board and Email communications will be made within 24 hours during the week, Monday through Friday.
- Periods of unavailability will be announced to students at least a week in advance.
- If you are unable to access Blackboard Learn, submit communications to me through email (csantee3@kent.edu). Email subject must include "DSCI 65010" and the topic of the communication. For example, "DSCI 65010: Assignment Question".

Virtual Office Hours

KSU Policy on Office Hours <http://www.kent.edu/about/administration/provost/fpdc2/learning-and-teaching/faqs/answers/index.cfm#officehours>

Office Hours:

- Time: Wednesdays, 7:00pm – 8:00pm (EST)
- Location: Blackboard IM
- Blackboard IM is accessed through the left hand navigation in the Blackboard Learn course. The system will prompt to download and install Blackboard IM during the initial launch.

Online Student Conduct and (N)etiquette

Taking an online course and corresponding via the Internet presents communicators with a challenging task. It is important to remember several points of etiquette that will smooth communication between students and instructors.

- **Read first, Write later.** It is important to read all posts or comments of students and instructors within the course discussion before personally commenting to prevent repeating commentary or asking questions that have already been answered.
- **Avoid language that may come across as strong or offensive.** Language can be easily misinterpreted in written communication. Review your written communication to make sure that outsiders reading it would not be offended then post the statement. Humor and sarcasm may easily be misinterpreted as well, so try to be as matter-of-fact and professional as possible.

- **Follow the language rules of the Internet.** Do not write using all capital letters, because it will appear as shouting. Also, the use of emoticons can be helpful when used to convey nonverbal feelings ;).
- **Consider the privacy of others'.** Ask permission prior to giving out a classmate's email address or other information.
- **If possible, keep attachments small.** If it is necessary to send pictures, change the size to an acceptable 250kb or less.
- **No inappropriate material.** Do not forward virus warnings, chain letters, jokes, etc. to classmates or instructors. The sharing of pornographic material is forbidden.

NOTE: The instructor reserves the right to remove posts that are not collegial in nature and/or do not meet the Online Student Conduct and Etiquette guidelines listed above.

Course Assessments

Course Schedule

The course schedule and assignment details document has been posted in the Blackboard Learn course, and can be accessed by clicking on the **Course Schedule** link in the main navigation.

Grading Policies

Writing Assignments

- All assignments must be submitted through Blackboard Learn by 11:59pm (EST) on the assigned due date.
- If you are unable to access Blackboard, submit the assignment through email to me (csantee3@kent.edu) by 11:59pm (EST) on the assigned due date. Email subject must include "DSCI 65010".
- All written assignments should include your name and the assignment title in the heading (on all pages) of the submission.
- All written assignments must be submitted using doc, docx, or pdf format.
- The filename of all written assignments should follow the following format: lastname.assignmentNumber.doc (i.e. Santee.CaseStudyAssignment1.doc)
- All assignments submitted should include the required components.

Discussion Boards

Enterprise architecture learning is enhanced through dialog and shared experiences. Student participation in online discussions contributes to the understanding of the entire class.

- Participation in graded online discussions is required according to the class schedule. The content quality of the discussion post will be graded; a missing post will receive 0 points.

Deadlines, Late and Make-up Work Policy

Students are expected to submit written assignments by the due date for full credit. Written assignments that are late, up to one week, will receive one letter grade lower. Written assignments that are more than one week late will receive 0 points.

Online assignments, such as discussion posts and quizzes, must be submitted by the due date for full credit. Missing or late online assignments will receive 0 points.

Assessment Feedback

- Grades for quizzes and discussion posts will be posted in the Blackboard Learn Grade Center within one week after the due date.
- Grades for written assignments will be posted in the Blackboard Learn Grade Center within two weeks after the due date.
- Written assignments will be returned with comments.

Rubrics

Discussions and writing assignments will be scored according to grading rubrics. A grading rubric is a list of specific and measurable criteria for evaluating course work. Grading rubrics should be viewed prior to beginning work on a graded discussion or assignment, to help guide the successful completion of the task, and again once a grade has been posted to view instructor feedback.

To view grading rubric for instructor feedback on scored discussions or assignments, click on the link to **My Grades** located in the main navigation sidebar in your Bb Learn course. On the My Grades page, a link to "View Rubric" appears below the score in the **Grade** column.

Grading

Student grades will be assessed using the following methods. For a detailed breakdown of individual assignments, please consult the course schedule.

| Method of Assessment | Number of Assessments | Total Points |
|--------------------------|-----------------------|--------------|
| Case Study | 5 | 500 |
| Final Exam | 1 | 200 |
| Quizzes | 6 | 150 |
| Discussion Posts | 30 | 150 |
| Assessment Totals | | 1000 |

Student proficiency in coursework is recorded by the following letter grades:

| Course Average and Corresponding Letter Grade | | | | | | | |
|---|----|----|----|----|----|------|---|
| 92 | A | 82 | B | 72 | C | 60 | D |
| 90 | A- | 80 | B- | 70 | C- | < 60 | F |
| 88 | B+ | 78 | C+ | 68 | D+ | | |

University Policies

Students are required to be aware of and follow all general and academic policies established by Kent State University. A list of the general academic policies is listed on the online version of the [Kent State University Catalog](#). Specific policies related to the successful completion of this online course can be located and reviewed in your Blackboard Learn course. University policies are located in the **Syllabus**,

Course Schedule and University Policies folder contained within the START HERE folder in your Blackboard Learn course.

Regarding Students with Disabilities

(Revised 6/01/07) University policy 3342-3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Student Accessibility Services (contact 330-672-3391 or visit www.kent.edu/sas for more information on registration procedures).

Subject to Change Statement

The syllabus and course schedule may be subject to change. Changes will be communicated via email or the Blackboard Learn announcement tool. It is the responsibility of students to check email messages and course announcements to stay current with their online course.