Title: Enterprise Architecture

Catalog Description

This course explores the design, selection, implementation and management of enterprise IT solutions. The focus is on applications and infrastructure and their fit with the business. Students learn frameworks and strategies for infrastructure management, system administration, content management, distributed computing, middleware, legacy system integration, system consolidation, software selection, total cost of ownership calculation, IT investment analysis, and emerging technologies. These topics are addressed both within and beyond the organization, with attention paid to managing risk and security within audit and compliance standards. Students also hone their ability to communicate technology architecture strategies concisely to a general business audience.

Learning Objectives

Students will be able to:

1. Understand a variety of frameworks for enterprise architecture analysis and decision making.
2. Evaluate the total cost of ownership and return on investment for architecture alternatives.
3. Apply various techniques for assessing and managing risk across the portfolio of the enterprise.
4. Evaluate and plan for the integration of emerging technologies.
5. Manage proliferating types and large volumes of content.
6. Plan for business continuity.
7. Understand the benefits and risks of service oriented architecture.
8. Understand the role of audit and compliance in enterprise architecture.
9. Apply IT control and management frameworks, such as ITIL and COBIT.

Topics

- Enterprise architecture frameworks
- Service oriented architecture
- Systems integration
- Enterprise resource software
- Monitoring and metrics for infrastructure and business processes
- Green computing
- Virtualization of storage and systems
- The role of open source software
- Risk management
- Business continuity
- Audit and compliance
- IT control and management frameworks
- Total cost of ownership and return on investment
- Software as a service
- Content management

- Emerging technologies

Discussion

- The course can be structured at varying levels of technical depth
- The course can be a relatively easy way to introduce newer technologies into the curriculum, e.g. Web 2.0.
- This course operates at a higher level of abstraction than a typical infrastructure course, and it includes significant coverage of business issues related to an enterprise's technology architecture.
- This is the context in which the students are introduced to modern enterprise IT concepts, such as Service Oriented Architecture (SOA), green computing, and Software as a Service (SaaS).
- This course would also cover the topics related to IT control and management frameworks (COBIT, ITIL, etc.)

