67-306 COURSE SYLLABUS
MANAGEMENT OF COMPUTER AND INFORMATION SYSTEMS
(6 UNITS)

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PREREQUISITE: None

READINGS: Corporate Information Strategy and Management Text and Cases
7th Edition, Linda M. Applegate, Robert D. Austin, and F. Warren McFarlan

Various course materials are contained in the course Blackboard Handout and Assignment sections.

WEB ACCESS PERIODICALLY:
www.computerworld.com www.wikipedia.com
www.whatis.com www.cio.com
http://video.zdnet.com/CIOSessions/ http://www.itgi.org/

GRADING:

Final Exam	64%
2 short papers (2, 8 points)	10 %
Class participation/research	26%

COURSE FOCUS:
Increasingly organization survival and/or efficiency are related to the ability to acquire and maintain excellent information about itself and competing organizations. Information treated as a resource for strategic planning and operational management has a value like other assets in the organization. The information asset must be quantified and accounted for as such assets as land and equipment.
Once information is placed in the proper perspective, management issues regarding the creation and protection of information assets become relevant and important. There is an emerging need for faster access to critical information by all of the decision makers, of the quality and quantity that is needed to make better decisions. This course will explore necessary management actions and alternatives to IT delivery which will insure that information is available, secured, protected, and archived for recovery in proper forms and locations. All levels of management have the burden of insuring that appropriate information systems are in place to bring about a productive profitable organization. Management is accountable and expected to understand how to gain substantial value using technology. The objective of this course is to meet the challenges which are substantial. Information Technology Services departments will be required to increase system performance and improve availability while simultaneously cutting costs while improving quality, measured by customer's satisfaction. The use of best practices methods and metrics must be considered for improvement for already in place. Information technology professionals need to acquire business skills to compliment their traditional technical skills. Business professionals need to acquire technology value, acquisition, and implementation skills. We will learn how these skills can be applied effectively to reduce systems costs and improve the quality without reducing services.

COURSE ADMINISTRATION:
This course will include lectures, videos, in-class discussions, guest speakers, case studies, student research with formal presentation.

Attendance is required for the entire period each week. Students are expected to be prepared and seated for the class at start time.

Except for the first class, all assigned chapters, case studies, and other readings are to be read before coming to class. Due to the variety of subject matter covered and the necessity of continual learning to update oneself, there is a large amount of material to be read. Staying current is expected for classroom discussion.

All written assignments are to be turned in on or before the assigned due date. Assignments submitted after this time but within one week will receive one half credit. Assignments submitted after this time will receive no credit. Assignments are to be turned in using the digital drop box.

Students will be asked to research and present relevant articles for discussion in class, participation points will be acquired through this activity.

On the first evening, we will discuss the course and school policy regarding the very serious matter of student cheating and plagiarism. Students found cheating at any time will be dismissed from this course and receive an F.

Regarding in class recording of lectures: "No student may record or tape any classroom activity without the express written consent of Christopher Kowalsky. If a student believes that he/she is disabled and needs to record or tape classroom activities, he/she should contact the Office of Disability Resources to request an appropriate accommodation."

CLASS SCHEDULE:

Week 1 **The Challenges of Managing Information Systems and Technology**

Read: Introduction Chapter

Objectives: Understand how IT can add value;
Determine the many components of IT management;
Realization of the many stakeholders/partners responsible to create IT success.

Assignment (2 pages):
Topic: Information Technology Planning Process. Interview or research using the Internet an organization or a department for the purpose of documenting their I.T. planning process - who what, where, why, when, how? Determine and discuss links to the organization's strategic plan, if possible.
Due for classroom discussion in week 2. A few students will be asked to present their findings and solutions.

In Class video "Innovative Technology" What are the issues and service levels?

In-Class assignment: Determine the IT and business related challenges emerging.

Week 2 **Strategic Information Systems Plan: IT Strategy and Organization Strategy**

Read: Chapter 1,2, 4 and Bb handout/Reference Library: Fidelity Investments;
Read: Bb handout: Federal Express and Wal-Mart IT direction, organization involvement and support, and CIO vision and responsibilities.

Objectives: Understand how IT should be planned in organizations which the use of IT varies in value and needs.
Learn how to determine if the organization uses IT strategically or in support only.
Determine what is to be contained in an IT Strategic Plan. Learn how the industry standard COBIT can assist in determining the overall IT strategy and execution.

Video: Professor Warren McFarlan "Strategic Planning" reasons and examples.

This lecture will concentrate on the need for and development of an IT Strategic Plan.

Second half:

Top management must be involvement for successful information technology development and management. Successful implementation and use of Information Technology can be traced to management direction and oversight. This lecture will explore the various ways to create and maintain success.

Objectives: Understand management's role in providing IT value and success; key involvement initiatives and monitoring activities will be explored; how successful IT plans are created and managed using real examples.

Research "Managing Information Systems Priorities by Committee". The need for IT Governance.

Class discussion: First paper, IT Planning Process investigation.

Guest Speaker: Gary Becker CIO Reed Smith

Week 3

Chief Information Officer (CIO) and the Information Services Resource

Chapter 8, 9

Read Bb Lecture note for class discussion: Don Morchower, CIO of Highmark

Read Bb handout: CIO Reporting Model and CIO of the Year, Fed Ex Rob Carter

Read Bb handout: IT staffing, organizing IT and risk management

Access: www.cio.com and www.computerworld.com for additional IT Leadership information.

Objectives: Determine key skills, traits, levels of experience enabling the CIO to be successful.

Understand the support area skills of the IT department, staff retention and overall management requirements, and how the IT organization structure is designed based on the type of industry, business use of IT, and strategy deployed.

Critical assessment of sourcing IT support and technology and related decision making and outsourcing management.

Guest Speaker:

The lecture will develop the scope of responsibilities of the top I.T. leader and associated support staff. The skills, traits, and unique staff requirements will be addressed. We will discuss how the IT leadership and the IT staff will be successful and add value to the organization. Also personnel selection and job enrichment will be explored.

Organization Issues in Information "Systems Development Life Cycle". Insuring IT productivity and high quality performance through use of best practices.

Systems Development priority setting criteria; Quality and Productivity Process, such as CMU's Comparability Maturity Model CMM, ITIL, and ISO 9001-2000. Research (web sites below can be a starting point) the above methodologies before class.

Access: www.sei.cmu.edu/cmmi
http://www.iso.org/iso/en/ISOOnline.frontpage

Read Bb handouts: Six Sigma (lean), ISO, CMMI, and ITIL materials

Objectives: Learn how higher level of quality is achieved by the use of best practices.
Understand how best practices can be implemented into the IT organization successfully.

For discussion: Do organizations have a choice of quality or speed of delivery or can both be obtained? Video for classroom discussion: Gene Trudell, CIO of USS "IT quality and customer satisfaction".

Week 4-5 **Information Technology Controls, Acquisition, Vendor Relationships and Contract Negotiation**

(5th) Guest Speaker: Audit Manager from E&Y discusses IT Auditor's roles and responsibilities and the reasons I.T. departments and procedures are reviewed annually.

(4th) Guest Speaker: Steve Huth, Carnegie Mellon University CIO, Enterprise Systems.

Chapter 7
Read: Various Lecture notes on Request for Proposal and Contracts.
Assignment: Analyze vendor contracts, due in two weeks.

Objectives: IT procurement is a science and can end up being an economic advantage to the organization with some best practices for purchasing, to manage relationships, and to reach mutually acceptable agreements. What is learned will be reinforced with a homework assignment to simulate real business activities.

This lecture will address the necessity of using a structured, controlled approach to selecting hardware, software or consulting services. Tools, techniques and methods will be explored. We will discuss how to negotiate a contract, which will be to our organizations advantage. Once the contract is signed the proper form of project management will be discussed to bring about an on time, on budget implementation.

Project Management
Chapter 10
Access: www.pmi.org http://associate.com/gantt
http://www.netmba.com/operations/
http://www.netmba.com/operations/project/pert/

Objectives: Learn best practices for project management and IT leadership. "If you are not creating a plan, you are planning to fail". The class will explore the need for project management outsourcing and how to insure that the organization creates the appropriate business relationships with each provider of IT services.

Project management and leadership areas to be discussed such as:
Project management Institute's (PMI), Project planning techniques (GANTT, PERT) Structured Walk through, and Management of Package Software (Implementation, Enhancement, Conversions and training considerations).

Project management considerations and approaches will be covered as a major success factor to achieve expected use of information technology.

Week 5-6 **Securing IT insuring System Availability**

Information Asset Controls

Chapter 6

Read various security and availability lecture notes.

Objectives: Understand why organizations are at high risk and exposure due to the continued expansion of technology for employees and customers.

Learn management functions to accommodate dependency on technology increasing at most organizations due to the integration of technology with nearly all aspects of personal and on the job life. Immediate system response and continuous availability is a requirement.

This lecture will address the necessary policies, processes, technologies, and people needed to be in place in order for organizations to have confidence that IT security is appropriate. Laws protect people that have their information in organizations data bases. Organizations are at risk if a security awareness and protection program does not exist. Management of services levels to manage the customer needs will be reviewed.

Guest Speaker: Chief Security Officer

Disaster Planning, (Business Continuity Planning)

Review the following web sites:

Access: www.drj.com

www.contingencyplanning.com

Search: "The Foreign Corrupt Practices Act", 1979

Review: Bb Handouts/Reference Library and

http://www.youtube.com/watch?v=TaGScx5G9yU

Objectives: Understand why IT dependency creates the need to manage in an environment which provides for failover to technology in the event of an unusual situation. Learn how this requirement comes about and how is it known that it works when needed.

The critical need of a detailed, formal business recovery plan will be discussed in association with the governing law. Procedure creation will be reviewed in conjunction with a case study delineating a real business recovery, which occurred a short time ago.

In-class video: "Back in Business"

Week 7 **Evaluation of I.S. Strategic Plans and Business Continuity Preparedness Plans**

Guest Speakers November: Michael Keslar and Alex Jonanovich, BNY Mellon, IT Outsourcing Project Management.

Student research presentations.
Review for Final.

Week 8 **Final Exam**
The Final exam will be composed of various essay questions. Questions will cover all course content.