Syllabus Outline: 32-IT-455-901 Management in Information Technology

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General Information:

Instructor: Ralph Brueggemann
Instructors office: 238 Health Professions Building (Medical Center Campus)
Phone: 558-0735
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Blackboard site: http://blackboard.uc.edu
Course Schedule: Wednesday 6:00-8:50 PM
Course Location: 312 Braunstein
Office Hours: By Appointment

General Description of Course:

This course focuses on management activities and specific issues for managers in information technology. It is designed as an intensive study of a subject within the framework of an exchange of research and ideas among learners.

Description in Bulletin:
General management techniques and specific issues and tools for project management in information technology

Goals:

1. Learners should understand the theory behind the practice of management.
2. Learners should understand the practice of management in a professional environment.
3. Learners should understand the fundamentals of project management.
4. Learners should understand the types of areas in which information technology plays a significant role.
5. Learners should demonstrate their grasp of the application of theories and practice of management through presentation of findings from their research on a specific area of concentration in which information engineering technology plays a substantial role.
6. Learners should demonstrate professional attitudes and practices as participants in class.
7. Learners should demonstrate an ability to communicate on several levels:
   a. rhetorically, as presenters within the atmosphere of a seminar in which there is an intensive exchange of information and ideas;
   b. interpersonally, as colleagues who are analyzing and assessing information and ideas presented by others,
   c. interpersonally, as learners interacting with professional practitioners of information engineering technology, and
   d. in writing, as learners communicating their research-based analysis and evaluation of information and ideas.
8. Learners need to assess, synthesize and apply the five functions that managers perform: planning, organizing, staffing, directing (leading and motivating) and controlling.
9. Learners need to formulate and understand the three roles of managers in an organization: interpersonal role, informational role and decisional role.
10. Learners need to assess, synthesize and apply the three managerial skills: conceptual skills, human relations (interpersonal skills) and technical skills.
11. Learners need to be able to assess and synthesize the principles of leadership and be able to choose the most effective leadership style.
12. Learners need to assess and assimilate the project management body of knowledge:
   a. Integration management
   b. Scope management
   c. Time management
   d. Cost management
   e. Quality management
   f. Human resources management
   g. Communications management
h. Risk management  
i. Procurement management

**Objectives:**

13. Learners need to be able to assess and synthesize staffing (acquiring, developing and sustaining) practices.

14. Learners need to be able to assess and synthesize the concepts human resources management regarding stress, conflict management and negotiation.

15. Learners need to formulate an understanding of how to apply the triple constraint and make tradeoff decisions
   a. Customer requirements specifications
   b. Schedules
   c. Budgets and resources

16. Learners need to understand that knowledge, attitudes and skills that managers perform are uniquely different from those of others in an organization.

17. Learners need to understand that the effectiveness of managers is judged by the results that they obtain for the organization by using the resources available to them.

18. Learners need to understand that effective managers are able to discern differences between situations and to apply methods whose appropriateness is contingent upon the dominant factors in each situation.

19. Learners need to assess, synthesize and develop an understanding of how to meet customer needs.

**Exam:**

**Final Exam:** Text and Lectures: 100 multiple choice questions

**Assignments:**

There are a variety of assignments for this class, the major one of which is a group presentation (300 points). Virtually all require your participation.  
*No late assignments will be accepted.*

Assignments:  

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
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<tbody>
<tr>
<td>Assignment 1 Essay on Mission Statement</td>
<td>150 points</td>
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<tr>
<td>Assignment 2 Essay on Article Review</td>
<td>150 points</td>
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<tr>
<td>Assignment 3 Presentation</td>
<td>300 points</td>
</tr>
<tr>
<td>Assignment 4 Essay Integration</td>
<td>150 points</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>750 points</strong></td>
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Evaluation:

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>750</td>
</tr>
<tr>
<td>Final Exam</td>
<td>250</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
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</table>

All evaluations follow commonly accepted professional standards of quality. Expectations and criteria for specific assignments will be communicated to learners as the course progresses.

The final evaluation will be based on a percentage of the total number of points, with the following scale applied:

- A = 92-100%
- B+ = 87-91%
- B = 84-86%
- B- = 80-83%
- C+ = 77-79%
- C = 74-76%
- C- = 70-73%
- D+ = 67-69%
- D = 64-66%
- D- = 60-63%

Professional Attitudes and Practices:

Attendance:

This course will be conducted as a seminar and may include guest speakers. You are expected to exercise good manners; thus, you are expected to come to class and to come to class on time. Absences will reduce your final evaluation substantially since missing one class for a class that meets weekly is like missing an entire week.

Late Arrival and Early Departure:

Please do no disrupt the class by late arrival or early departure.

Late Assignments:

No late assignments will be accepted.
Personal Conduct:

The classroom is affected greatly by the personal conduct of learners: please do not sleep, do not do homework or personal work, do not read books, magazines, newspapers, or other matter and do not hold personal conversations.

Participation is the essence of a class like this: if you are participating, then there should be none of these problems.

Removal:

A learner may be "pink-slipped" by the instructor at any time for a pattern of conduct that they judge to be unsuitable: this includes violations of the elements outlined under Personal Conduct”.

Plagiarism:

Plagiarism is presenting someone else’s work as one’s own. This will result in an evaluation of "F" for the course.

Text:


Readings:

There is a collection of readings on the Blackboard site, as well as links to other online sources you should use. They are filled with a great deal of useful information collected from a variety of professional sources.

Electronic Communications:

Your official UC student email address is your Bearcat Online account. Items such as registration information, billing notices, and financial aid awards are sent to our UC student email address @uc.edu. All such communications will now be sent to you at one convenient location: Bearcat Online. Go to http://email.uc.edu to check your account. Please make sure that you current email address is maintained in Blackboard.
Schedule:

This schedule is tentative and subject to change depending upon circumstances.

1. January 5  
   Orientation.  
   Class Goals  
   Chronic and Acute Problems  
   Management concepts  
   Technology issues  

   Assignment  
   Introduction to Project Management  
   Chapter 1  

2. January 12  
   Management fundamentals  
   Managerial terminology (mission, strategy, vision, culture, responsibility, authority, delegation & power)  
   Business Trends  
   Staffing  

   Assignment  
   Review Readings: 1 through 12  
   The Project Management and Information Technology Context  
   Chapter 2  
   The Project Management Process Groups: A Case Study  
   Chapter 3  
   Pages 63-71  

3. January 19  
   Management fundamentals  
   Organizing  
   Stress Management  
   Conflict Management  

   Assignment  
   Review Readings: 1 through 12  
   Project Integration Management  
   Chapter 4  
   Assignment 1 Due
Schedule:

4. **January 26**
   - Project Management fundamentals
   - Project Management Overview
   - Project Management Steps
   - Triple Constraint

   **Assignment**
   - Review Project Management Readings: 1 and 13 through 20
     - Project Scope Management Chapter 5
     - Project Time Management Chapter 6

5. **February 2**
   - Managerial Cost/Quality Issues
   - Cost Estimating
   - Project Management Crashing
   - Critical Chain

   **Assignment**
   - Review Media Readings: 1 and 21 and 22
     - Project Cost Management Chapter 7
     - Project Quality Management Chapter 8
     - Assignment 2 Due

6. **February 9**
   - Human Resource Management
   - Education and Training
   - Behavior
   - Motivation
   - Teambuilding
   - Seven and Eighth Habit

   **Assignment**
   - Review Education and training-Readings: 1 and 23 and 24
     - Project Human Resource Management Chapter 9

7. **February 16**
   - Managerial Communications
   - Perception
   - Interactive Skills
   - Information Protection, Security, Compliance and Privacy

   **Assignment**
   - Review Security, Compliance-Readings: 1 and 25 through 29
     - Project Communications Management Chapter 10
     - Assignment 3 Due
Schedule:

8. February 23  
   Business Management  
   Risk Management  
   Negotiation Skills  
   Business: Entrepreneurship  
   E-Business, E-Commerce

Assignment  
Business-Readings: 1 and 30 through 34  
Project Risk Management  
Assignment 3 Due

9. March 2  
   Globalization  
   Quality Concepts  
   Enterprise Architecture Issues  
   Best Practices  
   Modern Development  
   Leadership

Assignment  
Review Readings: 1 and review 35 through 37  
Project Procurement Management  
Assignment 3 Due

10. March 9  
    Summary and Conclusions:  
    the management of information technology:  
    Creativity  
    Change Management  
    Law of Unintended Consequences  
    Multiple Intelligences (Eighth Habit)

Assignment  
Readings:  Review all readings  
Assignment 4 Due (This assignment integrates all of the knowledge and skills that you learned)

11. March 16  
    Exam
Major Themes:

1. Customer focus
2. Organizations need a mission, vision, strategy and culture that is aligned
3. Business environment, do not assume the organization you work for will be around tomorrow
4. You must be trustworthy to create trust; relationships are built on trust
5. You have the power to choose, to decide
6. You have to take the initiative, to take responsibility, carpe diem
7. Principles (natural laws, such as honesty) need to be linked to values and then to decisions
8. Character and competence precedes self management
9. Self management precedes management
10. Management skills are earned and learned to given.

Model Agenda:

A typical class will be comprised of the following events;

1. Presentation of agenda and goals.
2. Review of prior week key ideas.
3. Class material.
4. Discussion and student interaction to pursue specific areas of interest and encourage further thought and involvement.
5. Questions.
6. Post class review for student support.
Videos by Lecture:

1. Lecture 1
   1.1. A Christmas Carol
   1.2. Max and Max
   1.3. Dead Poet's Society
2. Lecture 2
   2.1. City Slickers
   2.2. How Am I Doing
   2.3. Discovery of Character
3. Lecture 3
   3.1. Chariots
   3.2. Braveheart
   3.3. Slap Shot
   3.4. Platoon
4. Lecture 4
   4.1. Miracle
   4.2. Field of Dreams
5. Lecture 5
   5.1. Sister Act
   5.2. Quality
6. Lecture 6
   6.1. What You Are…
7. Lecture 7
   7.1. Abraham Lincoln
8. Lecture 8
   8.1. Butch Cassidy
   8.2. Big Rocks
   8.3. Godfather
   8.4. Tuskegee
9. Lecture 9
   9.1. Kennedy
   9.2. King
   9.3. Nixon
   9.4. Clinton
10. Lecture 10
    10.1. Pay It Forward
Videos by Topic:

Selected videos will be used to ensure understanding of the course content.

1. Style
   1.1. A Christmas Carol-work environment, withholding resources
   1.2. Patton-abusive style
2. Responsibility
   2.1. Dead Poets Society-take responsibility
3. Goals/Purpose
   3.1. City Slickers-your purpose
4. Character and Values
   4.1. Chariots of Fire-principles
   4.2. Erin Brockovich-integrity
   4.3. The Insider-integrity
   4.4. Tuskegee Airmen-equity
   4.5. Liberators-equity
   4.6. A Question of Character
5. Communication
   5.1. Abraham Lincoln
6. Conflict
   6.1. Platoon-we have met the enemy and it is us, conflict, emotion, perspective
   6.2. Slap Shot-conflict in sports, emotion, humor
   6.3. Braveheart-conflict for freedom
   6.4. A Bug’s Life
7. Perception/Paradigm Shift
   7.1. Butch Cassidy and the Sundance Kid
8. Leadership
   8.1.1. Martin Luther King
   8.1.2. Primary Colors
   8.1.3. John Kennedy
   8.1.4. Nixon
9. Creativity/Innovation
   9.1. Pay It Forward
   9.2. Brother Bear
References:


5. The 8th Habit, Stephen R. Covey, Free Press, Simon and Schuster, 2004


Resources:

Blackboard will be used for all course materials. Please make sure that you review it periodically. Changes to the syllabus will be posted to Blackboard.

http://Blackboard.uc.edu

Student materials are available via download from the publisher’s web site.

http://www.course.com

### Appendix

#### Academic Calendar

**Winter Quarter, 2005**

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
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</thead>
<tbody>
<tr>
<td>Classes begin</td>
<td>Monday, Jan 3</td>
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<tr>
<td>Holiday, Dr. Martin Luther King's Birthday</td>
<td>Monday, Jan 17</td>
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<tr>
<td>Classes end</td>
<td>Sunday, March 13</td>
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<tr>
<td>Exams begin</td>
<td>Monday, March 14</td>
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<tr>
<td>Exams end</td>
<td>Sunday, March 20</td>
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<tr>
<td>Winter Quarter ends</td>
<td>Sunday, March 20</td>
</tr>
<tr>
<td>49 Instructional Days (M-F)</td>
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Appendix Value of IT

Costs

Use information technology to drive a cost-reduction strategy.

1. The integrated database will allow for a consolidation of information reducing redundancy and costs.
2. The Imaging system will allow for more cost-effective handling of paper.
3. With database technology, program development and maintenance costs can be radically reduced.

Access to Information-Value for end-users

End users will have access to all the information they need.

1. End-user will have access to information that is accurate, current and timely.
2. End user will have the ability to update the operating unit data that exists in an integrated database.
3. End users will have the ability to access the controlled data.
4. End user will have the ability to manage their documents on an imaging system.
5. With database technology, flexibility of information system can be greatly enhanced by permitting rapid and inexpensive ad hoc queries of very large pools of information.
6. With database technology, access and availability of information can be increased.

Simplification

1. With database technology, the central management of data, access, utilization and security can reduce the complexity of the organization’s information systems environment.
2. With database technology, the elimination of all the isolated files in which the same data elements are repeated can reduce data redundancy and inconsistency.
3. With database technology, providing central control of data creation and definitions can eliminate data confusion.
4. Separating the logical view of data from its physical arrangement can reduce program-data dependence. This will allow more effective software maintenance.
Appendix Value of IT

Processes

1. Information technology will be used redesign business processes and create a more interactive and time sensitive management information system.

2. With the integrated system, the work flow can be redesigned reducing unnecessary steps. This will allow for a complete rethinking of how the work is done.

Knowledge

1. Information systems unleash knowledge that allows decentralized operations to run more effectively. Front-line managers can respond to local conditions more rapidly in a decentralized organization with better access to information. This allows local operating units to be more responsible to competition.

2. Data can be moved from centralized databases to personal data bases for use in specific needs or for ad hoc requests.

Service

1. Customer service will improve as the system will be designed to allow the users to be more effective.

2. A help facility will be developed to reduce dependence on support resources.

3. Information will be provided on demand providing high levels of customer service.

People

1. Use technology to drive change (allow operating units access to data allows them to operate in a different and better way) (Phillips Case)

2. Use technology to increase people effectiveness

3. Using employees to drive continuous improvement through improved work flow

Quality

1. The system will be designed to enforce scrupulous quality standards ensuring high data integrity.

2. The system will be backed up and protected from harm.
## Appendix Project Management Deliverables

<table>
<thead>
<tr>
<th>Project Management Deliverables</th>
<th>Responsibility</th>
<th>Date Due</th>
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<tbody>
<tr>
<td><strong>Initiation deliverables:</strong></td>
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<tr>
<td>Project overview/description</td>
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<tr>
<td>Business case (financial analysis)</td>
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<td>Project charter (formally recognizes project)</td>
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<td>Team contract (agreement to work together)</td>
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<tr>
<td><strong>Planning deliverables:</strong></td>
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<td></td>
</tr>
<tr>
<td>Stakeholder analysis (documents people involved in or affected by project)</td>
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<tr>
<td>Scope statement (what is included in the project, not included)</td>
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<tr>
<td>Specifications (software deliverables such as customer requirements and designs)</td>
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<tr>
<td>Work breakdown structure (WBS) (the basis for deciding how to do the work)</td>
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<tr>
<td>Gantt chart and network diagram</td>
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<tr>
<td>Estimated project costs</td>
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<tr>
<td>Probability/impact matrix and list of prioritized risks</td>
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<tr>
<td>Quality assurance plan</td>
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<tr>
<td>Configuration management plan</td>
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<tr>
<td><strong>Executing deliverables:</strong></td>
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<tr>
<td>Building iterations of the application</td>
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<tr>
<td><strong>Controlling deliverables:</strong></td>
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<tr>
<td>Comparison of actual results with the schedule, budget and customer requirements</td>
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<tr>
<td>Apply configuration management</td>
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<tr>
<td>Periodic status reports</td>
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<tr>
<td><strong>Closing deliverable</strong></td>
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<tr>
<td>Lessons Learned Reports</td>
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</tbody>
</table>
Appendix Project Management Body of Knowledge

(Source: IT Project Management, Thomson, 2004, Kathy Schwalbe)

1. What is Project Integration Management?
   1.1. Project Integration Management involves integrating the other project management knowledge areas within the project as well as integrating different areas outside the project.

2. What is Project Scope Management?
   2.1. Scope refers to all the work involved in creating the products of the project and the processes used to create them. It defines what is or is not to be done
   2.2. Deliverables are products produced as part of a project, such as hardware or software, planning documents, or meeting minutes

3. What is Project Time Management?
   3.1. Project time management involves the processes required to ensure timely completion of a project. Processes include:
      3.1.1. Activity definition
      3.1.2. Activity sequencing
      3.1.3. Activity duration estimating
      3.1.4. Schedule development
      3.1.5. Schedule control

4. What is Project Cost Management?
   4.1. Project cost management includes the processes required to ensure that the project is completed within an approved budget
   4.2. Project managers must ensure their projects are well defined, have accurate time and cost estimates, and have a realistic budget that they were involved in approving.

5. What is Project Quality Management?
   5.1. Conformance to requirements means the project’s processes and products meet written specifications.
   5.2. Fitness for use means a product can be used as it was intended.
6. What is Project Human Resource Management?
   6.1. Project human resource management includes the processes required to make the most effective use of the people involved with a project. Processes include
       6.1.1. Organizational planning
       6.1.2. Staff acquisition
       6.1.3. Team development

7. What is Project Communications Management?
   7.1. Communications planning: determining the information and communications needs of the stakeholders
       7.1.1. Information distribution: making needed information available in a timely manner
       7.1.2. Performance reporting: collecting and disseminating performance information
       7.1.3. Administrative closure: generating, gathering, and disseminating information to formalize phase or project completion

8. What is Project Risk Management?
   8.1. The goal of project risk management is to minimize potential risks while maximizing potential opportunities. Major processes include
       8.2. Risk management planning: deciding how to approach and plan the risk management activities for the project
           8.2.1. Risk identification: determining which risks are likely to affect a project and documenting their characteristics
           8.2.2. Qualitative risk analysis: characterizing and analyzing risks and prioritizing their effects on project objectives
           8.2.3. Quantitative risk analysis: measuring the probability and consequences of risks
           8.2.4. Risk response planning: taking steps to enhance opportunities and reduce threats to meeting project objectives
           8.2.5. Risk monitoring and control: monitoring known risks, identifying new risks, reducing risks, and evaluating the effectiveness of risk reduction

9. What is Project Procurement Management?
   9.1. Procurement planning: determining what to procure and when
   9.2. Solicitation planning: documenting product requirements and identifying potential sources
   9.3. Solicitation: obtaining quotations, bids, offers, or proposals as appropriate
   9.4. Source selection: choosing from among potential vendors
   9.5. Contract administration: managing the relationship with the vendor
   9.6. Contract close-out: completion and settlement of the contract