CSC 433 – INFORMATION TECHNOLOGY PROJECT MANAGEMENT

CREDIT HOURS: 3
PREREQUISITES: Nine advanced hours of computer science.
GRADE REMINDER: Must have a grade of C or better in each prerequisite course.

CATALOG DESCRIPTION

This course addresses the need for IT developers and analysts to develop and manage large IT-related projects. This course will cover developmental lifecycles, and discuss requirements collection and analysis. It will also include coverage of multiple areas of IT project management such as quality management, HR management, project scope management, etc. Project management approaches and stakeholder management will also be addressed. May not be used to satisfy computer science requirements for a computer science or computer information systems major or minor.

PURPOSE OF COURSE

This course will provide students majoring in Information Technology with an in-depth understanding of project and project management, as it applies to IT and computer-based systems. The course will include a hands-on project involving group work. The course will parallel material covered in the PMBOK (Project Manager's Body of Knowledge), but will focus on processes that work for large-scale IT systems development. The course will cover the full lifecycle approach to project management, from feasibility analysis through "lessons-learned" project wrap-up meetings.

EDUCATIONAL OBJECTIVES

Upon successful completion of the course, students should be able to:

1. Identify the skills and knowledge necessary for project management.
2. Describe techniques of requirements identification, including interviews, observation, questionnaires, and applicable sampling methods.
3. Perform cost/benefit analyses of proposed systems, including comparison of alternative means of system acquisition, such as purchase of commercial off-the-shelf (COTS) software.
4. Demonstrate the use of basic time and size estimation techniques.
5. Describe the roles of various Project Management tools, including the PMBPK (Project Managers Body of Knowledge) processes and procedures
6. Demonstrate an ability to perform risk analysis and configuration management needs for medium to large-scale projects
7. Describe the ramifications of design decisions pertaining to product architecture, data storage and access, and information presentation.
8. Demonstrate the ability to plan and lead a project from initiation to closure.

CONTENT **HOURS**

Introduction to Project Management 5
- Basics of Project/Program Management
- A systems-perspective of PM

Components of a PM Activity 5
- Feasibility Analysis
- Gathering and Presenting Facts
- Process Groups

Project Initiation and Integration, Using the PMBOK.....8
- Starting a project
- Project Framework
- Project Charter
- Initial PM plan
- Cost and size estimation

Managing Project Scope 4
- Scope Creep
- Risk Analysis and Risk Management as the Project Progresses
- Configuration Management
- Time Management

Management Aspects 4
- Quality Management
- HR Management – the Human Side of Project and Project Management

Other Aspects of Project Management 4
- Management Styles
- Communications – both Top-Down and Bottom-Up

Capstone Project 12
- Description of Project
- Problem Development
- Presentation of Results

Exams (plus final) 3

TOTAL 45

REFERENCES

Fundamentals of Project Management, no specific author, published by Routledge, 2010.

PMBOK (Project Managers Body of Knowledge), Project Management Institute Standards Committee, published by the Project Management Institute, 2014.

Project Management for Engineering and Technology, by David L. Goetsch , Pearson, 2014.

Readings in Current Trends