ENTD411

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Course Summary

Course: ENTD411 Title: Application Development

Length of Course: 8

Prerequisites: ENTD200 Credit Hours: 3

Description

Course Description: This course covers issues of software project development from the perspective of a manager and of an application developer: from conception, to prototyping, to interfacing with analysts, supervisors/team leaders and management, through to product testing, release, and maintenance. Also covered are issues related to revision control, coding under stress, and strategies for dealing with budget and schedule overruns. Particular attention is given to strategies for maintaining code quality, programmer productivity, and coding and design standards under budget, staffing, and time constraints. Lateral versatility of the developer within project roles across a project's life span (such as often occurs in small software companies) is emphasized.(Prerequisite: ENTD200)

Course Scope:

This course will examine software project management practices and techniques, such as metrics, testing, the software development life cycle, contracts and other legal issues, configuration control, quality assurance, software development standards, and project scheduling.

Objectives

After successfully completing this course, you will be able to:

- Describe the role of a software project manager
- Outline the process of initiating a project and risk analysis
- Analyze different estimation techniques and contracting
- Explain project management processes in application development
- Describe the phases of the software development life-cycle
- Apply best practices for quality assurance of a software development project
- Analyze techniques for managing people during application development
- Apply software project management techniques

Outline

Week 1:
Topics
Software Project Management
Learning Objectives
Describe the role of a software project manager.
Readings
Ashfaque Ahmed Book: Ch
1E.M. Bennatan Book: Ch 1
Assignments
Week 1 Forum
Week 2:
Topics
Project Initiation and Risk Analysis
Learning Objectives
Outline the process of initiating a project and risk analysis
Readings
Ashfaque Ahmed Book: Ch 2, 4, 5
E.M. Bennatan Book: Ch 2
Assignments
Week 2 Forum
Week 2 Assignment
Week 3:
Topics
Estimation Techniques and Contracting
Learning Objectives
Analyze different estimation techniques and contracting
Readings
Ashfaque Ahmed Book: Ch 3
E.M. Bennatan Book: Ch 3

Assignments
Week 3 Forum
Week 3 Assignment
Week 4:
Topics
Project Management Processes
Learning Objectives
Explain project planning, monitoring and control, closure
Readings
Ashfaque Ahmed Book: Ch 1, 2, 6, 7, 8
E.M. Bennatan Book: Ch 7
Assignments
Week 4 Forum
Week 4 Assignment
Week 5:
Topics
Software Development and Handling Large Projects
Learning Objectives
Describe the phases of the software development life-cycle
Readings
Week 5 Forum
Week 5 Assignment
Assignments
Week 6:
Topics
Quality Assurance
Learning Objectives
Apply the best practices for quality assurance of a software development project
Readings

Ashfaque Ahmed Book: Ch 9, 15-17

E.M. Bennatan Book: Ch 8-9

Assignments

Week 6 Forum

Week 6 Assignment

Week 7:

Topics

People Management

Learning Objectives

Analyze techniques for managing people during application development

Readings

Ashfaque Ahmed Book: Ch 18-21

E.M. Bennatan Book: Ch 5

Assignments

Week 7 Forum

Week 7 Assignment

Week 8:

Topics

Software Project Management Tools and Techniques

Learning Objectives

- Describe the role of a software project manager.
- Apply software project management techniques

Readings

Ashfaque Ahmed Book: Ch 22-25

E.M. Bennatan Book: Ch 10-12, Chapter Epilogue

Assignments

Week 8 Forum

Week 8 Final Project

Evaluation

Students are expected to maintain routine contact with the instructor throughout the course. While the number of contacts may vary according to the specific course and individual student need, the University requires periodic weekly contacts during the semester. Contact will consist of professor notes, forum interaction, and email feedback. The method of discussion will be on-line related to issues concerning forum assignments, lesson assignments, and the final project.

TEXTBOOK READINGS

The main book for the course, Beginning Programming for Dummies, will be used for textbook readings. Review the table at the end of the syllabus to see assigned readings for each week.

FORUM

The Forum assignments for this course are designed to promote interactivity among students and enhance the online learning process. The Forum provides maximum flexibility because you do not have to be online at the same time as another person and you can read what other students have written.

Forum Timing: For the forum, you must post your work by midnight on **Thursday**, continue to follow your classmates' posts for the remainder of the week, and post the follow-up peer responses prior to midnight on **Sunday**, *except for week one*. Your follow-up posts can add additional insight to a classmate's opinions or can challenge their opinions. Use examples from the readings, or from your own research, to support your views, as appropriate. Be sure to read the follow-up posts to your own posts and reply to any questions or requests for clarification. You are encouraged to conduct research and use other sources to support your answers.

Required Participation: Please keep in mind that the forum assignments require you to make at least 1 post to the forum with at least 250 words about the topic and also respond to at least 2 peers' posts with at least 150 words. Please be advised that there will be point deductions if you do not comply with these requirements of the assignment. Each one of you will have a different and unique experience that we can all learn from. Your participation in the Forums unleashes the power of synergy in our classroom. To facilitate this interaction, please be prompt when posting your forum work for each week; this provides time for the others to actively engage in the dialogue. For practical reasons, when you respond to other learners' posts, please start your response by referencing their name. I will read and grade your participation by reading the forum. There is no need to also post your forum work in the assignments area of the classroom. Refer to the forum and the syllabus for more details on grading.

WEEKLY ASSIGNMENTS

There will be weekly assignments for this course to reinforce your reading and learning. Students will use Python 3.x to practice programming concepts. Complete the weekly exercises required as stated in the Assignments area; then submit your work in the assignments area of the classroom as required.

FINAL GRADE IS BASED UPON: All work will be graded on a 100-point raw score basis. There are a total of 100 weighted points for this course broken down as follows:

Grading:

Materials

Book Title: On Time Within Budget: Software Project Management Practices and Techniques, 3rd ed. - e-book available in the APUS Online Library; hard copy not available from the APUS Bookstore, please try other sources.

Author: Bennatan, E.M.

Publication Info: Wiley Lib

ISBN: 9780471376446

Book Title: Software Project Management: A Process-Driven Approach - e-book available in the APUS

Online Library

Author: Ahmed, Ashfaque

Publication Info: Taylor & Francis Group

ISBN: 9781439846551

Course Guidelines

Citation and Reference Style

Attention Please: Students will follow the APA Format as the sole citation and reference style used in written
work submitted as part of coursework to the University. Assignments completed in a narrative essay or
composition format must follow the citation style cited in the APA Format.

Tutoring

• <u>Tutor.com</u> offers online homework help and learning resources by connecting students to certified tutors for one-on-one help. AMU and APU students are eligible for 10 free hours* of tutoring provided by APUS. Tutors are available 24/7 unless otherwise noted. Tutor.com also has a SkillCenter Resource Library offering educational resources, worksheets, videos, websites and career help. Accessing these resources does not count against tutoring hours and is also available 24/7. Please visit the APUS Library and search for 'Tutor' to create an account.

Late Assignments

- Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each Assignment.
- Generally speaking, late work may result in a deduction up to 20% of the grade for each day late, not to exceed 5 days.
- As a working adult I know your time is limited and often out of your control. Faculty may be more flexible if they know ahead of time of any potential late assignments.

Turn It In

• Faculty may require assignments be submitted to Turnitin.com. Turnitin.com will analyze a paper and report instances of potential plagiarism for the student to edit before submitting it for a grade. In some cases professors may require students to use Turnitin.com. This is automatically processed through the Assignments area of the course.

Academic Dishonesty

Academic Dishonesty incorporates more than plagiarism, which is using the work of others without citation.
 Academic dishonesty includes any use of content purchased or retrieved from web services such as
 CourseHero.com. Additionally, allowing your work to be placed on such web services is academic dishonesty, as it is enabling the dishonesty of others. The copy and pasting of content from any web page, without citation as a

direct quote, is academic dishonesty. When in doubt, do not copy/paste, and always cite.

Submission Guidelines

 Some assignments may have very specific requirements for formatting (such as font, margins, etc) and submission file type (such as .docx, .pdf, etc) See the assignment instructions for details. In general, standard file types such as those associated with Microsoft Office are preferred, unless otherwise specified.

Disclaimer Statement

• Course content may vary from the outline to meet the needs of this particular group.

Communicating on the Forum

- Forums are the heart of the interaction in this course. The more engaged and lively the exchanges, the more
 interesting and fun the course will be. Only substantive comments will receive credit. Although there is a final
 posting time after which the instructor will grade comments, it is not sufficient to wait until the last day to
 contribute your comments/questions on the forum. The purpose of the forums is to actively participate in an ongoing discussion about the assigned content.
- "Substantive" means comments that contribute something new and hopefully important to the discussion. Thus a message that simply says "I agree" is not substantive. A substantive comment contributes a new idea or perspective, a good follow-up question to a point made, offers a response to a question, provides an example or illustration of a key point, points out an inconsistency in an argument, etc.
- As a class, if we run into conflicting view points, we must respect each individual's own opinion. Hateful and hurtful comments towards other individuals, students, groups, peoples, and/or societies will not be tolerated.

University Policies

Student Handbook

- Drop/Withdrawal policy
- Extension Requests
- Academic Probation
- Appeals
- Disability Accommodations

The mission of American Public University System is to provide high quality higher education with emphasis on educating the nation's military and public service communities by offering respected, relevant, accessible, affordable, and student-focused online programs that prepare students for service and leadership in a diverse, global society.

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