STEVENS
INSTITUTE *of* TECHNOLOGY
THE INNOVATION UNIVERSITY
1870

WESLEY J. HOWE
School of Technology
Management

Systems Analysis and Design
(Undergraduate)

BT421 – Syllabus
Fall 2012

Instructor: Raj Kempaiah
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Office Hours: By appointment only
Telephone: 718-405-3368
WJHSTM Fax: 201-216-5385
Class Time: Tuesday 6:15 – 8:45 PM
Class Room: Babbio Center - Room 122

Required Textbooks:

Alan Dennis, Barbara Haley Wixom, David Tegarden: System Analysis and
Design with UML Version 2.0. An Object Oriented approach 4th Edition.
John Wiley & Sons, Inc. ISBN 978-1-118-03742-3

Recommended Books:

Schach, Steven R.: Introduction to Object-Oriented Analysis and Design with
UML and Unified Process. McGraw Hill Irwin, New York, NY 2004. ISBN 0-07-
293984-2

Robert V. Stumpf, Lavette C. Teague. Object-Oriented Systems Analysis and
Design with UML, Pearson Prentice Hall, ISBN 0-13-143406-3

Valacich, George, Hoffer: Essentials of Systems Analysis & Design, Second
Edition. Prentice Hall, New Jersey 07458. Student ISBN 0-13-101605-9, ISBN 0-
13-140042-8

Valacich, George, Hoffer: Modern Systems Analysis & Design, Second Edition.
Addison Wesley. ISBN 0-201-33841-6

Whitten, Bentley, Dittman: Systems Analysis and Design Methods, 7th Edition,
McGraw Hill Higher Education.

Yeates and Wakefield: Systems Analysis and Design, 2nd Edition. Prentice Hall. ISBN 0273 65536 1

Valacich, George, Batra and Hoffer: Object-Oriented Analysis and Design, ISBN 0-13-113326-8

Course Overview

This course covers the analysis and development of systems to meet the growing demands for information in the organizations. Students will learn how to analyze systems development life cycle, analysis and design techniques, information systems planning and project identification and selection, requirements collection and structuring, process modeling, data modeling, design of interface and data management, system implementation and operation, system maintenance, and change management implications of systems. It looks at current methods and tools such as rapid application development, prototyping, and computer-aided software development (CASE). Procedure models like the waterfall model, spiral, and prototyping approaches as well as the rational unified process are examined in detail.

Grading policy

Grading Elements	Grade Weights
Weekly Assignments	20.0%
Midterm	30.0%
Final Exam	30.0%
Student Reliability/Participation	10.0%
Quizzes	10.0%

Laptops/Netbooks/ipad Policy

Laptops/Netbooks or similar electronic items are not allowed in the class. Students are asked not to bring the laptops to the class.

CELL PHONE USE & STUDENT BEHAVIOR

Use of cell phones, pagers or similar electronic devices is prohibited in the class. All such devices must be turned off or put in a silent mode and cannot be taken out during class. At the discretion of the instructor, exception to this policy is possible in special circumstances.

Leaving the classroom before the end of class is disruptive. If a student absolutely needs to do so, he/she should obtain permission before or at the beginning of class.
Students caught sleeping in class or reading material not related to the subject matter under discussion will be asked to leave the classroom.

Weekly Assignments

On certain weeks you will be given assignment based on the class discussion. Write clearly and proof read your submissions. You can either submit it electronically or in printed form. Grade for late submissions will be reduced by 20% if turned in later than class date.

Your graded assignment will be returned to you in two weeks.

Exams

Exams will be a combination of questions and problem solving exercises. It will cover the materials from class discussions, assigned readings, weekly assignments and so forth.

Quizzes

There will be quizzes which will be given at the beginning of the class. If you miss the quiz it will not be given again.

Student Attendance/Participation

Attendance and Participation are important aspect of the class. If you miss a class you have to do all the work including the assignments. You are expected to participate in the classroom discussions and therefore come prepared with any questions you might have or your understanding and viewpoints on the readings.

Email

   When sending e-mail to the instructor, in the 'subject' line indicate BT421 followed by the topic. Also, include your full name so we know who you are when we respond. If you are attaching any document make sure you scan for the viruses before you send them. Any document found to have virus will be deleted and there will be a penalty imposed.

Ethical Conduct

   Enrollment into the undergraduate program at Stevens Institute of Technology signifies a student's commitment to the Stevens Honor System. It is the responsibility of each student to become acquainted with and uphold the ideals set forth in the Honor System Constitution.

References

Ackoff, Russell L.: A System of System Concepts. Management Science 17 (1971) 11, pp. 661-671.

Alvarez, Rosío; Urla, Jacqueline: Tell me a good story: Using narrative analysis to examine information requirements Interviews during an ERP implementation.ACM SIGMIS Database 33 (2002) 1, pp. 38-52.

Butler, Kelley L.: The Economics of Software Process Improvement. Online Paper at http://www.stsc.hill.af.mil/crosstalk/1995/07/Economic.asp July 1995.

Curtis, Bill; Kellner, Marc I.; Over, J.: Process Modeling. Communications of the ACM 35 (1992) 9, pp. 75-90.

Ewusi-Mensah, K.: Critical issues in abandoned information systems development projects. Communications of the ACM, 40(1997) 9, pp. 74-80.

Herbsleb, James; Carleton, Anita; Rozurn, James; Siegel, Jane; Zubrow, David: Benefits of CMM-based Software Improvement: Initial Results. Technical Report CMU/SEI-94-TR-013, Carnegie Mellon University, Pittsburgh, PA 1994.

Hoffer, A.: When Will the Rubber Hit the Road for Web Services. eAI Journal, October 2002, pp. 8-11.

Humphrey, W. S.: Characterizing the Software Process: A Maturity Framework. IEEE Computer, 21 (1988) 3, pp. 48-56.

Kruchten, P. (2001). What is the Rational Unified Process. The Rational Edge January 2001

Markus, M. L., & Keil, M. (1994). If We Build It, They Will Come: Designing Information Systems That People Want to Use. Sloan Management Review, 35(4), pp. 21-31.

Paulk, M. C.; Curtis, B.; Chrissis, M. B.; Weber, C. V.: The Capability Maturity Model for Software. IEEE Software 10 (1993) 4, pp. 18-27.

Reifer, D.; Chatmon, A.; Walters, C. D.: The Definitive Paper: Quantifying the Benefits of Software Process Improvement. Software Tech News 5 (2000) 4. Online Paper at: http://www.dacs.dtic.mil/awareness/newsletters/stn5-4/definitive.html