COURSE OUTLINE
2015/2016

COURSE NAME: Software Engineering I: Product Research Concepts

COURSE CODE: BAIS3130

COURSE DESCRIPTION

This course will examine the process of software development within the Unified Process environment, concentrating on the many tasks within requirements, analysis and design. The focus of this course is an analysis and design of a computerized business solution for an organization concentrating on Object-Oriented Analysis (OOA) and Object-Oriented Design (OOD) techniques. The primary deliverables for this course are Inception phase artifacts and Elaboration phase artifacts that support the Unified Process method of software development.

Course Credits: 3.00

Co-requisites: BAIS3150

LEARNING OUTCOMES

OUTCOME	Upon successful completion of this course, you will be able to
1	Capture and formulate business requirements. The following concepts, skills, and issues are used to support this Outcome: • Candidate requirements • Understand system context • Capture functional requirements • Capture nonfunctional requirements
2	Identify and mitigate software project risks. The following concepts, skills, and issues are used to support this Outcome: • Project risk • Critical risk, Significant risk, Ordinary risk • Mitigation strategy • Contingency plan
3	Develop a software project schedule. The following concepts, skills, and issues are used to support this Outcome: • Iterative and incremental • Project risk • Requirements ranking • Iteration planning • Software estimation

4	Establish an architectural foundation.	

Establish an architectural foundation.

The following concepts, skills, and issues are used to support this Outcome:
- Architecture centric
- Software architecture
- Architectural analysis
- Designing a solution
- Implementation of a design
- Testing your implementation

5 — Prepare a business case.

The following concepts, skills, and issues are used to support this Outcome:
- Business bid
- Economic gains

STUDENT EVALUATION

OUTCOME	ACTIVITY DESCRIPTION	MARK DISTRIBUTION
1	Requirements Documentation - Inception Artifacts	10%
1	Requirements Documentation - Elaboration Artifacts	25%
2	Risk List	5%
3	Software Project Schedule/Development Plans	15%
4	Architectural Foundation - Inception Artifacts	5%
4	Architectural Foundation - Elaboration Artifacts	30%
5	Initial Business Case	5%
5	Business Case	5%
	TOTAL	**100%**

COMPLETION REQUIREMENTS

Standard D or no less than 50%.

REQUIRED LEARNING RESOURCES

Ivar Jacobson, Grady Booch, James Rumbaugh. (1999). The unified software development process. (First.). Reading, Mass : Addison-Wesley, c1999. ISBN: 0201571692.

Craig Larman. (2005). Applying UML and patterns: an introduction to object-oriented analysis and design and iterative development. (Third.). Upper Saddle River, N.J. : Prentice Hall PTR, 2005. ISBN: 0131489062.

STUDENT EQUIPMENT AND SUPPLIES

No additional supplies are required.

DELIVERY METHOD

This course will be taught using a variety of delivery methods which may include face-to-face, online, or blended teaching platforms. Activities such as collaborative exercises/assignments, seminars, labs, discussion, audio/visual presentations, case studies, and practicums may be used to support learning.

STUDENT RESPONSIBILITY

Enrolment at NAIT assumes that the student will become a responsible citizen of the Institute. As such, each student will display a positive work ethic, assist in the preservation of Institute property, and assume responsibility for his/her education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

EQUITY STATEMENT

NAIT is committed to providing an environment of equality and respect for all people within the learning community, and to educating faculty, staff, and students in developing inclusive teaching and learning contexts that are welcoming to all.

Leadership Review Date: July 30, 2015

Curriculum Committee Review Date: March 03, 2013