الجامعـــــــــة الهاشـــميـــــــــة
كلية الامير الحسين بـــــن عبدالله الثاني لتكنولوجيا المعلـــومات

**The Hashemite University**
**Prince Al-Hussein Bin Abdullah II Faculty for Information Technology**
**Department of Software Engineering**

**Course Syllabus**
**First Semester 2018/2019**

| | |
|---|---|
| **Course Title:** Software Project Management **(Master)**<br>**Course Number:** ١٢١٠٠٣٧٣٦<br>**Prerequisite:** | **Assessment and Course Grade:**<br>• Mid Exam 30%<br>• Final Exam 40%<br>• Project & Seminars 30%, |
| **Instructors:** Dr. Ahmed Otoom<br>**Office NO**: IT 322<br>**Contact Info**: aotoom@hu.edu.jo, Phone #: 05 95144509 | |
| **Office Hours**:<br>Mon, Wed (10:00 AM - 11:00 AM) | |

## Course Description

Principles of managing people, process, tools, and measurements. Project management concepts, WBS, project management activities, Risk management, SPMP. Project organization categories, skills matrix, organization charts, estimation principles, COCOMO, project scheduling concepts, buffers, crashing, resource levelling and smoothing, PERT, project implementation and control, earned value, process and project metrics, research topics in project management.

## Textbook

- "Object-Oriented Software Engineering Using UML, Patterns and JAVA", Bernd BRUEGGE and Allen H. DUTOIT, 2010, 3rd edition, Pearson Educational International.
- "Object Oriented and Classical Software Engineering", Stephen R. Schach", 2007, 7th edition, McGraw Hill.
- "Introduction to Information Systems Project Management", David Olson, 2003, 2nd edition, McGraw Hill.

## Additional Reading

- "Software Project Management, A Real-World Guide to Success", Joel Henry, 2004, 1st edition, Addison Wesley.
- "Effective Software Project Management", Robert K. Wysocki, 2006, 1st edition, Wiley.
- "Information Technology Project Management", Kathy schwalbe, 2010, 6th edition, Course Technology.

## Course Objectives

- To review the main software project management blocks that includes people, process, tools and measurements and to give an overview about project vision and project development approaches.
- To provide deep analysis of project management concepts including WBS and task model. In addition, to give a deep study of project management activities from initiation to termination and Risk management.
- To give the students the full understanding of the SPMP and to develop one by their own.

- To familiarize students with advanced aspects related to project organization categories, skill matrix and organization charts.
- To provide a full study of existing scheduling and estimation techniques including COCOMO, project scheduling concepts, buffers, crashing, resource levelling and smoothing, PERT.
- To provide deep analysis of the concepts related to project implementation and control, earned value, process and project metrics
- To study recent advances in the software project management research including but not limited to: risk management, success and failure factors, outsourcing, Software metrics, relationship between planning and success, teams' management, earned value, estimation, scheduling, quality assurance, and knowledge management.

## Course Plan

| Week no. | Topic |
|---|---|
| **1** | Introduction |
| **2** | Project Management Concepts |
| **3** | Project Organization |
| **4** | Estimation Principles |
| **5** | Estimation Techniques |
| **6** | SPMP Presentation |
| **7** | SPMP Presentation |
| **8** | Mid Exam |
| **9** | Scheduling concepts, CPM, Buffers |
| **10** | Crashing, Resource management, PERT |
| **11** | Project Execution and control |
| **12** | Earned Value |
| **13** | Research paper presentations |
| **14** | Research paper presentations |
| **15** | Review |