INSO 5118 - Course Syllabus

1. **General Information:**

   Alpha-numeric codification: INSO 5118
   Course Title: Software Engineering Project Management
   Number of credits: 3
   Contact Period: 3 hours of lecture per week

2. **Course Description:**

   English: Discussion of techniques and tools for estimation, planning, monitoring, documentation, evaluation, refinement, and quality control of software. Development of skills for the effective administration of complex software engineering projects. Practice in project administration.

   Spanish: Discusión de técnicas y herramientas de estimación, planificación, verificación, documentación, evaluación, refinamiento y control de calidad de software. Desarrollo de destrezas para la administración efectiva de proyectos complejos de ingeniería de software. Práctica en la administración de proyectos.

3. **Pre/Co-requisites and other requirements:**

   Prerequisites: INSO 4101 or ICOM 4009

4. **Course Objectives:**

   Students will learn how to plan and manage a software development project, including practical experience with budget analysis, software requirements analysis, software design, implementation and testing.

5. **Instructional Strategies:**

   ☒conference ☐discussion ☒computation ☐laboratory

   ☐seminar with formal presentation ☐seminar without formal presentation ☐workshop

   ☐art workshop ☐practice ☐trip ☐thesis ☐special problems ☐tutoring

   ☐research ☐other, please specify:

6. **Minimum or Required Resources Available:**

   Students will use the Departmental computer laboratories to complete course projects.

7. **Course time frame and thematic outline**

Outline	Contact Hours

Introduction	1
Overview of software project planning	2
Software project evaluation	6
Development process models	3
Effort estimation	6
Project planning	8
Risk management	3
Resource allocation	3
Monitoring and control	5
Contract management	2
Personnel management	2
Software quality standards	2
Exams	2
Total hours: (equivalent to contact period)	45

8. **Grading System**

☒Quantifiable (letters) ☐ Not Quantifiable

9. **Evaluation Strategies**

	Quantity	Percent
☒ **Exams**	**2**	**40%**
☒ **Final Exam**	**1**	**25%**
☐ **Short Quizzes**		
☐Oral Reports		
☐ **Monographies**		
☐ **Portfolio**		
☒ **Projects**	**1**	**35%**
☐Journals		
☐Other, specify:		
TOTAL:		**100%**

10. Bibliography:

1. Murali K. Chemuturi, *Mastering Software Project Management: Best Practices, Tools and Techniques*, J. Ross Publishing, 2013.
2. Robert K. Wysocki, *Effective Project Management: Traditional, Agile, Extreme*, 6th ed., John Wiley, 2011.
3. Kenneth S. Rubin*, Essential Scrum: A Practical Guide to the Most Popular Agile Process*, Addison-Wesley, 2012.
4. Frederick P. Brooks Jr., *The Mythical Man-Month: Essays on Software Engineering*, 2nd ed., Addison-Wesley, 1995 [Classic Book]

11. Course Outcomes

Upon completion of this course the student will be able to:	Program Student Outcomes Impacted
1. Determine the most effective software development model to follow for a given software project and organization	2
2. Make accurate cost and time estimates for software projects	2
3. Supervise day-to-day management tasks associated with a software project to ensure timely delivery of software units and components	5
4. Select and use the most effective computer-based project management process and tool for a given software project	2

12. According to Law 51

Students will identify themselves with the Institution and the instructor of the course for purposes of assessment (exams) accommodations. For more information please call the Student with Disabilities Office which is part of the Dean of Students office (Office #4) at (787)265-3862 or (787)832-4040 extensions 3250 or 3258.

13. Academic Integrity

-The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR Students General Bylaws (Board of Trustees Certification 13, 2009-2010) states that academic dishonesty includes, but is not limited to: fraudulent actions; obtaining grades or academic degrees by false or fraudulent simulations; copying the whole or part of the academic work of another person; plagiarizing totally or partially the work of another person; copying all or part of another person answers to the questions of an oral or written exam by taking or getting someone else to take the exam on his/her behalf; as well as enabling and facilitating another person to perform the aforementioned behavior. Any of these behaviors will be subject to disciplinary action in accordance with the disciplinary procedure laid down in the UPR Students General Bylaws.—