ESCUELA SUPERIOR POLITÉCNICA DEL LITORAL
COURSE SYLLABUS
SOFTWARE ENGINEERING I

Program: Computer Science

1. Course number and name
SOFG1002 - SOFTWARE ENGINEERING I

2. Credits and contact hours
3 credits and 4 contact hours

3. Instructor's course or coordinator's name
CARLOS TEODORO MONSALVE ARTEAGA

4. Text book, tittle, author, and year
*Ian Sommerville. Software Engineering (10th Edition)

a.Other supplemental materials

*IEEE-CS/ACM. Código de ética de la Ingeniería de Software ()

5. Specific course information
   a.   Brief description of the content of the course (catalog description)

   This course addresses the importance of software engineering, the development life-cycle of a software product, and the application of a software development methodology with emphasis on planning, management, requirements analysis and design of a software system of medium complexity. In addition, technical and non-technical skills are developed or improved during the course. In the first group of skills we have: the application of methods and tools to plan a software system, the analysis of the needs of a real customer, and the design of a software system: both architectural and detailed design. The second group of skills includes teamwork; ethics in the software engineering profession; and oral and written communication.

   b.   Prerequisites

   WEB APPLICATIONS DEVELOPMENT - CCPG1010

      Co - Requisites

   HUMAN COMPUTER INTERACTION - CCPG1023

   c.   This course is a: Required

6. Specific goals for the course
   a.   Specific outcomes of instruction

   1.- To identify a software development process model that adds value to a specific project by analyzing the characteristics of existing models and the specificities of the project.

   2.- To organize the development of a software system through the creation of work teams considering roles and responsibilities.

   3.- To apply standards and best practices in requirements engineering for the generation of software requirements specifications for a system of medium complexity.

   4.- To create design models, based on software requireménts specifications, that represent the structure and behavior of a software system.

   b.   Explicity indicate which of the student outcomes listed in Criterion 3 or any other outcomes are

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addressed by the course

7. Brief list of topics to be covered

1.- Sofware processes

2.- Software projects management

3.- Tools and frameworks for software development

4.- Requirements engineering

5.- Software design

6.- Professional ethics