

Course Syllabus

SOFTWARE ENGINEERING II

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Program: Computer Science

1. Course number and name

SOFG1003 - SOFTWARE ENGINEERING II

2. Credits and contact hours

3 credits and 4 contact hours

3. Instructor's course or coordinator's name

MONICA KATIUSKA VILLAVICENCIO CABEZAS

4. Text book, title, author, and year

*Jorgensen, Paul A.. Software testing. A craftsman's approach (Fourth edition)

5. Specific course information

a. Brief description of the content of the course (catalog description)

The course allows students to develop a software system of medium complexity. To do so, students must develop technical and non-technical skills. The first group of skills refers to good programming practices and the development of test cases in order to guarantee the functionality and reliability of the system. The second group of skills includes teamwork, continuous learning (programming languages and / or tools required by the client), and oral and written communication.

b. Prerequisites

SOFTWARE ENGINEERING I - SOFG1002

c. This course is a: Required

6. Specific goals for the course

a. Specific outcomes of instruction

1.- Use a source code control tool to manage the development and versioning of a software system of moderate complexity (developed in a team of at least 3 people)

2.- Use a coding standard to improve the quality of the code in a given project.

3.- Develop a set of test cases for a medium-sized software project in order to properly implement the tests.

4.- Analyze the impact of a change request to an existing software product to determine its priority and feasibility.

b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course

(3) Communicate effectively in a variety of professional contexts.

(6) Apply computer science theory and software development fundamentals to produce computing-based solutions.

7. Brief list of topics to be covered

1.- Tools and Environments for software development.

2.- Software Construction.

3.- Software Verification and Validation.



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- 4.- Software Tests.
- 5.- Software Evolution.
- 6.- Software Reliability.

