Human Centered Computing

Academic Year: (2023 / 2024) **Review date: 29/01/2024 12:12:11**

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: AEDO CUEVAS, IGNACIO

Type: Compulsory ECTS Credits : 3.0

Year : 1 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

There are no special requirements beyond having an open mind to understand what human-centered informatics entails.

OBJECTIVES

The course is aimed at training students in the knowledge of different advanced systems development techniques with a people-centered paradigm. This course will show an overview of what is human-centered computing, human-computer interaction, usability engineering, interaction objectives (collaboration, fun,...), advanced interaction paradigms (ubiquitous computing, cross reality, web...), methods and techniques of requirements analysis, design and evaluation.
In addition, it is considered a primary objective to foster in students a critical and analytical spirit, which allows them to determine to have a vision of the research fields in the area of human-centered informatics.
Specifically, it is intended that students acquire knowledge that allows them
- Understand the scientific principles and bases of human-computer interaction.
- Understand and analyze the interaction problems that can arise in the development of people-centered systems.
- Know and use various methods and techniques for evaluating interactive systems.
- Analyze and design interaction mechanisms.
- Identify new fields of research in the field of ¿¿human-centered computing.

DESCRIPTION OF CONTENTS: PROGRAMME

- Human centered informatics
- Human-Computer Interaction
- Interaction paradigms
- Advanced interaction: tangible interaction, wearables, intelligent interfaces and cross-reality
- Interaction analysis and design
- Evaluation of interactive systems

LEARNING ACTIVITIES AND METHODOLOGY

- Lectures, during with the teachers will present the theoretic concepts. It is expected that students participate actively in the lectures.
- Presentation and discussion of articles and works related to the subject of the course.
- The student proposes a project according to the teachers guidance to go deeply into some aspect of the course, followed by public presentation.

ASSESSMENT SYSTEM

% end-of-term-examination/test:	0
% of continuous assessment (assigments, laboratory, practicals…):	100

The evaluation will take into account the quality, originality and completeness of the works carried out by the students during the course, as well as the quantity and quality of their contributiones during the lectures, discussions and work presentations. The same evaluation procedure will be aplied in both the

% end-of-term-examination/test:	0
% of continuous assessment (assigments, laboratory, practicals…):	100

ordinary and extraordinary evaluation modalities.

BASIC BIBLIOGRAPHY

- Ann Blandford et al Qualitative HCI Research: Going Behind the Scenes (Synthesis Lectures on Human-Centered Informatics), Springer, 2016

- Helen Sharp; Yvonne Rogers; Jenny Preece Interaction design : beyond human-computer interaction, Wiley, 2019

- Jonathan Lazar, Jinjuan Heidi Feng and Harry Hochheiser Research Methods in Human Computer Interaction, Elsevier, 2017

- Rosson and Carroll Usability Engineering: Scenario-Based Development of Human-Computer Interaction, Morgan Kaufmann, 2001