Technologies for disability

Academic Year: (2023 / 2024) **Review date: 09-06-2021**

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: MORENO LOPEZ, LOURDES

Type: Electives ECTS Credits : 3.0

Year : 4 Semester :

OBJECTIVES

1. Generic/Transversal Competences:
- Capacity to analyze and synthesize
- Capacity to organize and plan the work
- Capacity to manage resources in an efficient way.
- Capacity to put in practice theoretical concepts in different use cases.
- Oral and written skills
- Working as a team

2. Specific Competences.
a. Cognitive (to know).
- Knowledge in Design for all, accessibility and users affected by the digital divide in Information and Communication systems.
- Knowledge of legislation and national and international standards in relation to accessibility and design for all in information systems.

b. Procedural/instrumental (to be able to do).
- To be able to identify requirements about user needs concerning functional diversity and accessibility barriers in information systems.
- To be able to identify requirements about user needs in assistive technologies for design for all information technologies compatible with information systems.
- Ability to apply mandatory laws inaccessibility and Design for all issues in the software development process.
- Ability to use assistive technologies and developing and evaluate tools concerning accessibility.
- Ability to design and evaluating accessible information systems in web environments following standards.

c. Attitude (Being)

- Ability to work as a multidisciplinary team together with final users.
- Analyse, evaluate and conclude with the different accessible solutions for a given use case.
- Personal development in Design for all and accessibility matters.
- Capability of autonomous learning for the professional future in the area of design for all and accessibility.
- To keep in mind always accessibility and diversity of users and final devices in information systems.
- To have an interest in government e-inclusion policies as well as of different international organizations.

DESCRIPTION OF CONTENTS: PROGRAMME

* Introduction. Disability and ICT
* Assistive technology
* Accessibility standards
* Accessibility in HCI. User Interfaces
* Accessibility in Engineering

LEARNING ACTIVITIES AND METHODOLOGY

Theoretical and practical methodology with very active student participation in the teaching model, with the activities of various kinds, to improve the learning inside and outside the classroom as well as with/without teacher supervision:
- Theory Lectures with the objective of acquire the cognitive specific competences. (PO a h j)

- Practical lectures: Academic activities supervised by the teacher. They develop instrumental/procedural and attitudinal specific competences as well as most of the transversal ones. They are supervised lectures guided and monitored through individual tutoring or in small groups. Students will support the resolution of use cases in different scenarios of information systems by applying methodological approaches with the acquired knowledge. (PO b c e k)
- Exam with the aim of influencing the development of specific cognitive and procedural competences. (PO a e k)

ASSESSMENT SYSTEM

Homework and exams in addition to serving as a training activity to encourage and improve learning serve the dual purpose of being measured for the assessment system. The assessment system includes the evaluation of academic activities in accordance with the following weighting:

- Exam: 60%
- Supervised academic activities. Practical classes: 40%

% end-of-term-examination:	60
% of continuous assessment (assigments, laboratory, practicals…):	40