Communication Technologies in Healthcare

Academic Year: (2019 / 2020)   **Review date: 13/05/2020 10:13:10**

Department assigned to the subject: Signal and Communications Theory Department

Coordinating teacher: GARCIA ARMADA, ANA

Type: Electives ECTS Credits : 3.0

Year : 1 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

This subject does not have specific requirements.

OBJECTIVES

Basic competences

CB6 Having and understanding the knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
CB7 Students know how to apply their acquired knowledge and problem-solving skills in new or unfamiliar settings within broader (or multidisciplinary) contexts related to their field of study.
CB8 Students are able to integrate knowledge and to face the complexity of making judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
CB9 Students know how to communicate their conclusions and the knowledge and ultimate reasons behind them to specialised and non-specialised audiences in a clear and unambiguous way.
CB10 Students have the learning skills that will enable them to continue studying in a way that will be largely self-directed or autonomous.

General competences

CG2 Ability to apply the knowledge of skills and research methods related to engineering.
CG3 Ability to apply the knowledge of research skills and methods related to Life Sciences.
CG4 Ability to contribute to the widening of the frontiers of knowledge through an original research, part of which merits publication referenced at an international level.
CG5 Ability to perform a critical analysis and an evaluation and synthesis of new and complex ideas.
CG6 Ability to communicate with the academic and scientific community and with society in general about their fields of knowledge in the modes and languages commonly used in their international scientific community.

Specific competences

CE8 Ability to easily handle with the mathematical concepts and foundations necessary for the analysis, design and implementation of automatic learning algorithms for their operation under given specifications.
CE9 Ability in the handling of advanced automatic learning techniques for their application in the field of biomedicine.

DESCRIPTION OF CONTENTS: PROGRAMME

This subject presents the Communications Technologies that have application in Health, with the following program:

- Principles of communications.

- Communications for the IoT and its application in health.
- Technologies for the tactile Internet.
- New technologies and applications of Communications in Bioengineering

LEARNING ACTIVITIES AND METHODOLOGY

AF3	Theoretical practical classes
AF4	Laboratory practices
AF5	Tutorials
AF6	Team work
AF7	Student individual work
AF8	Partial and/or final exams

Activity code	total hours number	presencial hours number	% Student Presence
AF3	134	134	100%
AF4	42	42	100%
AF5	24	0	0%
AF6	120	0	0%
AF7	248	0	0%
AF8	16	16	100%
SUBJECT TOTAL	600	184	30,66%

ASSESSMENT SYSTEM

% end-of-term-examination/test: 0

% of continuous assessment (assigments, laboratory, practicals…):   100

SE1	Participation in class
SE2	Individual or team works made during the course
SE3	Partial exams

Evaluation systems	Minimum weighting (%)	Maximum weighting (%)
SE1	0	20
SE2	0	100
SE3	0	60

BASIC BIBLIOGRAPHY

- Annabel Z. Dodd The Essential Guide to Telecommunications, Prentice Hall, 2012