

COURSE DETAIL

INTRODUCTION TO MEDICAL INSTRUMENTATION DESIGN

Country

Spain

Host Institution

Carlos III University of Madrid

Program(s)

Carlos III University of Madrid

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Bioengineering

UCEAP Course Number

120

UCEAP Course Suffix

E

UCEAP Official Title

INTRODUCTION TO MEDICAL INSTRUMENTATION DESIGN

UCEAP Transcript Title

MED INSTRUMNT DESGN

UCEAP Quarter Units

5.00

UCEAP Semester Units

Course Description

This course offers an introduction to the design of medical instrumentation. Topics include: signal amplification; signal filtering; electrical safety; electrocardiology; electroencephalography; other biopotential recordings-- EMG, ENG, ERG, EOG; biopotential amplifiers; electrodes and electrolytes; sensors-- biophysics, design, applications; introduction to signal digitalization; therapeutic and prosthetic devices; pressure and sound measurements; flow and volume measurements; introduction to optical measurement systems.

Prerequisites: Introduction to Bioengineering, Electronic Technology in Biomedicine, Measuring Instrumentation, Signals and Systems, or Digital Signal Processing.

Language(s) of Instruction

English

Host Institution Course Number

15554

Host Institution Course Title

INTRODUCCIÓN AL DISEÑO DE INSTRUMENTACIÓN MÉDICA

Host Institution Course Details

<https://aplicaciones.uc3m.es/cpa/generaFicha?est=257&anio=2021&plan=419&asig=15...>

Host Institution Campus

Leganés

Host Institution Faculty

Escuela Politécnica Superior

Host Institution Degree

Grado en Ingeniería Biomédica

Host Institution Department

Departamento de Bioingeniería e Ingeniería Aeroespacial

Course Last Reviewed

2021-2022

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