

## URV Engineering School (ETSE) – Course 2021-22 –

### Subjects offered in English (Bachelor Degrees)

General information for incoming mobility students is available [here](#).

The tables in this document show, from left to right, the name of the course (with a link to a web page with more detailed information about the content and evaluation of the course), the semester in which it is offered (*Fall*- September to January, *Spring*-February to June), the number of ECTS and the code of the course.

#### **Electronic and Automation Engineering-GEEliA**

<a href="#">TECHNICAL ENGLISH</a>	Spring	6	17204102
<a href="#">ENGINEERING HISTORY</a>	Fall	6	17204207
<a href="#">EMBEDDED SYSTEMS</a>	Fall	3	17204206

#### **Electrical Engineering-GEE**

<a href="#">TECHNICAL ENGLISH</a>	Spring	6	17214102
<a href="#">ENGINEERING HISTORY</a>	Fall	6	17214216

#### **Computer Engineering – GEI**

<a href="#">TECHNICAL ENGLISH</a>	Spring	6	17234102
<a href="#">ENGINEERING HISTORY</a>	Fall	6	17234207
<a href="#">MOBILE AND EMBEDDED APPLICATIONS</a>	Fall	6	17234125

#### **Techniques for Developing Web and Mobile Applications – GTDAWIM**

No courses offered in English.

**Biomedical Engineering-GEB**

<a href="#">OMICS TECHNOLOGY AND DATA HANDLING</a>	Fall	4.5	17254112
<a href="#">BIOMEDICAL IMAGE PROCESSING</a>	Spring	4.5	17254119
<a href="#">COMPUTATIONAL BIOLOGY AND ANALYSIS OF BIOMEDICAL DATA</a>	Spring	4.5	17254115
<a href="#">BIOMATERIALS ENGINEERING AND TISSUE REGENERATION I</a>	Spring	3	17254116
<a href="#">BIOMECHANICS II</a>	Fall	4.5	17254123
<a href="#">MANAGEMENT OF HEALTH INFRASTRUCTURES</a>	Fall	6	17254124
<a href="#">INNOVATION AND ENTREPRENEURSHIP</a>	Spring	4.5	17254128
<a href="#">COMPUTATIONAL AND EXPERIMENTAL BIOMECHANICS</a>	Spring	3	17254220
<a href="#">SMART HEALTH</a>	Spring	3	17254209
<a href="#">NANOTECHNOLOGIES APPLIED TO BIOMEDICINE</a>	Spring	3	17254208

**Telecommunication Systems and Services Engineering-GESST**

<a href="#">TECHNICAL ENGLISH</a>	Spring	6	17244102
<a href="#">INNOVATION AND ENTREPRENEURSHIP</a>	Spring	6	17244131
<a href="#">EMBEDDED SYSTEMS</a>	Spring	3	17244212
<a href="#">HISTORY OF ENGINEERING</a>	Fall	6	17244209

**Courses common to all bachelor degrees**

BACHELOR'S THESIS (12 ECTS)

## URV Engineering School (ETSE) – Course 2020-21

**Subjects offered in Catalan/Spanish in which the lecturers provide personalized tutoring services in English (course material, personalized learning support, exercises, exams, etc.)**

Note: ERASMUS students are advised to check the availability of the English tutoring service in the subjects in which they are interested before starting the mobility process, by sending a message to the [mobility coordinator](#) of the degree.

**Electronic and Automation Engineering-GEEliA**

<a href="#"><u>CHEMICAL FUNDAMENTALS OF ENGINEERING</u></a>	Fall	6	17204010
<a href="#"><u>CIRCUIT THEORY I / CIRCUIT THEORY II</u></a>	Fall / Spring	6 / 5	17204105 / 17204106
<a href="#"><u>STATISTICS AND TRANSFORMED METHODS</u></a>	Fall	6	17204009
<a href="#"><u>THERMODYNAMICS AND HYDRAULICS</u></a>	Fall	6	17204117
<a href="#"><u>FUNDAMENTALS OF ELECTRICAL INSTALLATIONS</u></a>	Spring	5	17204116
<a href="#"><u>FUNDAMENTALS OF ELECTRICAL MACHINES</u></a>	Spring	5	17204115
<a href="#"><u>FUNDAMENTALS OF ELECTRONICS</u></a>	Spring	5	17204107
<a href="#"><u>MACHINES AND MECHANISMS</u></a>	Spring	5	17204121
<a href="#"><u>SCIENCE AND RESISTANCE OF MATERIALS</u></a>	Spring	5	17204122
<a href="#"><u>ANALOGUE ELECTRONICS</u></a>	Fall	6	17204109
<a href="#"><u>DIGITAL ELECTRONICS</u></a>	Fall	6	17204108
<a href="#"><u>INDUSTRIAL COMPUTER SCIENCE I /INDUSTRIAL COMPUTER SCIENCE II</u></a>	Fall / Fall	6 / 6	17204119 / 17204120
<a href="#"><u>POWER ELECTRONICS</u></a>	Fall	6	17204110
<a href="#"><u>AUTOMATIC CONTROL</u></a>	Spring	6	17204123
<a href="#"><u>ELECTRONIC EQUIPMENT</u></a>	Spring	6	17204112
<a href="#"><u>INSTRUMENTATION</u></a>	Spring	6	17204113
<a href="#"><u>MICROCONTROLLERS</u></a>	Spring	6	17204111
<a href="#"><u>AUTOMATION</u></a>	Fall	6	17204103
<a href="#"><u>ELECTRONIC POWER SYSTEMS</u></a>	Fall	6	17204114
<a href="#"><u>SYSTEMS MODELLING AND PROCESS CONTROL</u></a>	Fall	6	17204124
<a href="#"><u>FINAL PROJECT</u></a>	Spring	3	17204126
<a href="#"><u>INDUSTRIAL ORGANISATION</u></a>	Spring	6	17204118
<a href="#"><u>ROBOTIZED SYSTEMS</u></a>	Spring	6	17204104
<a href="#"><u>AUDITING OCCUPATIONAL RISK PREVENTION</u></a>	Fall	3	17204214
<a href="#"><u>CONTROL OF ELECTRICAL MACHINES</u></a>	Fall	6	17204231
<a href="#"><u>OPTOELECTRONIC MECHANISMS AND SYSTEMS</u></a>	Fall	3	17204258
<a href="#"><u>AUTOMATION PERIPHERALS</u></a>	Spring	3	17204260
<a href="#"><u>INTRODUCTION TO MOBILE ROBOTS</u></a>	Spring	3	17204210
<a href="#"><u>MANAGING THE POWER OF ELECTRIC VEHICLES</u></a>	Spring	3	17204208
<a href="#"><u>PROJECT MANAGEMENT</u></a>	Spring	3	17204212
<a href="#"><u>RENEWABLE ENERGIES</u></a>	Spring	6	17204223

**Electrical Engineering-GEE**

<a href="#"><u>CHEMICAL FUNDAMENTALS OF ENGINEERING</u></a>	Fall	6	17214010
<a href="#"><u>CIRCUIT THEORY I / CIRCUIT THEORY II</u></a>	Fall / Spring	6 / 5	17214105 / 17214106
<a href="#"><u>STATISTICS AND TRANSFORMED METHODS</u></a>	Fall	6	17214009
<a href="#"><u>THERMODYNAMICS AND HYDRAULICS</u></a>	Fall	6	17214117
<a href="#"><u>FUNDAMENTALS OF ELECTRICAL MACHINES</u></a>	Spring	5	17214115
<a href="#"><u>FUNDAMENTALS OF ELECTRONICS</u></a>	Spring	5	17214107
<a href="#"><u>SCIENCE AND RESISTANCE OF MATERIALS</u></a>	Spring	5	17214122
<a href="#"><u>ELECTRICAL MACHINES</u></a>	Fall	6	17214120
<a href="#"><u>POWER ELECTRONICS</u></a>	Fall	6	17214110
<a href="#"><u>DESIGN OF ELECTRICAL MACHINES</u></a>	Spring	6	17214123
<a href="#"><u>FUNDAMENTALS OF AUTOMATIC CONTROL</u></a>	Spring	6	17214104
<a href="#"><u>RENEWABLE ENERGIES</u></a>	Spring	6	17214109
<a href="#"><u>AUTOMATION</u></a>	Fall	6	17214103
<a href="#"><u>CONTROL OF ELECTRICAL MACHINES</u></a>	Fall	6	17214124
<a href="#"><u>LIGHTING ENGINEERING</u></a>	Fall	3	17214113
<a href="#"><u>ENVIRONMENTAL TECHNOLOGIES</u></a>	Spring	3	17214112
<a href="#"><u>INDUSTRIAL ORGANISATION</u></a>	Spring	6	17214118
<a href="#"><u>POWER STATIONS</u></a>	Fall	6	17214108

**Computer Engineering – GEI**

<u>PROGRAMMING</u>	Fall	6	17234114
<u>DISCRETE MATHEMATICS II</u>	Spring	6	17234010
<u>COMPUTER STRUCTURE</u>	Spring	6	17234108
<u>ANALYSIS AND DESIGN OF APPLICATIONS</u>	Spring	6	17234105
<u>COMPUTER ARCHITECTURE</u>	Fall	6	17234109
<u>FORMAL LANGUAGES</u>	Spring	6	17234110
<u>ARTIFICIAL INTELLIGENCE</u>	Fall	6	17234128
<u>COMPILERS</u>	Fall	6	17234127
<u>REAL-TIME SYSTEMS</u>	Fall	6	17234124
<u>COMPUTERIZED VISION</u>	Spring	6	17234130
<u>ELECTRONIC COMMERCE SYSTEMS</u>	Spring	6	17234121
<u>INFORMATION SYSTEMS IN ORGANIZATIONS</u>	Spring	6	17234122
<u>NETWORK SECURITY</u>	Spring	6	17234120
<u>DATA NETWORKS</u>	Fall	6	17234118

**Techniques for Developing Web and Mobile Applications – GTDAWIM**

<u>PROGRAMMING</u>	Fall	6	17264114
<u>ANALYSIS AND DESIGN OF APPLICATIONS</u>	Spring	6	17264105
<u>NETWORK APPLICATION ARCHITECTURES</u>	Fall	6	17264122
<u>WEBSITE ENGINEERING</u>	Fall	6	17264125
<u>MOBILE APPLICATIONS AND SERVICES</u>	Spring	6	17264106
<u>NETWORK SECURITY</u>	Spring	6	17264123
<u>DATA NETWORKS</u>	Fall	6	17264118
<u>ADVANCED PROGRAMMING OF MOBILE DEVICES</u>	Fall	6	17264138
<u>ADVANCED DEVELOPMENT OF WEB APPLICATIONS</u>	Fall	6	17264121

**Biomedical Engineering-GEB**

<a href="#"><u>PROGRAMMING</u></a>	Fall	6	17254013
<a href="#"><u>FUNDAMENTALS OF COMMUNICATION I / FUNDAMENTALS OF COMMUNICATION II</u></a>	Fall / Spring	6 / 6	17254015 / 17254106
<a href="#"><u>ANALYSIS OF LINEAR CIRCUITS AND SYSTEMS</u></a>	Fall	6	17254014
<a href="#"><u>DATA ANALYSIS AND BIOSTATISTICS</u></a>	Fall	6	17254105
<a href="#"><u>BIOFLUID MECHANICS</u></a>	Fall	6	17254010
<a href="#"><u>PHYSIOLOGY</u></a>	Spring	7.5	17254107
<a href="#"><u>ANALOGUE ELECTRONICS</u></a>	Spring	4.5	17254109
<a href="#"><u>BIOCHEMISTRY</u></a>	Spring	6	17254011
<a href="#"><u>BIOPHYSICS</u></a>	Spring	6	17254012
<a href="#"><u>DIGITAL ELECTRONICS</u></a>	Fall	6	17254108
<a href="#"><u>DIGITAL TREATMENT OF BIOSIGNALS</u></a>	Fall	6	17254113
<a href="#"><u>DATA NETWORKS AND INTERNET</u></a>	Fall	6	17254114
<a href="#"><u>PHYSIOPATHOLOGY</u></a>	Fall	4.5	17254111
<a href="#"><u>ADVANCED MEDICAL PHYSICS</u></a>	Fall	3	17254110
<a href="#"><u>SENSORS AND INSTRUMENTS FOR BIOMEDICINE</u></a>	Spring	4.5	17254120
<a href="#"><u>BIOMECHANICS I</u></a>	Spring	3	17254117
<a href="#"><u>TECHNOLOGIES FOR SENSOR NETWORKS, THE IOT AND SMART CITIES</u></a>	Spring	4.5	17254121
<a href="#"><u>BIG DATA INFRASTRUCTURES</u></a>	Spring	6	17254118
<a href="#"><u>BIOMATERIALS ENGINEERING AND TISSUE REGENERATION II</u></a>	Fall	3	17254122
<a href="#"><u>SENSORS AND MOBILE TECHNOLOGIES LABORATORY FOR BIOENGINEERING</u></a>	Fall	3	17254125
<a href="#"><u>MEDICAL ROBOTICS</u></a>	Fall	4.5	17254126
<a href="#"><u>TELEMEDICINE</u></a>	Spring	4.5	17254129
<a href="#"><u>EQUIPMENT FOR MONITORING, DIAGNOSIS AND THERAPY</u></a>	Spring	3	17254127

## Telecommunication Systems and Services Engineering-GESST

<a href="#"><u>PROGRAMMING</u></a>	Fall	6	17244010
<a href="#"><u>ANALYSIS OF CIRCUITS AND LINEAR SYSTEMS</u></a>	Fall	6	17244009
<a href="#"><u>FUNDAMENTALS OF COMMUNICATION I / FUNDAMENTALS OF COMMUNICATION II</u></a>	Fall / Spring	6 / 6	17244103 / 17244108
<a href="#"><u>DIGITAL ELECTRONICS</u></a>	Fall	6	17244105
<a href="#"><u>DATA NETWORKS AND THE INTERNET</u></a>	Fall	6	17244104
<a href="#"><u>INFRASTRUCTURES FOR BIG DATA</u></a>	Spring	6	17244106
<a href="#"><u>ANALOGUE ELECTRONICS</u></a>	Spring	5	17244107
<a href="#"><u>WAVE TRANSMISSION AND PROPAGATION</u></a>	Spring	5	17244110
<a href="#"><u>RADIO-FREQUENCY ENGINEERING</u></a>	Spring	5	17244111
<a href="#"><u>TELECOMMUNICATIONS LABORATORY</u></a>	Spring	3	17244109
<a href="#"><u>DIGITAL SIGNAL PROCESSING</u></a>	Fall	6	17244113
<a href="#"><u>DIGITAL COMMUNICATIONS</u></a>	Fall	6	17244112
<a href="#"><u>EMITTERS AND RECEIVERS</u></a>	Fall	6	17244116
<a href="#"><u>ANTENNAS AND RADIOPROPAGATION</u></a>	Fall	6	17244119
<a href="#"><u>MICROCONTROLLERS AND EMBEDDED SYSTEMS</u></a>	Fall	6	17244117
<a href="#"><u>TECHNOLOGIES FOR SENSOR NETWORKS, THE INTERNET OF THINGS AND SMART CITIES</u></a>	Spring	4.5	17244121
<a href="#"><u>TELEPHONY AND MOBILE COMMUNICATIONS</u></a>	Spring	6	17244120
<a href="#"><u>SENSORS AND INSTRUMENTATION</u></a>	Spring	4.5	17244118
<a href="#"><u>TELECOMMUNICATION PROJECTS</u></a>	Fall	6	17244128
<a href="#"><u>BROADBAND AND OPTICAL COMMUNICATIONS</u></a>	Fall	6	17244134
<a href="#"><u>MOBILE SENSORS AND TECHNOLOGIES LABORATORY</u></a>	Fall	3	17244132
<a href="#"><u>INDUSTRIAL TELECOMMUNICATIONS AND ELECTROMAGNETIC COMPATIBILITY</u></a>	Spring	3	17244135
<a href="#"><u>TELEMEDICINE</u></a>	Spring	3	17244219
<a href="#"><u>NETWORK MANAGEMENT</u></a>	Spring	6	17244136
<a href="#"><u>MOBILE APPLICATIONS AND SERVICES LABORATORY</u></a>	Fall	3	17244228
<a href="#"><u>ADVANCED PROGRAMMING OF MOBILE DEVICES</u></a>	Fall	6	17244138
<a href="#"><u>ENERGY MANAGEMENT IN TELECOMMUNICATION SYSTEMS</u></a>	Fall	3	17244129
<a href="#"><u>NETWORK DESIGN / NETWORK SECURITY</u></a>	Fall / Spring	6 / 6	17244130 / 17244123
<a href="#"><u>DISTRIBUTED TELEMATIC SYSTEMS</u></a>	Spring	6	17244223
<a href="#"><u>NETWORK APPLICATION ARCHITECTURES</u></a>	Fall	6	17244213
<a href="#"><u>NETWORK MODELLING</u></a>	Fall	6	17244124
<a href="#"><u>WEBSITE ENGINEERING</u></a>	Fall	6	17244125
<a href="#"><u>MOBILE APPLICATIONS AND SERVICES</u></a>	Spring	6	17244115
<a href="#"><u>MULTIMEDIA SERVICES</u></a>	Spring	6	17244114