URV Engineering School (ETSE) – Course 2023-24 –

Subjects taught 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, the semester in which it is taught (*Fall*- September to January, *Spring*-February to June), the number of ECTS and the code of the course. Each study has a link to a web page with extensive information about it, including the Program of Studies and the Teaching Guide, which contains detailed information about each course.

Mathematical and Physics Engineering – GEMiF

COMBINATORICS AND PROBABILITY	Fall	6	17274102
CLASSICAL MECHANICS	Fall	6	17274106
THERMODYNAMICS	Spring	6	17274112
QUANTUM PHYSICS	Spring	6	17274108
NUMERICAL METHODS	Spring	6	17274109
STATISTICAL MECHANICS	Fall	6	17274116
BIOPHYSICS	Fall	6	17274113
PHYSICAL ELECTRONICS	Spring	6	17274117
ALGEBRAIC STRUCTURES	Spring	6	17274118

Electronic and Automation Engineering-GEEIiA

TECHNICAL ENGLISH	Spring	6	17204102
EMBEDDED SYSTEMS	Spring	3	17204206

Electrical Engineering-GEE

TECHNICAL ENGLISH	Spring	6	17214102

Computer Engineering – GEI

TECHNICAL ENGLISH	Spring	6	17234102
MOBILE AND EMBEDDED APPLICATIONS	Fall	6	17234125

Techniques for Developing Web and Mobile Applications – GTDAWIM

No courses taught in English.

Biomedical Engineering-GEB

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

Telecommunication Systems and Services Engineering-GESST

TECHNICAL ENGLISH	Spring	6	17244102
INNOVATION AND ENTREPRENEURSHIP	Spring	6	17244131
EMBEDDED SYSTEMS	Spring	3	17244212

Courses common to all bachelor degrees

BACHELOR'S THESIS (12 ECTS)

URV Engineering School (ETSE) – Course 2023-24

Subjects taught 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.

Mathematical and Physics Engineering-GEMiF

LINEAR ALGEBRA	**Fall**	**7.5**	**17274001**
MATHEMATICAL ANALYSIS I	**Fall**	**7.5**	**17274002**
PHYSICS I	**Fall**	**9**	**17274003**
SCIENTIFIC PROGRAMMING	**Fall**	**6**	**17274004**
MATHEMATICAL ANALYSIS II	**Spring**	**7.5**	**17274005**
DIFFERENTIAL EQUATIONS I	**Spring**	**6**	**17274006**
PHYSICS II	**Spring**	**9**	**17274007**
GEOMETRY	**Spring**	**7.5**	**17274008**
ELECTROMAGNETISM	**Fall**	**6**	**17274104**
ALGEBRAIC COMPUTATION	**Fall**	**6**	**17274103**
DIFFERENTIAL EQUATIONS II	**Spring**	**6**	**17274105**
STATISTICS	**Spring**	**6**	**17274107**
GRAPH THEORY	**Spring**	**6**	**17274111**
COMPLEX ANALYSIS	**Fall**	**6**	**17274101**
PHYSICS OF FLUIDS	**Fall**	**6**	**17274114**
PHYSICS OF THE SOLID STATE AND SURFACES	**Fall**	**6**	**17274115**
DYNAMICAL SYSTEMS	**Spring**	**6**	**17274110**
DIFFERENTIAL GEOMETRY AND APPLICATIONS	**Spring**	**6**	**17274119**

GEMiF also includes, as optional courses, some subjects from other studies such as GEI or GEEIiA. Please check with the GEMIF mobility coordinator the availability of these optional courses.

Electronic and Automation Engineering-GEEIiA

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

Electrical Engineering-GEE

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

Computer Engineering – GEI

PROGRAMMING	Fall	6	17234114
DISCRETE MATHEMATICS II	Spring	6	17234010
COMPUTER STRUCTURE	Spring	6	17234108
ANALYSIS AND DESIGN OF APPLICATIONS	Spring	6	17234105
COMPUTER ARCHITECTURE	Fall	6	17234109
FORMAL LANGUAGES	Spring	6	17234110
ARTIFICIAL INTELLIGENCE	Fall	6	17234128
COMPILERS	Fall	6	17234127
REAL-TIME SYSTEMS	Fall	6	17234124
COMPUTERIZED VISION	Spring	6	17234130
ELECTRONIC COMMERCE SYSTEMS	Spring	6	17234121
INFORMATION SYSTEMS IN ORGANIZATIONS	Spring	6	17234122
NETWORK SECURITY	Spring	6	17234120
DATA NETWORKS	Fall	6	17234118
STATISTICS	Fall	6	17234011
DISTRIBUTED SYSTEMS	Spring	6	17234106
ADVANCED PROGRAMMING TECHNIQUES	Fall	6	17234117
MOBILE APPLICATIONS AND SERVICES	Spring	6	17234267
ADVANCED PROGRAMMING OF MOBILE DEVICES	Fall	6	17234268

Techniques for Developing Web and Mobile Applications – GTDAWIM

ADVANCED PROGRAMMING TECHNIQUES	Fall	6	17264117
ADVANCED PROGRAMMING OF MOBILE DEVICES	Fall	6	17264138
ADVANCED DEVELOPMENT OF WEB APPLICATIONS	Fall	6	17264121

Biomedical Engineering-GEB

PROGRAMMING	Fall	6	17254013
FUNDAMENTALS OF COMMUNICATION I / FUNDAMENTALS OF COMMUNICATION II	Fall / Spring	6 / 6	17254015 / 17254106
ANALYSIS OF LINEAR CIRCUITS AND SYSTEMS	Fall	6	17254014
DATA ANALYSIS AND BIOSTATISTICS	Fall	6	17254105
BIOFLUID MECHANICS	Fall	6	17254010
PHYSIOLOGY	Spring	7.5	17254107
ANALOGUE ELECTRONICS	Spring	4.5	17254109
BIOCHEMISTRY	Spring	6	17254011
BIOPHYSICS	Spring	6	17254012
DIGITAL ELECTRONICS	Fall	6	17254108
DIGITAL TREATMENT OF BIOSIGNALS	Fall	6	17254113
DATA NETWORKS AND INTERNET	Fall	6	17254114
PHYSIOPATHOLOGY	Fall	4.5	17254111
ADVANCED MEDICAL PHYSICS	Fall	3	17254110
SENSORS AND INSTRUMENTS FOR BIOMEDICINE	Spring	4.5	17254120
BIOMECHANICS I	Spring	3	17254117
TECHNOLOGIES FOR SENSOR NETWORKS, THE IOT AND SMART CITIES	Spring	4.5	17254121
BIG DATA INFRASTRUCTURES	Spring	6	17254118
BIOMATERIALS ENGINEERING AND TISSUE REGENERATION II	Fall	3	17254122
SENSORS AND MOBILE TECHNOLOGIES LABORATORY FOR BIOENGINEERING	Fall	3	17254125
MEDICAL ROBOTICS	Fall	4.5	17254126
TELEMEDICINE	Spring	4.5	17254129
EQUIPMENT FOR MONITORING, DIAGNOSIS AND THERAPY	Spring	3	17254127
SMART HEALTH	Spring	3	17254209

Telecommunication Systems and Services Engineering-GESST

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