

## COURSES OF ENGINEERING

(2021-02-22)

**First Semester / Fall Semester (September-January)**

Code	Subject	ECTS	Bachelor's Degree or Master	Year
25110	<a href="#">Statistics</a>	6	BSc in Industrial Technology Engineering	2
25971	<a href="#">Calculus (Industrial Eng.)</a>	6	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
25972	<a href="#">Algebra</a>	6	BSc in Telecommunications Engineering	1
25991	Automatic Regulation	6	BSc in Industrial Electronics and Automatics Engineering	3
26571	<a href="#">Chemistry</a>	6	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
26592	<a href="#">Electrical Technology</a>	6	BSc in Industrial Technology Engineering	4
26609	Thermal Engineering	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	2
26611	<a href="#">Environmental Technologies</a>	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	4
27303	<a href="#">Linear Algebra I</a>	4,5	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
27306	<a href="#">Graphics in Engineering</a>	6	BSc in Industrial Technology Engineering	1

27308	<a href="#">Fundamentals of Materials Science</a>	6	BSc in Industrial Technology Engineering	2
27309	<a href="#">Extended Mathematics</a>	6	BSc in Industrial Technology Engineering	2
27311	<a href="#">Fluid Mechanics</a>	6	BSc in Industrial Technology Engineering	2
27316	<a href="#">Analysis &amp; Operation of Electrical Machinery I</a>	4,5	BSc in Industrial Technology Engineering	3
27319	<a href="#">Thermotechnics</a>	6	BSc in Industrial Technology Engineering	3
27320	<a href="#">General Electronics</a>	6	BSc in Industrial Technology Engineering	3
27342	<a href="#">Extended Mathematics</a>	7,5	BSc in Telecommunications Engineering	2
27353	<a href="#">Basic Electronics</a>	6	BSc in Telecommunications Engineering	1
27387	<a href="#">Digital Systems</a>	6	BSc in Telecommunications Engineering	3
27448	<a href="#">English I (only Marine and Nautical topics)</a>	6	BSc in Nautical Studies and Maritime Transport BSc in Marine Studies	1
27678	<a href="#">Industrial Electronics</a>	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	2
27681	<a href="#">Materials Science</a>	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	2
27697	<a href="#">Discrete Mathematics</a>	6	BSc in Computer Engineering in Management and Information Systems	1
27722	<a href="#">Materials Elasticity and Endurance</a>	6	BSc in Mechanical Engineering	3
503333	<a href="#">Scientific Writing and Presentation</a>	4,5	Master in Advanced Materials Engineering	1
503705	<a href="#">Sustainability Criteria and Life Cycle Analysis</a>	3	Master in Research in Energy Efficiency and Sustainability Erasmus Mundus Master in Smart Cities and Communities (SMACCs)	1
503706	<a href="#">Heat and Humidity Transfer</a>	3	Master in Research in Energy Efficiency and Sustainability Erasmus Mundus Master in Smart Cities and Communities (SMACCs)	1

503709	<a href="#">Energy Technologies for Buildings</a>	3	Master in Research in Energy Efficiency and Sustainability Erasmus Mundus Master in Smart Cities and Communities (SMACCs)	1
503907	<a href="#">Chemical Process Design</a>	3	Master In Industrial Engineering	1
504119	<a href="#">English for the Maritime Business</a>	6	Master in Nautical Studies and Maritime Transport	1
504899	<a href="#">Sustainability</a>	3	Master in Project Management	2
504908	<a href="#">Research in Project Management</a>	3	Master in Project Management	2
504909	<a href="#">Design and Development of New Products</a>	3	Master in Project Management	2
504910	<a href="#">EFQM Excellence Model</a>	3	Master in Project Management	2
504911	<a href="#">Ecodesign and Circular Economy</a>	3	Master in Project Management	2
504912	<a href="#">Product Life Cycle Management</a>	3	Master in Project Management	2
504913	<a href="#">Tools for problem solving in research projects</a>	3	Master in Project Management	2
504914	<a href="#">Technologies for Project Management</a>	3	Master in Project Management	2

## COURSES OF ENGINEERING

### Second Semester / Spring Semester (January-June)

Code	Subject	ECTS	Bachelor's Degree or Master	Year
25998	<a href="#">Robotics</a>	6	BSc in Industrial Electronics and Automatics Engineering	3
26518	<a href="#">English for Industrial Engineering</a>	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	4
26570	<a href="#">Computer Science</a>	6	BSc in Industrial Technology Engineering	1
26677	<a href="#">Advanced Numerical Methods</a>	6	BSc in Industrial Technology Engineering	3
27303	<a href="#">Linear Algebra II</a>	4,5	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
27304	<a href="#">Extended Physics</a>	6	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
27307	<a href="#">Extended Engineering Graphics</a>	6	BSc in Industrial Technology Engineering	1
27310	<a href="#">Electrical Technology</a>	6	BSc in Industrial Technology Engineering	2
27312	<a href="#">Thermodynamics</a>	6	BSc in Industrial Technology Engineering	2
27313	<a href="#">Extension of Differential Equations</a>	6	BSc in Industrial Technology Engineering	2
27316	<a href="#">Analysis &amp; Operation of Electrical Machinery II</a>	4,5	BSc in Industrial Technology Engineering	3
27321	<a href="#">Chemical Technology</a>	6	BSc in Industrial Technology Engineering	3
27324	<a href="#">Environmental Science &amp; Technology</a>	6	BSc in Industrial Technology Engineering	4
27346	<a href="#">Calculus II</a>	6	BSc in Telecommunications Engineering	1

27354	<a href="#">Electronic Devices &amp; Circuits</a>	6	BSc in Telecommunications Engineering	1
27359	<a href="#">Telecommunication Services &amp; Network Architecture (only practice classes)</a> <i>(previous knowledge about IP networks is required)</i>	3,5	BSc in Telecommunications Engineering	2
27382	<a href="#">Treatment of Signals</a>	6	BSc in Telecommunications Engineering	1
27452	<a href="#">English II (Marine and Nautical topics)</a>	6	BSc in Nautical Studies and Maritime Transport BSc in Marine Studies	1
27674	<a href="#">Fluid Mechanics</a>	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	2
27718	<a href="#">English for Information Technology</a>	6	BSc in Computer Engineering in Management and Informations Systems	4
27725	<a href="#">Hydraulic Facilities and Machinery</a>	6	BSc in Mechanical Engineering	3
502149	<a href="#">Electric Energy Converters Applied to Distributed Generation</a>	3	Master's in Integration of Renewable Energies in the Electric System	1
502150	<a href="#">Impact of Distributed Generation on the Electric Power System</a>	3	Master's in Integration of Renewable Energies in the Electric System	1
502153	<a href="#">Electrical Grid Operation. Transportation and Distribution</a>	3	Master's in Integration of Renewable Energies in the Electric System	1
503700	<a href="#">Exergy Analysis and Thermoconomics. Application to Energy Conversion Systems</a>	3	Master in Research in Energy Efficiency and Sustainability Erasmus Mundus Master in Smart Cities and Communities (SMACCs)	1
503910	<a href="#">Fluid Machinery and Installations</a>	4,5	Master In Industrial Engineering	1

## COURSES OF ENGINEERING

Full academic year (from September to June)

Code	Subject	ECTS	Bachelor's Degree or Master	Year
25971	<a href="#">Calculus</a>	12	BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	1
27359	<a href="#">Telecommunication Services and Network Architecture</a>	9	Grado en Ingeniería en Tecnología de Telecomunicación <i>BSc in Telecommunications Engineering</i>	2
27414	<a href="#">Physics I</a>	9	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
27673	<a href="#">Fundamentals of Physics in Engineering</a>	12	BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	1
27675	<a href="#">Chemical Fundamentals of Engineering</a>	9	BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	1
27677	<a href="#">Engineering Graphics</a>	9	BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	1

## Project Works / Master Thesis

Original exercise performed individually, consisting of a work in the field of the specific technologies of the Degree. This work will result in a written document or report. The student should take into account the specific indications of the supervisor in its writing and presentation.

Code	Subject	ECTS	Bachelor's Degree or Master	Year
27340	Project Work in Industrial Topics	6	BSc in Industrial Technology Engineering	4
27391	Project Work in Telecommunication Topics	12	BSc in Telecommunications Engineering	4
27413	Project Work in Management Topics	6	BSc in Industrial Organization Engineering	4
27482	Project Work in Nautical topics	12	BSc in Nautical Studies and Maritime Transport	4
27505	Project Work in Marine topics	12	BSc in Marine Studies	4
27692	Project Work in Electronics and Automatics	12	BSc in Industrial Electronics and Automatics	4
27719	Project Work in Information Systems	12	BSc in Computer Engineering in Management and Information Systems	4
27730	Project Work in Mechanics	12	BSc in Mechanical Engineering	4
27735	Project Work in Electrical Topics	12	BSc in Electrical Engineering	4
27780	Project Work in Mining Technology and Energy	12	BSc in Mining and Energy Engineering	4
27797	Project Work in Civil Engineering	12	BSc in Civil Engineering	4
27848	Project Work in Environmental Topics	6	BSc in Environmental Engineering	4
504003	Master Thesis in Industrial Topics	24	Master In Industrial Engineering	2
504066	Master Thesis in Telecommunication Topics	24	Master in Telecommunications Engineering	2
504122	Master Thesis in Nautical Topics	6	Master in Nautical Studies and Maritime Transport	1
504177	Master Thesis in Marine Topics	6	Master in Marine Studies	1

## USAC (Universities Studies Abroad Consortium) Courses

Incoming students can also take USAC courses that have the restriction of two or three courses per Semester. The courses are held in the Faculty of Economics and Business, Elcano section.

USAC has very strict rules regarding these courses. To apply for them, students have to ask for the Registration Form to [incoming.eib@ehu.eus](mailto:incoming.eib@ehu.eus) before June 15<sup>th</sup> / November 15<sup>th</sup>. Afterwards, USAC will send a message with the courses they can attend to. **Late applications will not be considered.**

Students are not allowed to start attending the classes later than the starting date. Attendance is compulsory in every session.

On the other hand, USAC teachers want their students to have the compulsory textbook in the starting date. So that, students need to get the exact textbook on the correct edition when they start following the lectures. If not, they will not be allowed to attend the courses.

### USAC Courses – 2020 Fall semester

Subject	ECTS
Economic and Political Institutions of the European Union	6
Global Economics	6
International Strategic Management	6
Principles of Marketing	6

### USAC Courses - 2021 Spring semester

Subject	ECTS
Corporate Finance	6
Consumer Behavior	6
Economic Development and Non-Governmental Organizations	6
International Marketing	6
Management and Leadership	6
Operations Management	6



## COURSES OF BUSINESS AND MANAGEMENT

Exchange students are allowed to attend courses at the [main section of the Faculty of Economics and Business Studies](#). Those courses correspond to the following degrees:

- BSc in Business Administration and Management
- BSc in Economics
- BSc in Finance and Insurance
- BSc in Taxation and Public Administration
- BSc in Marketing

There are also some courses offered in English at the [Faculty of Economics and Business Studies, Elcano section](#), corresponding to the BSc in Business Management.