

ACADEMIC YEAR 2022/2023

List of courses offered in English

(07/11/2022)

Courses of Engineering:

[First semester / Fall semester](#)

[Second semester / Spring semester](#)

[Full academic year](#)

[Project Works – Master Thesis](#)

USAC courses

Courses of Business and Management

COURSES OF ENGINEERING

First Semester / Fall Semester (September-January)

Code	Subject	ECTS	Bachelor's Degree or Master	Year
25110	Statistics	6	BSc in Industrial Technology Engineering	2
25971	Calculus (Industrial Eng.)	6	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
25972	Algebra	6	BSc in Telecommunications Engineering	1
25991	Automatic Regulation	6	BSc in Industrial Electronics and Automatics Engineering	3
26571	Chemistry	6	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
26592	Electrical Technology	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	Environmental Technologies	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	4
27303	Linear Algebra I	4,5	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
27306	Graphics in Engineering	6	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
27308	Fundamentals of Materials Science	6	BSc in Industrial Technology Engineering	2
27309	Extended Mathematics	6	BSc in Industrial Technology Engineering	2

27311	Fluid Mechanics	6	BSc in Industrial Technology Engineering	2
27316	Analysis & Operation of Electrical Machinery I	4,5	BSc in Industrial Technology Engineering	3
27319	Thermotechnics	6	BSc in Industrial Technology Engineering	3
27320	General Electronics	6	BSc in Industrial Technology Engineering	3
27342	Extended Mathematics	7,5	BSc in Telecommunications Engineering	2
27345	Calculus I	6	BSc in Telecommunications Engineering	1
27353	Basic Electronics	6	BSc in Telecommunications Engineering	1
27387	Digital Systems	6	BSc in Telecommunications Engineering	3
27448	English I (only Marine and Nautical topics)	6	BSc in Nautical Studies and Maritime Transport BSc in Marine Studies	1
27678	Industrial Electronics	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	2
27681	Materials Science	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	2
27697	Discrete Mathematics	6	BSc in Computer Engineering in Management and Information Systems	1
503333	Scientific Writing and Presentation	4,5	Master in Advanced Materials Engineering	1
503705	Sustainability Criteria and Life Cycle Analysis	3	Master in Research in Energy Efficiency and Sustainability Erasmus Mundus Master in Smart Cities and Communities (SMACCs)	1
503706	Heat and Humidity Transfer	3	Master in Research in Energy Efficiency and Sustainability Erasmus Mundus Master in Smart Cities and Communities (SMACCs)	1
503709	Energy Technologies for Buildings	3	Master in Research in Energy Efficiency and Sustainability Erasmus Mundus Master in Smart Cities and Communities (SMACCs)	1
503907	Chemical Process Design	3	Master In Industrial Engineering	1

504119	English for the Maritime Business	6	Master in Nautical Studies and Maritime Transport	1
504247	Green Design and Manufacture	6	Master in Mechanical Engineering	2
504899	Sustainability	3	Master in Project Management	2
504908	Research in Project Management	3	Master in Project Management	2
504910	EFQM Excellence Model	3	Master in Project Management	2
504911	Ecodesign and Circular Economy	3	Master in Project Management	2
504912	Product Life Cycle Management	3	Master in Project Management	2
504914	Technologies for Project Management	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	Robotics	6	BSc in Industrial Electronics and Automatics Engineering	3
26518	English for Industrial Engineering	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	4
26570	Computer Science	6	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
26677	Advanced Numerical Methods	6	BSc in Industrial Technology Engineering	3
27304	Extended Physics	6	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
27307	Extended Engineering Graphics	6	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
27310	Analysis of Electrical Circuits	6	BSc in Industrial Technology Engineering	2
27312	Thermodynamics	6	BSc in Industrial Technology Engineering	2
27313	Extension of Differential Equations	6	BSc in Industrial Technology Engineering	2
27316	Analysis & Operation of Electrical Machinery II	4,5	BSc in Industrial Technology Engineering	3
27321	Chemical Technology	6	BSc in Industrial Technology Engineering	3
27324	Environmental Science & Technology	6	BSc in Industrial Technology Engineering	4
27346	Calculus II	6	BSc in Telecommunications Engineering	1

27354	Electronic Devices & Circuits	6	BSc in Telecommunications Engineering	1
27382	Treatment of Signals	6	BSc in Telecommunications Engineering	1
27452	English II (Marine and Nautical topics)	6	BSc in Nautical Studies and Maritime Transport BSc in Marine Studies	1
27674	Fluid Mechanics	6	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	2
27718	English for Information Technology	6	BSc in Computer Engineering in Management and Informations Systems	4
27725	Hydraulic Facilities and Machinery	6	BSc in Mechanical Engineering	3
502149	Modelling of Wind/Marine Current Turbine-Driven Electric Generators	3	Master's in Integration of Renewable Energies in the Electric System	1
502150	Impact of Distributed Generation on the Electric Power System	3	Master's in Integration of Renewable Energies in the Electric System	1
502153	Electrical Grid Operation. Transportation and Distribution	3	Master's in Integration of Renewable Energies in the Electric System	1
503700	Exergy Analysis and Thermoconomics. Application to Energy Conversion Systems	3	Master in Research in Energy Efficiency and Sustainability Erasmus Mundus Master in Smart Cities and Communities (SMACCs)	1
503910	Fluid Machinery and Installations	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	Calculus	12	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	1
27414	Physics I	9	BSc in Environmental Engineering BSc in Industrial Organization Engineering BSc in Industrial Technology Engineering	1
27673	Fundamentals of Physics in Engineering	12	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	1
27675	Chemical Fundamentals of Engineering	9	BSc in Electrical Engineering BSc in Industrial Electronics and Automatics Engineering BSc in Mechanical Engineering	1
27677	Graphic Expression	9	BSc in Electrical Engineering 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. **Due to pandemic situation, groups are very small, so there are very few places. In addition, if number of students interested in a course is not enough as to full the corresponding group, that course will not be offered finally.**

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 before June 15th / November 15th. 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 – 2022 Fall semester

Subject	ECTS
Consumer Behavior	6
Corporate Finance	6
Human Resource Management	6
International Marketing	6
Leadership and Management	6
Operations Management	6

USAC Courses – 2023 Spring semester

Subject	ECTS
Consumer Behavior	6
Corporate Finance	6
International Marketing	6
Management & 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.