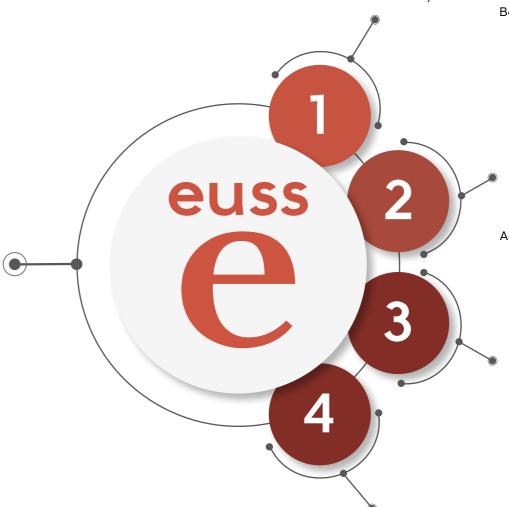


#### WHO ARE WE?

Our school The Rinaldi Foundation Institutional Identity



#### WHERE IS EUSS LOCATED

Meet Barcelona: Visit and love it

Meet Catalonia: A land that invites you to dream

Accommodation

#### WHAT DO WE DO?

Bachelor's Degree in Automotive Engineering

Bachelor's Degree in Automation and Industrial Electronics Engineering

Bachelor's Degree in Engineering Renewable Energies And Energy Efficiency

Bachelor's Degree in Mechanical Engineering

Bachelor's Degree in Industrial Organization

Double Bachelor's Degree in Automation and Industrial Electronics Engineering + Mechanical Engineering

#### **HOW DO WE DO IT?**

Institutional Quality

Educational Model: Engineering By Doing

Our Strengths:

Support

**Facilities** 

International Mobility Programmes

University- Business and Teaching

Innovation

Alumni

Research

**EUSS Motorsport** 

## WHO ARE WE? E WE?

#### **OUR SCHOOL**

Escola Universitària Salesiana Sarrià (EUSS) is an engineering school with over 25 years' experience which has a distinctive identity. It was created on the initiative of creating a higher educational centre under the Salesian approach to education. Our school is attached to Universitat Autònoma de Barcelona (UAB). We specialise in university studies in the field of engineering and, more specifically, in industrial engineering. EUSS is part of the Salesian Institutions of Higher Education.



#### THE RINALDI FOUNDATION

EUSS is promoted and supported by the Rinaldi Foundation, a non-profit legal entity whose purpose is the education and training of young university students, through the creation of our school.

#### **MISSION**

Through teaching, research and training, EUSS promotes the personal development, as well as the enrichment, of the industrial and cultural fabric of our country, thus contributing to building a fairer and more united world.

Teachers and students, together with the administrative and service staff make up an academic community that shares the style of coexistence, and interpersonal relationships the Salesian charism is so well known for.



EUSS aims to achieve wide academic plus social recognition in the Catalan area of industrial engineering, through the transmission of knowledge along with the development of the competencies, and skills required for the different specialties.

#### **VALUES**

#### **Our Identity**

- **1.** We understand freedom, justice, solidarity, tolerance, peace, and sustainability as fundamental values in our school.
- 2. We embrace Don Bosco's educational system, based on the trinomial of Esteem, Thought, and Transcendence, together with the network of quality personal relationships. All this generates an atmosphere of proximity that encourages young people's comprehensive personal development.
- **3.** We are constantly available along the students' formative process by offering them both dialogue, and active presence.
- **4.** We promote dialogue between technology and humanism, and between culture and faith in the academic environment.

#### Our teaching-learning approach

- **5.** We give personalised attention to each of our students.
- **6.** We encourage initiative and research.
- **7.** We place special emphasis on the practical side of study.
- **8.** We are constantly seeking the most appropriate teaching methods for our courses.
- **9.** We are constantly seeking the most appropriate teaching methods for our courses.
- **10.** We promote the use of information and communication technologies in the educational and technological fields.

#### Our university environment

- **11.** We integrate teaching and research in the curricular development of both students and teachers.
- **12.** We offer society the results of our work, our study, and our research.
- **13.** We collaborate with companies, social actors, as well as other university centres.
- **14.** We systematically evaluate, and update our university project.
- **15.** We foster the continuous training of every member of our academic community. At the same time, we promote programs aimed at our society, and also the business world.

#### Our target group

- **16.** We opt for a close, participative, transparent, high-quality style in the management and the school services.
- **17.** We are alert to the specific emerging values of the younger generations.
- **18.** We approach study as responsible work in preparation for professional practice.
- 19. We encourage our students to actively, responsibly, and committedly participate in different activities and forms of association, both inside and outside our school.
- **20.** We favour our students' labour market integration, together with international mobility while encouraging their entrepreneurial spirit.
- **21.** We adapt our training offer to people already in the working world.



## WHAT DO WE DO?



**Automotive Engineering** 

Automation and Industrial Electronics Engineering

Engineering Renewable Energies And Energy Efficiency

**Mechanical Engineering** 

**Industrial Organization** 



Automation and Industrial Electronics Engineering + Mechanical Engineering





#### **BACHELOR'S DEGREE IN AUTOMOTIVE ENGINEERING**

#### **Description**

This bachelor's degree will train you as an engineering professional capable of contributing to the improvement of the competitiveness of businesses from the automotive sector both comprehensively and holistically. You will be prepared to work across the value chain, especially in the areas of design, development, manufacturing and distribution logistics.

You also will be able to collaborate both in a big automobile manufacturer, and in the associated auxiliary industry, so that you will contribute to successfully achieving the main future challenges of this industry: digitalization, also known as Industry 4.0, vehicles running on alternative energy sources, connected vehicles and self-driving cars.

#### **TEACHING PROPOSAL**

After graduating, you will:

Apply engineering and industry basic principles to the mobility and automotive sector.

Apply advanced manufacturing principles, processes, structural design of the vehicle, mechanical resistance, dynamic response and vibration, aerodynamics, component and vehicle electrical and electronic engineering, machines and engines, and power electronics.

Draft, develop and manage vehicle projects and their subsystems, as well as their corresponding manufacturing facilities, according to the legislation in force, applying quality principles and methods, considering their environmental impact and sustainability.

# Develop and direct design and system integration projects in manufacturers of the automotive and vehicles sector in general, ancillary components industry and vehicle competitions. Develop and manage manufacturing, logistics, test, quality control and maintenance projects in manufacturers of the automotive and vehicles sector in general, and the ancillary components industry. Direct the production, quality control and logistics of a production plant of vehicles and components. Develop consultancy in automotive

Technical personnel in the public administration with expertise in automotive and mobility.

engineering projects.



	1st year	2nd year	3rd year	4th year	TOTAL (ECTS)
Basic Training (FB)	54	6	-	-	60
Compulsory (OB)	6	54	60	18	138
Optional (OT)	-	-	-	42	48

			<b>ECTS</b>
	FB	Physics	8
po	FB	Mathematics	7
lst period	FB	Computer Science	6
<u>                                    </u>	FB	Introduction to Business Management	6
	ОВ	Anthropology	3
L	FB	Chemistry <sup>1</sup>	6
ίξ	FB	Calculus	8
pe Pe	FB	Engineering Design Graphics	6
2nd period	FB	Electrical Physics	7
~	ОВ	Environmental Engineering <sup>1</sup>	3

			<b>ECTS</b>
	ОВ	Business Organization	3
00	ОВ	Electronic Systems	7
period	FB	Statistics	6
St	ОВ	Theory of Machines and Mechanisms	7
	ОВ	Automation and Industrial Control Methods <sup>1</sup>	7
	ОВ	Materials Science and Technology <sup>1</sup>	6
period	ОВ	Fundamentals of Thermal and Fluid Engineering	6
	ОВ	Circuit Theory	6
Zud	ОВ	Technical Office and Project Management	6
	ОВ	Strenght of Materials <sup>1</sup>	6

				<b>ECTS</b>
		ОВ	Elasticity <sup>2</sup>	6
	ਰ	ОВ	Industrial Manufacturing Systems	3
	erio	ОВ	Automotive Aerodynamics	6
	lst period	ОВ	Automotive Electronics	6
	=	ОВ	Dynamics and Vibrations	6
		ОВ	Mechanical Automotive Subsystems	3
		ОВ	Structural Vehicle Design	3
	90	ОВ	Manufacturing Processes	6
	pe	ОВ	Heat and Hybrid Engines	6
	2nd period	ОВ	Electric Motors and Power Electronics	9
	7	ОВ	Truth, Kindness and Beauty	3
<b>′</b> ε	ar	ОВ	Automotive Engineering Projects	6
7				

		<b>ECTS</b>
OE	Smart Automotive Subsystems	6
OE	Bachelor's Degree Final Project	12
ОТ	Work Placement	12
OT	Foreign Language (English)	6
ОТ	Foreign Language (German)	6

#### 4th YEAR SPECIALIZATIONS:

SPECIALIZATION: Automotive Design					
		<b>ECTS</b>			
OT	Science of Mobility	6			
OT	Autonomous Driving and Connected Vehicles	6			
ОТ	Occupant and Automotive Safety	6			
ОТ	Sustainable Vehicles	3			
ОТ	Electrical Energy Storage	3			
ОТ	Motorsport Aerodynamics	6			

	SPECIALIZATION: Automotive Manufacturing					
		<b>ECTS</b>				
ОТ	Supply Chain Management	6				
ОТ	Robotic Systems	6				
ОТ	Product and Process Engineering	6				
ОТ	Quality Control amb Management Systems	6				
ОТ	Industrial Automation	6				

		<b>ECTS</b>
OT	Lap-Time Simulation and Race Engineering	6
OT	Data Acquisition Systems and Telemetry	6
ОТ	Optimization of Vehicle Parameters	6
ОТ	Occupant and Automotive Safety	6
ОТ	Motorsport Aerodynamics	6

**SPECIALIZATION: Motor Sport** 









#### BACHELOR'S DEGREE IN AUTOMATION AND INDUSTRIAL ELECTRONIC ENGINEERING

#### **Description**

You will become an engineer capable of applying electronics and automation advances to industrial processes: manufacturing, control, intelligent products...

In the past few years, automation has become one of the most important sectors of our economy and will be even more important in the future. Words such as industry 4.0, internet of things, smart grids, smart cities, domotics, robotics, energy efficiency, etc. are starting to form part of our everyday vocabulary. In an almost immediate future, everything will

be automated and connected. As an engineer, you will participate in the design of automated systems, in chosing electronic components and systems, in programming these systems, and in their maintenance. You also will be capable of organising and directing the production of a company and its commercial and technical sectors.

This bachelor's degree has been officially recognised as having the professional attributes of a Technical Industrial Engineer. (AQU) (2501133-70106-17).

#### **TEACHING PROPOSAL**

After graduating, you will:

Be proficient in technologies related to automation and industrial electronics, as well as in production, and company management and organization.

Analyze, diagnose and solve automation and industrial electronics problems with a high degree of professionalism.

Collect and interpret relevant data on industrial automation and electronics engineering by means of measurements, calculations and simulations.

Draft and manage projects in the field of automation and industrial electronics, according to specifications, regulations and standards, as well as to communicate information, ideas, problems and solutions to the audience effectively.

Develop a degree of autonomy that will allow them to undertake high-level specialized studies, and subsequent further learning.



# Automation and Industrial Electronic STUDY PLAN Certificate: Oficial Bachelor's Degree Duration: 4 years Total credits: 240 ECTS

	1st year	2nd year	3rd year	4th year	TOTAL (ECTS)
Basic Training (FB)	54	6	-		60
Compulsory (OB)	6	54	60	12	132
Optional (OT)	-	-	-	48	48

				EC 12
		FB	Physics	8
	poi	FB	Mathematics	7
	period	FB	Computer Science	6
	<u> </u>	FB	Introduction to Business Management	6
l		ОВ	Anthropology	3
I	_	FB	Chemistry <sup>1</sup>	6
	period	FB	Calculus	8
۱		FB	Engineering Design Graphics	6
	2nd	FB	Electrical Physics	7
	,,	ОВ	Environmental Engineering <sup>1</sup>	3

				<u>ECTS</u>
		ОВ	Business Organization	3
	poi	ОВ	Electronic Systems	7
	lst period	FB	Statistics	6
	1st 1	ОВ	Theory of Machines and Mechanisms	7
		ОВ	Automation and Industrial Control Methods <sup>1</sup>	7
4		ОВ	Materials Science and Technology <sup>1</sup>	6
	period	ОВ	Fundamentals of Thermal and Fluid Engineering	6
۱	be	ОВ	Circuit Theory	6
	2nd	ОВ	Technical Office and Project Management	6
	N	ОВ	Strenght of Materials <sup>1</sup>	6

			ECTS
	ОВ	Electronic Technology	3
-	ОВ	Digital Electronics and Microprocessors	3
1st period	ОВ	Industrial Manufacturing Systems	3
t pe	ОВ	Electrotechnics	6
5	ОВ	Automatic Control	6
	ОВ	Electronic Engineering Project I	9
	ОВ	Truth, Kindness and Beauty	3
ਰ	ОВ	Industrial Compunting and Communications	6
eric	ОВ	Industrial Automation	6
2nd period	ОВ	Power Electronics <sup>2</sup>	9
2	ОВ	Electronic Instrumentation	6
	ОВ	Electronic Engineering Project II	6

			<u>ECTS</u>
	ОВ	Bachelor's Degree Final Project	12
4	ОТ	Work Placement	12
	ОТ	Foreign Language (English)	6
	ОТ	Foreig Languange (German)	6

#### 4th YEAR SPECIALIZATIONS:

SPECIALIZATION: Industry 4.0				
		<u>ECTS</u>		
ОТ	Information and Communications Technology	6		
OT	Signal Processing and Data Analysis	6		
ОТ	Industrial Internet of Things	6		
ОТ	Industrial Communications	6		
ОТ	Robotic Systems	6		

	SPECIALIZATION: Robotics and Atificial Vision			
		<u>ECTS</u>		
ОТ	Robotic Systems	6		
ОТ	Advanced Control Techniques	6		
ОТ	Industrial Communications	6		
ОТ	Advanced Robotics <sup>2</sup>	6		
ОТ	Industrial Electronics Applications <sup>2</sup>	6		
ОТ	Industrial Internet of Thinas	6		









#### BACHELOR'S DEGREE IN ENGINEERING RENEWABLE **ENERGIES AND ENERGY EFFICIENCY**

#### **Description**

You will become an engineer capable of designing renewable energy systems and have skills needed to use energy efficiently in order to minimize any environmental impacts.

As a graduate in Renewable Energy and Energy Efficiency, you will discover current renewable energy sources, such as hydrolic, eolic, photovoltaic, geothermal, solar thermal, concentrated solar power (CSP) and biomass. What is more, you will be oriented towards the search of cles, micro energies and harvesting.

new clean energy sources and the technologies they may imply, in order to design, implement and maintain energy systems producing electricity and related to the network, transport and storage of electrical energy, thereby providing solutions which can optimize the process with ways to economize and efficiently use energy.

Our engineers are trained in the most advanced fields: intelligence of microgrids, Internet of things, electric vehi-

#### **TEACHING PROPOSAL**

After graduating, you will:

Apply advanced principles of machines and electrical installations, power electronics, automatic regulation, instrumentation, as well as define energy-efficiency features of buildings and installations.

Know the nature of wind, water resources, biomass and solar energy.

Design renewable energy systems.

Write, develop and manage energy generation and efficiency projects in conformity with the legislation in force, quality methods and taking into account the environmental impact and sustainability.

Develop a degree of autonomy that will allow them to undertake high-level specialized studies, and subsequent further learning.

#### **CAREER PROSPECTS** Electricity production center projects design and implementation based on renewable energies. Design, implementation, rehabilitation and maintenance of efficient facilities. Energy efficiency and resource optimization consultancy; environmental, economic and social impact studies. Collaboration with companies that produce renewable energy, distribute and commercialize

Technical personnel in the public

energies and energy efficiency.

administration with expertise in renewable

#### Renewable Energies and **Energy Efficiency**

STUDY PLAN

Certificate: Oficial Bachelor's Degree

Duration: 4 years

Total credits: 240 ECTS

	1st Year	2nd Year	3rd Year	4th Year	TOTAL (ECTS)
Basic Training (FB)	54	6	-		60
Compulsory (OB)	6	54	60	12	132
Optional (OT)	-	-	-	48	48

			<u>EC 13</u>
	FB	Physics	8
po	FB	Mathematics	7
1st period	FB	Computer Science	6
<u> </u>	FB	Introduction to Business Management	6
	ОВ	Anthropology	3
L	FB	Chemistry <sup>1</sup>	6
period	FB	Calculus	8
	FB	Engineering Design Graphics	6
2nd	FB	Electrical Physics	7
~~	ОВ	Environmental Engineering <sup>1</sup>	3

			<b>ECTS</b>
	ОВ	Business Organitzation	3
po	ОВ	Electronic Systems	7
period	FB	Statistics	6
<u>                                    </u>	ОВ	Theory of Machines and Mechanisms	7
	ОВ	Automation and Industrial Control Methods <sup>1</sup>	7
	ОВ	Materials Science and Technology <sup>1</sup>	6
period	ОВ	Fundamentals of Thermal and Fluid Engineering	6
	ОВ	Circuit Theory	6
2nd	ОВ	Technical Office and Project Management	6
~	OB	Strenath of Materials 1	6

				<b>ECTS</b>
		ОВ	The Energy Market and Energy Management	3
-	<b>5</b>	ОВ	The Internet of Things for Energy Systems	6
ŀ	일	ОВ	Solar Energy	6
	st period	ОВ	Electrical Machines	6
ľ	<u>s</u>	ОВ	Control Systems	6
ł		ОВ	Electrical Energy Generation	3
Ι.		ОВ	Truth, Kindness and Beauty	3
Į.	period	ОВ	Wind and Biomass Energy	6
	o o	ОВ	Energy Efficiency	6
	znd	ОВ	Power Electronics <sup>2</sup>	9
ľ	`	ОВ	Engineering Projects	6

			<b>ECTS</b>
	ОВ	Bachelor's Degree Final Project	12
4	ОТ	Work Placement	12
	ОТ	Foreign Language (English)	6
	ОТ	Foreign Language (German)	6

#### 4th YEAR SPECIALIZATIONS:

#### SPECIALIZATION: Generation and Efficient Energy Consumption

		<u>ECTS</u>
ОТ	Microenergies and Harvesting	6
ОТ	Smart Buildings	6
ОТ	Hydraulic, Geothermal and Tidal Energy	6
ОТ	Sustainable Vehicles	3
ОТ	Electrical Energy Storage	3
ОТ	Distributed Energy Generation	6
OT	Thermal Installations of Buildings	6

#### **SPECIALIZATION: Electrical Engineering**

		EC 13
ОТ	Industrial Manufacturing Systems	3
ОТ	Smart Buildings	6
ОТ	Distributed Energy Generation	6
ОТ	Low Voltage Electrical Installations	6
ОТ	Medium and High Voltage Electrical Installations	9
ОТ	Electrical Power Systems	6
ОТ	Thermal Installations of Buildings	6









#### BACHELOR'S DEGREE IN MECHANICAL ENGINEERING

#### **Description**

As a graduate in Mechanical Engineering you will specialise in the manufacturing of industrial-related products (machinery, structures, auto parts, etc.), taking into account the need for a design which surpasses existing problems, know and choose the ideal materials, plan the manufacturing, and control the quality of the finished product, while at the same time taking into account its environmental impact. You will conduct this process thanks to a series of advanced simulation tools for circuits, computer - assisted 3D designs, numerical simulations, and

simulations of computer-assisted manufacturing (CAM) processes. You will also be capable of organising and directing the production of a company and its commercial and technical sectors, as well as being officially recognised as having the professional attributes of a Technical Industrial Engineer.

This bachelor's degree has been officially recognised as having the professional attributes of a Technical Industrial Engineer. (AQU) (2500896-70106-17).

#### **TEACHING PROPOSAL**

After graduating, you will:

Be proficient in science and material technology, technologies related to design, development and production of mechanical systems and structures, machines and thermal motors...

Analyze, diagnose and solve mechanical engineering problems in real professional environments.

Collect and interpret relevant data on mechanical engineering, through measurements, calculations and simulations to provide judgments, studies or reports.

Write and direct projects in the field of mechanical engineering, in compliance with the mandatory specifications, regulations and rules.

Develop a degree of autonomy that will allow them to undertake high-level specialized studies, and subsequent further learning.

#### **CAREER PROSPECTS** Construction, assembly and maintenance of any industrial installation in the mechanical and thermal area. Design and testing of new products or machine parts using CAD programs. Study using finite elements and CAE programs, simulations and the manufacture of special and prototype pieces. Programming of robots and obtaining numerical control programs using CAM systems. Consultancy, logistics, management, organization of production, planning, quality, facilities, environmental consultancy services and sales in companies operating in this field.

## Mechanical Engineering STUDY PLAN Certificate: Oficial Bachelor's Degree Duration: 4 years Total credits: 240 ECTS

	1st Year	2nd Year	3rd Year	4th Year	TOTAL (ECTS)
Basic Training (FB)	54	6	-	-	60
Compulsory (OB)	6	54	60	12	132
Optional (OT)	-	-	-	48	48

FB	Physics	8
FB	Mathematics	7
FB	Computer Science	6
FB	Introduction to Business Management	6
ОВ	Anthropology	3
FB	Chemistry <sup>1</sup>	6
FB	Calculus	8
FB	Engineering Design Graphics	6
FB	Electrical Physics	7
ОВ	Environmental Engineering <sup>1</sup>	3
	FB OB FB FB FB FB	FB Computer Science FB Introduction to Business Management OB Anthropology FB Chemistry 1 FB Calculus FB Engineering Design Graphics FB Electrical Physics

			<b>ECTS</b>
	ОВ	Business Organization	3
po	ОВ	Electrical and Electronic Technology	7
period	FB	Statistics	6
<u>                                    </u>	ОВ	Theory of Machines and Mechanisms	7
	ОВ	Automation and Industrial Control Methods 1	7
	ОВ	Materials Science and Technology 1	6
period	ОВ	Fundamentals of Thermal and Fluid Engineering	6
	ОВ	Circuit Theory	6
2nd	ОВ	Technical Office and Project Management	6
~	ОВ	Strength of Materials 1	6

				<b>ECTS</b>
		ОВ	Elasticity <sup>2</sup>	6
	po	ОВ	Industrial Manufacturing Systems	3
	lst period	ОВ	Mechanical Technology	6
	<u> </u>	ОВ	Advanced Engineering Desing Graphics	6
		ОВ	Fluids and Thermal Engineering	6
		ОВ	Truth, Kindness and Beauty	3
	period	ОВ	Design of Machines and Mechanisms	6
	pe	ОВ	Theory of Structures and Industrial Constructions	6
	2nd	ОВ	Heat Engines and Motors	6
	•	ОВ	Manufacturing Processes	6
Ye	ar	ОВ	Mechanical Engineering Projects	6

				<u>ECTS</u>
I	O	В	Bachelor's Degree Final Project	12
	0	Т	Work Placement	12
	0	T	Foreign Language (English)	6
	0	Т	Foreign Language (German)	6

#### 4th YEAR SPECIALIZATIONS

	SPECIALIZATION: Industrial Processes	
		<u>ECTS</u>
OT	Advanced Manufacturing Methods <sup>2</sup>	6
ОТ	Information Systems for Design and Manufacture	6
ОТ	CNC Manufacture and Simulation	6
ОТ	Automation of Industrial Processes	6
OT	Design of Hydraulic and HVAC Installations	6
OT	Product Ecodesign and Carbon Footprint <sup>2</sup>	6
ОТ	Quality Control and Management Systems	6

SPECIALIZATION: Integrated Design				
		<b>ECTS</b>		
ОТ	Mechanical Design and Virtual Reality <sup>2</sup>	6		
ОТ	Computer-Aided Engineering (CAE) <sup>2</sup>	6		
ОТ	Material Selection for Design	6		
ОТ	Advanced Strength of Materials	6		
ОТ	Quality Control and Management Systems	6		
ОТ	Product Ecodesign and Carbon Footprint <sup>2</sup>	6		
ОТ	Design of Hydraulic and HVAC Installations	6		









#### BACHELOR'S DEGREE IN INDUSTRIAL ORGANIZATION

#### **Description**

As a graduate in Engineering in Industrial Organization, you will be prepared to design, develop, implement and improve integrated systems that include people, materials, information, equipment and energy in a way that is in ke ping with the business strategy and based on criteria of efficiency and sustainability. You will have an advanced vision of the relationship between engineering and management, planning, administration, control, research and organization of services, and also have to be able

to integrate these management systems in different technological environments. The training you receive in this bachelor's degree will allow you to consolidate the tradition of engineering in the industrial area with the new paradigm represented by the 4.0 industry.

This bachelor's degree has been officially recognised as having the professional attributes of a Technical Industrial Engineer. (AQU) (2500263-70106-17).

#### **TEACHING PROPOSAL**

After graduating, you will:

- Be proficient in industrial technologies, production management and organization.
- Analyze, diagnose and solve automation and industrial electronics problems with a high degree of professionalism.
- Collect and interpret relevant data on technology, economic and financial, and production processes indicators to provide judgments, studies or reports.
- Write and direct projects in the field of management, as well as operation organization and processes in compliance with the mandatory specifications, regulations and rules.
- Develop a degree of autonomy that will allow them to undertake high-level specialized studies, and subsequent further learning.

## CAREER PROSPECTS

Plant management, quality, safety and the environment management, purchasing and supplies management, organization management, continuous improvement management, processes management, or junior consultancy.

In the longer term, depending on your professional and academic career, you will opt for general company management, innovation management, production management system management or research management in technology centers.

#### Industrial Organization

STUDY PLAN

Certificate: Oficial Bachelor's Degree Duration: 4 years

Total credits: 240 ECTS

	1st Year	2nd Year	3rd Year	4th Year	TOTAL (ECTS)
Basic Training (FB)	54	6	-		60
Compulsory (OB)	6	54	60	12	132
Optional (OT)	-	-	-	48	48

ECTS

		FB	Physics	8
j	8	FB	Mathematics	7
	period	FB	Computer Science	6
I.	<u> st</u>	FB	Introduction to Business Management	6
		ОВ	Anthropology	3
Ι.	period	FB	Chemistry <sup>1</sup>	6
١.		FB	Calculus	8
		FB	Engineering Design Graphics	6
	2nd	FB	Electrical Physics	7
(		ОВ	Environmental Engineering 1	3

			<b>ECTS</b>
	ОВ	Professional Ethics <sup>1</sup>	3
Po	ОВ	Electrical and Electronic Technology	7
lst period	FB	Statistic	6
St	ОВ	Manufacturing Methods <sup>1</sup>	7
	ОВ	Automation and Industrial Control Methods <sup>1</sup>	7
	ОВ	Materials Science and Technology <sup>1</sup>	6
period	ОВ	Fundamentals of Thermal and Fluid Engineering	6
pe	ОВ	Information and Communications Technology	6
2nd	ОВ	Technical Office and Project Management	6
•	ОВ	Economic and Financial Engineering	6

	ОВ	Mechanical Technology	6
Po	ОВ	Business Management	6
period	ОВ	Statistical Control of Products and Processes	6
<u> </u>	ОВ	Quantitative Methods for Management <sup>2</sup>	6
	ОВ	Economy	6
_	ОВ	Truth, Kindness and Beauty	3
period	ОВ	Operations Research <sup>2</sup>	9
	ОВ	Quality, Security and Environmental Management	6
2nd	ОВ	Technology and Economic Innovation Policy	6
~	ОВ	Industrial Organization Engineering Projects	6

			ECTS
4	ОВ	Bachelor's Degree Final Project	12
4	ОТ	Work Placement	12
	ОТ	Foreign Language (English)	6
	ОТ	Foreign Language (German)	6
	ОТ	Communicative and Social Skills	6
	ОТ	Science, Technology and Society	6

#### 4th YEAR SPECIALIZATIONS

#### SPECIALIZATION: Business Administration

		<b>ECTS</b>
ОТ	Knowledge and Innovation Management	6
ОТ	Management Information Systems	6
ОТ	Human Factor Management	6
ОТ	Industrial Marketing	6
ОТ	Project Management	6

#### SPECIALIZATION: Operations

		<b>ECTS</b>
ОТ	Supply Chain Management	6
ОТ	Plant Layout and Design	6
ОТ	Product and Process Engineering	6
ОТ	Management Information Systems	6
ОТ	Project Management	6

#### SPECIALIZATION: Industrial Engineering

		<b>ECTS</b>
ОТ	Fuids and Thermal Engineering	6
ОТ	Manufacturing Processes	6
ОТ	Advanced Engineering Desing Graphics	6
ОТ	CNC Manufacture and Simulation	6
ОТ	Industrial Automation	6
ОТ	Automatic Control	6
ОТ	Electrotechnics	6











#### **DOUBLE BACHELOR'S DEGREES: AUTOMATION AND INDUSTRIAL ELECTRONIC AND MECHANICAL**

#### Description

Mechatronics, as this discipline is known, aims to endow products and materials with intelligence. All "smart" products require materials, components, etc. that incorporate sensors, actuators, communications that provide them with intelligence within more complex systems.

The degree in Automation and Industrial Electronic Engineering provides the training necessary for the application of electronic and microelectronic devices to the automation of production processes.

The Bachelor's Degree in Mechanical Engineering provides the training necessary to create a design which solves existing problems, to know and select the ideal materials, plan the manufacturing and control the quality of the product obtained considering, while at the same time taking into account its environmental impact.

That is why engineers graduating with these two degrees are capable of taking on the design, assembly, manufacture, production, implementation and planning of systems, projects, quality control, commercialization, processes and machinery in sectors that combine mechanics, electronics, computing and automation.

#### **TEACHING PROPOSAL**

#### After graduating, you will:

Be proficient in materials technology related to design, development and production of mechanical systems and structures, machines and thermal motors ..., and also technologies related to automation and industrial electronics, as well as industrial electronics, production and company management and organization.

Analyze, diagnose and solve automation and industrial electronics and mechanical engineering problems with a high degree of professionalism.

Collect and interpret relevant data on automation, and industrial electronics, and mechanical engineering through measurements, calculations and simulations to provide judgments, studies or reports.

Write and direct projects in the field of mechanical engineering, automation, and industrial electronics according to specifications, regulations and standards, as well as to communicate information, ideas, problems, and solutions to the audience effectively.

Develop a degree of autonomy that will allow them to undertake high-level specialized studies, and subsequent further learning.

#### **CAREER** PROSPECTS

Design, analysis, projection, and maintenance of electronic and microelectronic systems.

Management and commercial organization of electronic product and system companies.

> Control of electric machines, as well as electric drives.

Creation, design, manufacturing, and maintenance of instrumentation systems, automatons and robots.

Construction, assembly and maintenance of any industrial installation in the mechanical and therma

Design and testing of new products or machine parts using CAD programs.

Study using finite elements and CAE programs, simulations and the manufacture of special and prototype pieces.

Programming of robots and obtaining numerical control programs using CAM systems.

Consultancy, logistics, management, organisation of production, planning, quality, facilities, environmental consultancy services and sales in companies operating in this field

#### Double bachelor's degrees:

## Automation and Industrial Electronic and Mechanical

#### STUDY PLAN

Certificate: Oficial Bachelor's Degree Duration: 5 years Total credits: 330 ECTS

	1st Year	2ns Year	3rd Year	4th Year	5th Year	TOTAL (ECTS)
Basic Training (FB)	54	6	-	-	-	60
Compulsory (OB)	6	60	60	48	24 (TFG)	198
Optional (OT)	-	-	6	18	48	72

				EC 15
		FB	Physics	8
7	poi	FB	Mathematics	7
ı	period	FB	Computer Science	6
ı	<u> </u>	FB	Introduction to Business Management	6
ı		ОВ	Anthropology	3
I	_	FB	Chemistry <sup>1</sup>	6
ı	period	FB	Calculus	8
۱	Φ	FB	Engineering Design Graphics	6
ı	2nd	FB	Electrical Physics	7
	,,	ОВ	Environmental Engineering <sup>1</sup>	3

			<b>ECTS</b>
	ОВ	Business Organization	3
1st period	ОВ	Electronic Systems	7
	ОВ	Statistics	6
	ОВ	Theory of Machines and Mechanisms	7
<u>-</u>	ОВ	Automation and Industrial Control Methods 1	7
	ОВ	Industrial Manufacturing Systems	3
	ОВ	Materials Science and Technology <sup>1</sup>	6
Þ	ОВ	Fundamentals of Thermal and Fluid Engineering	6
2nd period	ОВ	Circuit Theory	6
	ОВ	Technical Office and Project Management	6
	ОВ	Strength of Materials <sup>1</sup>	6
	ОВ	Truth, Kindness and Beauty	3
			ECTS
	OB	Flactronic Tachnology	3

			<u>ECTS</u>
	ОВ	Electronic Technology	3
ਰ	ОВ	Digital Electronics and Microprocessors	3
erio	ОВ	Electronic Engineering Project I	9
1st period	ОВ	Electrotechnics	6
<u>"</u>	ОВ	Automatic Control	6
	ОВ	Foreign Language (English or German)	6
	ОВ	Industrial Computing and Communications	3
정	ОВ	Industrial Automation	6
eric	ОВ	Power Electronics <sup>2</sup>	9
2nd period	ОВ	Electronic Instrumentation	6
2	ОВ	Electronic Engineering Project II	6
	ОВ	Manufacturing Processes	6

			<b>ECTS</b>
	OT	Industrial Communications	6
po	ОВ	Mechanical Technology	6
lst period	ОВ	Advanced Engineering Desing Graphics	6
St	ОВ	Fluids and Thermal Engineering	6
	ОВ	Elasticity <sup>2</sup>	6
ρ	ОВ	Design of Machines and Mechanisms	6
2nd period	ОВ	Theory of Structures and Industrial Constructions	6
Ф	ОВ	Heat Engines and Motors	6
2n	ОТ	Work Placement	12
Year	ОВ	Mechanical Engineering Projects	6

		<u>ECTS</u>
ОВ	Bachelor's Degree Final Project	12
ОТ	Optional credits from the Bachelor's Degree in Automation and Industrial Electronic Engineering	24
ОТ	Optional credits from the Bachelor's Degree in Mechanical Engineering	24

Optional credits from the Bachelor's Degree in Automation and Industrial Electronic Engineering			
OT	Advanced Control Techniques	6	
OT	Industrial Internet of Things	6	
OT	Industrial Electronics Applications <sup>2</sup>	6	
OT	Signal Processing and Data Analysis	6	
OT	Information and Communications Technology	6	
OT	Robotic Systems	6	
OT	Advanced Robotics <sup>2</sup>	6	

(	Optional credits from the Bachelor's Degree in Mechanical Engineering				
OT	Information Systems for Design and Manufacture	6			
OT	CNC Manufacture and Simulation	6			
OT	Advanced Manufacturing Methods <sup>2</sup>	6			
OT	Design of Hydraulic and HVAC Installations	6			
OT	Quality Control and Management Systems	6			
OT	Product Ecodesign and Carbon Footprint <sup>2</sup>	6			
OT	Computer-Aided Engineering (CAE) <sup>2</sup>	6			
OT	Material Selection for Design	6			
OT	Advanced Strength of Materials	6			
OT	Mechanical Design and Virtual Reality <sup>2</sup>	6			

#### HOW DO WE DO IT?



Escola Universitària Salesiana de Sarrià has implemented an Internal Quality Assurance System (IQAS) to ensure that the needs and expectations of students, as well as other groups within the academic community, are fully met as a strategic element of its educational and social action.

#### **Institutional Acreditation**

Institutional accreditation is a voluntary process of quality assurance in which the qualifications offered by universities together with their affiliates, their operational processes, and their continuous improvement are externally assessed to determine whether they meet the quality standards set by evaluation agencies.

EUSS has had institutional accreditation since March 2023, with a favourable report from the Catalan Agency for University Quality Assurance (AQU), and a resolution from the Ministry of Universities.

This accreditation ensures the quality of the qualifications offered by EUSS, at the same time its assesses aspects such as the quality of the training programme, the teaching-learning process and the student support, the suitability of the teaching staff, as much as the results quality. EUSS is the first centre affiliated to Universitat Autònoma de Barcelona (UAB) to achieve this recognition, which is renewed every six years.



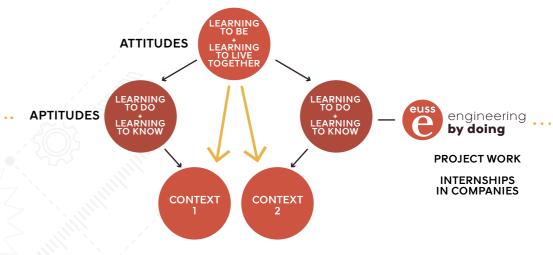
## **OUR EDUCATIONAL MODEL:**ENGINEERING BY DOING

EUSS educational model is framed within the skills-based training pedagogy. It is developed on the basis of the most appropriate educational activities, where project work and internships in companies take a prominent role.

The four skills or competencies that must be the key pillars underlying education and life (learning to BE or personal competency, learning to LIVE TOGETHER or interpersonal competency, learning to DO or methodological competency, and learning to KNOW or technical competency) are the basis of the professional competencies required for the exercise of a given

profession. EUSS emphasises the personal competency (learning to be) since it is from attitudes that we want to promote the acquisition of knowledge, as well as the use of procedures and skills suitable for identifying and meeting new challenges arising from future changes in context, profession, specialty, responsibility, location, etc.

The Engineering by Doing model, which is a distinctive feature of EUSS, is taken on board by each member of the school. It is integrated into our dissemination programmes, and is subject to constant revision with the active participation of other actors in society.



#### **OUR STRENGTHS**

- >> Engineering by Doing

>> Small groups

- >> 50% of training time in laboratories
- >> Mobility programmes
- >> Good engineers, better humans

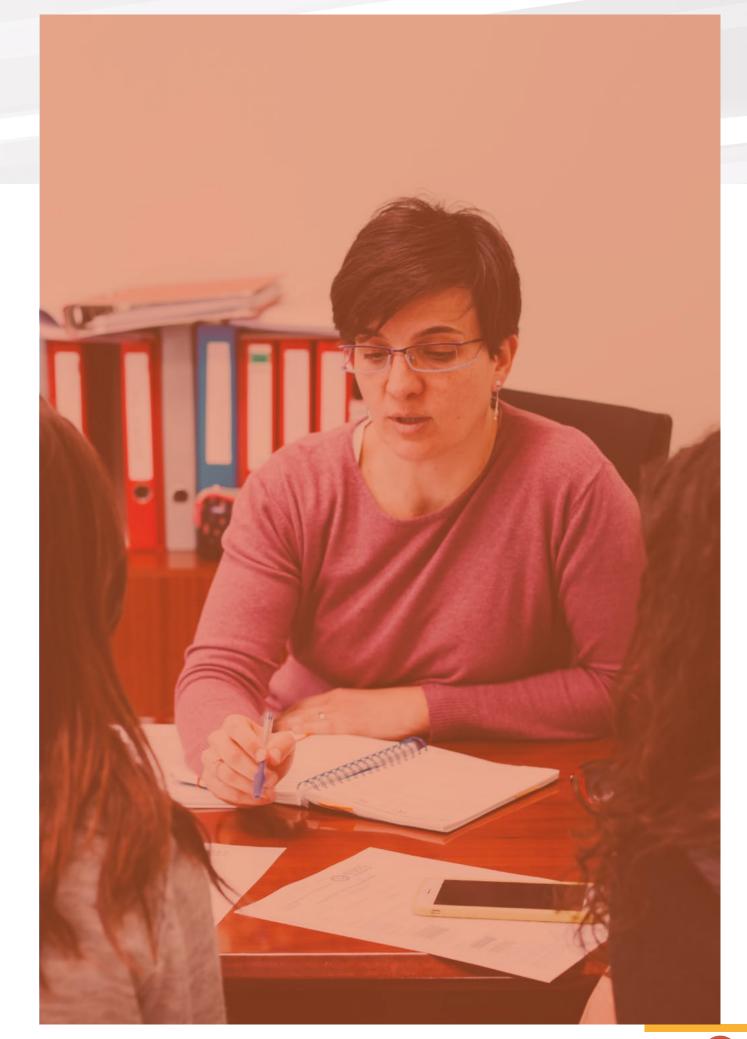
- >> Scholarships and grants
- >> Professional orientation and insertion
- >> 100% pràctiques en empreses
- >> High levels of graduate employability (AQU)
- >>> High levels of satisfaction for graduates and collaboration companies

#### **SUPPORT**

Action Plan with the aim of supporting students students and ensure their integration into universithroughout their university years, in other words, ty life. This Tutorial and Guidance Action Plan has from the moment they enroll until they are ready been acknowledged as good practice by the Cato enter the professional world. This mentoring is talan University Quality Assurance Agency (AQU) carried out through the active presence of the tea- in the institutional accreditation process.

EUSS has established a Tutorial and Guidance ching staff, who assume the role of tutor to monitor

#### This tutorial system consists of 4 stages: **STARTING** STARTING TUTORING TUTORING INTERNSHIP **FINAL PROJECT** (throughout (throughout years **TUTORING** TUTORING 1 and 2) years 3 and 4) (year 4) (Monitoring) **FOLLOW UP** PROFESSIONAL **SPECIALTY** INITIAL



#### **FACILITIES**

The EUSS has its headquarters in a building which is, in some parts, a hundred years old. It was completely refurbished in 2002 to accommodate engineering studies. Our hallmark: to have more laboratories than classrooms.

CLASSROOMS ·····

ACADEMIC MANAGEMENT OFFICE

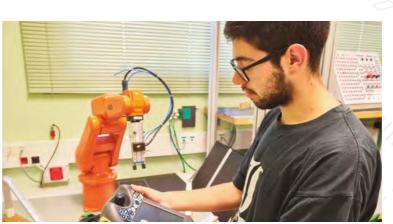
:.... STUDY ROOM



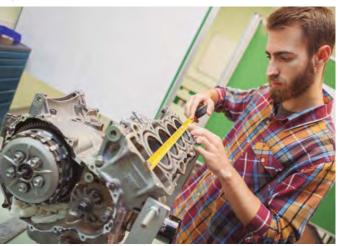


#### ·····LABORATORIES

Industrial Electronics Laboratory, Industrial Informatics Laboratory, Laboratory of Electricity and Electrical Machines, Industrial Automation Laboratory, Automation and Robotics Laboratory, Physics and Mechanical Systems Laboratory, CAD Laboratory, Electronics Technology Laboratory, Mechanical Technology Laboratory, Material Resistance Laboratory, Metrolog and Manufacturing Laboratory, Thermal and Fluid Mechanics Laboratory, Chemistry and Environment Laboratory, Automotive and Manufacturing Laboratory.













··· AUDITORIUM

·· LIBRARY

CARREER GUIDANCE AND JOB PLACEMENT



OUTDOOR AREAS

**CANTEEN** 

PUBLICATIONS SERVICE

> SERENITY ROOM

## INTERNATIONAL MOBILITY

EUSS participates in numerous international mobility programmes, which provide all the members of our university

community (students, faculty, as well as administrative and service staff) with the opportunity to undergo training stays

**GOALS PROGRAMMES** 

To get to know the culture and customs of a society

university environments and teaching methodologies.



all over the world.

#### **UNIVERSITY-BUSINESS AND TEACHING INNOVATION**

Dissemination of job offers, and inter-

companies.

Observatory.

The University-Business and Teaching Innovation Area works to bring students closer to companies. To achieve this, it organizes annual conferences aimed at labour market and professional orientation seminars:

#### **ENTREPRENEURSHIP CULTURE DAY**

A space to bring together experienced entrepreneurs, services and resources, and EUSS students.

A great opportunity for students to get to know different professional scenarios, get an up-to-date view and real insight into the projects, talk to managers from different business and human resources areas, as well as deliver CVs to the participating companies.

'ACTIVA'T I ACTUA' DAY

#### 'PRE-OCUPA'T' DAY

A meeting point for companies from the industrial and technological sectors with our students, and alumni. Participating companies present their projects, as well as discuss the ideal professional profile they are interested in, in terms of possible professional opportunities.

#### **CAREER GUIDANCE SEMINARS**

These seminars are offered within the framework of the Professional Internship course. It is meant to provide tools and resources to EUSS students in the job search for it to be successful with the ultimate goal of achieving professional integration. We offer seminars about how to start the job search, apart from how to successfully face the job interview.

## **ALUMNI**

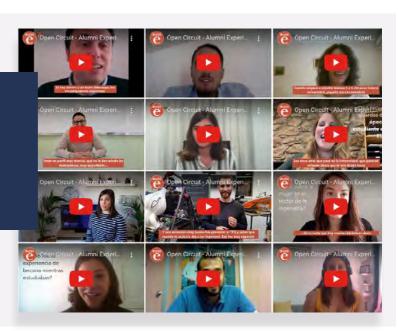


of our school, operating under the motto "Praeit ac ment aims to accompany and provide mutual su- Alumnae of Don Bosco (AAADB). pport throughout their post-university life, thus consolidating their lasting connection not only with the institution, but also with each other.

Alumni EUSS is a service aimed at the graduates After the graduation ceremony, the graduates officially become alumni of EUSS and Don Bosco's, Tuetur" ("Protect and accompany"). This commit-joining the AlumniEUSS family plus the Alumni and

#### Would you like to know what some of our alumni have to say about us?

What was their time at EUSS like, where are they currently working, etc.? Have a look at the Open Circuit Alumni Experiences section.





## RESEARCH

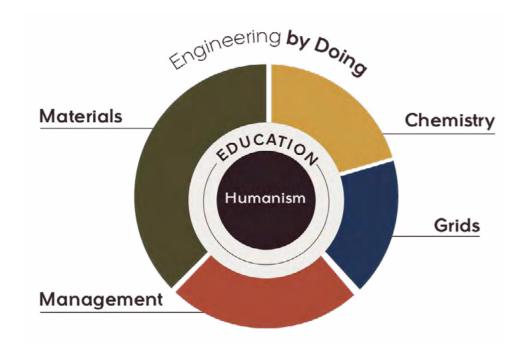
#### **EUSS MOTORSPORT**

#### A single-seater entirely created by students

Research is a basic pillar in the social and technological development of our society. Committed to this idea, EUSS promotes research, technology transfer, and dissemination of generated knowledge.

The Research Group at EUSS currently includes 25 members who combine both research and teaching. This task is largely carried out on the basis of external collaboration with other local and international universities, research centers, and companies.

Research at EUSS revolves around five main areas: Materials, Chemistry, Grids, Management and Humanism-Education. Research in this latter field transversely involves all the university departments and teachers, being intimately linked to the innovation in education applied at EUSS, and its learning philosophy "Engineering by Doing".



#### HUMANISM

Philosophy and hermeneutics of faith, philosophy applied to organisations.

#### **EDUCATION**

Active learning in Engineering Education, Education and Activism towards Sustainable Development,
Epistemology and Didactics, ICT and Graphic Expression.

#### **MATERIALS**

Multifunctional Molecular Magnetism

Superconducting Coated Conductors

Supercapacitors

#### CHEMISTRY

FIOCESS COITIC

Chemometrics

Vehicle Emissions

#### **GRIDS**

Smart Grids
Simulation by agents

#### **MANAGEMENT**

OWA Methods for Decision Making

Smoothing Methods

Blockchain Technology and Token Economy

Public Sector Economy

Automotive engineering is one of the most attractive career opportunities for EUSS students. With the aim of encouraging these people in this discipline, Formula Student was born, an international university competition that brings together more than 800 university teams made up of future engineers to design, build, pilot and plan the production of a formula-style racing car to compete against other schools around the world.

In 2017, a group of students from our school joined this challenge applying the Engineering by Doing philosophy. This is how the EUSS MotorSport team was born. In order to achieve this goal, it was necessary to form a multidisciplinary team who could put into practice all the knowledge acquired during their studies in the specialties of Mechanics, Electronics, Automotive, Renewable Energies and Energy Efficiency, as well as Industrial Organization.

The Formula Student competition is divided into 3 categories, according to the type of vehicle: combustion, electric and autonomous.

Nowadays, the EUSS Motorsport team is competing in the electric vehicle category, where the maximum score a team can get is 1.000 points. Vehicles and teams are evaluated in different tests. The scoring in this category is as follows:



#### STATIC TESTING

#### **DYNAMIC TESTING**



## WHERE IS EUSS LOCATED?

#### Meet Barcelona: Visit and love it

Step into the city's districts and neighbourhoods, and enjoy its attractions. Make the most of all Barcelona has to offer: urban areas, cultural and architectural heritage, natural areas, leisure, study centres, museums, recommendations on where to go shopping or practice sports, and much more.

#### Points of interest in the city

Discover the 10 unmissable sights in Barcelona.



#### Sagrada Familia

Designed by the Catalan architect Antoni Gaudí, the Sagrada Família is a beautiful basilica in the center of Barcelona and one of its most visited landmarks.



#### **Park Güell**

It was built between 1900 and 1914 by the famous Spanish architect Antoni Gaudí. Find out opening hours, prices and what to see.



#### Museu Nacional d'Art de Catalunya

Housed in Montjuïc Castle, the Museo Nacional d'Art de Catalunya (National Museum of Catalan visual art) is one of the main museums in Barcelona.



#### **Spotify Camp Nou**

The FC Barcelona Football Stadium and its museum have become one of the most visited attractions in Spain. Find out ticket price and more.



#### Museu Picasso

The Museo Picasso (Picasso Museum) in Barcelona features 3,500 works of art by Pablo Picasso. It is the world's largest collection of the Cubist artwork.



#### Casa Batlló

Commissioned by Josep Batlló and designed by Gaudí, It was constructed between 1904 and 1906 and is a must-see in Barcelona.



#### La Pedrera

Casa Milà, known as La Pedrera due to its stony appearance, is a surprising modernist building designed by Gaudí between 1906 and 1912.



#### La Rambla

La Rambla (Las Ramblas) is an extremely famous street in central Barcelona. It is packed with terraces, various artistic shows, mimes and flower stands.



#### Palau de la Música Catalana in Barcelona

The Palau de la Música Catalana (Music Palace) is one of the most important concert halls in the world and one of the best examples of Catalan Modernism.



#### Mercat de la Boqueria

The Mercat de la Boqueria (Boqueria Market) is officially known as Mercat de San Josep. It is one of the most visited spots of Barcelona. Find out why.

## Discover the most representative NEIGHBORHOODS AND AREAS OF BARCELONA



#### La Barceloneta

The Barceloneta is one of the most dynamic and popular neighborhoods in Barcelona. It is full of magic and history. Discover the best things to see and do.



#### **Montjuïc**

Montjuïc is a hill in Barcelona and one of the most wonderful parts of the city. It has superb views over Barcelona, houses, good museums and a park.



#### La Rambla

La Rambla (Las Ramblas) is an extremely famous street in central Barcelona. It is packed with terraces, various artistic shows, mimes and flower stands.



#### **Gothic Ouarter in Barcelona**

Located in the heart of Barcelona, in the Ciutat Vella district, the Gothic Quarter is the oldest and most striking parts of Barcelona.



#### Port Olímpic Barcelona

The Port Olímpic in Barcelona is one of the most beautiful districts of the city. It was built for the 1992 Summer Olympics.



#### The Eixample

It's the most iconic district in Barcelona. Most of the famous Gaudí buildings are located there. Its gridlike layout is the symbol of the sunny and modern Barcelona we know today.



#### Gràcia

Charismatic, cosmopolitan and bohemian. Gràcia has a vibrant community life. The district still preserves the feel of the village that it once was.



#### Sarrià-Sant Gervasi

Sarrià - Sant Gervasi, a gateway to Collserola Nature Park including Tibidabo, features public parks, mansions, and village-like areas. EEUSS is located in Sarrià.

## THE 3 MOST FAMOUS SQUARES:



#### Plaça Catalunya

Plaça Catalunya is one of the most visited places in Barcelona and one of the largest squares in Spain. It measures 30,000 square meters.



#### Plaça Sant Jaume

Plaça Sant Jaume has been the administrative and historic center in Barcelona since ancient times. It houses the city hall and the Generalitat.



#### Plaça d'Espanya

Plaça d'Espanya (Plaza de España in Spanish) is one of the main squares in Barcelona. It was built for the 1929 International Exhibition.

#### **Culture Heritage**

Barcelona boasts an immense cultural heritage. In the city you can find one-hundred-year-old theatres dedicated to opera and music such as the **Gran Teatre del Liceu** and the **Modernista Palau de la Música Catalana**. There are also excellent and modern auditoria as well as major institutions devoted to the plastic arts, centres catering for the most avant-garde art forms, venues for scenic innovation, theatres staging the classics and art galleries and spaces devoted to heritage art.

#### Charming corners: Hidden Barcelona

Hidden away off the beaten tourist tracks, down little side streets, there are an infinite number of truly Barcelona recesses that people often know nothing about, even those who live here. Squares, cloisters, alleyways, walks and paths that belong to another era and evoke a Barcelona that, at first sight, appears not to exist: one that maintains the essence of the town or village that every city neighbourhood used to be.

#### **MEET CATALONIA** A LAND THAT INVITES YOU TO DREAM

#### Val d'Aran

Val d'Aran is a hidden treasure in the middle of the Catalan Pyrenees. A place where the wildest and most exuberant nature merges. A place where you can practice adventure sports you are passionate about, and get lost in ancient landscapes.



#### **Pirineus**

Delve into the wildest nature. Breathe the clean air of the mountains and their valleys, admire the most spectacular landscapes.



#### Terres de Lleida

Terres de Lleida has a lot to see and much more to do. Discover the agricultural essence of an intensely coloured landscape: blue skies, green forests, golden fields, and brightly blooming fruit trees. A place full of history that invites you to live it with all your senses.



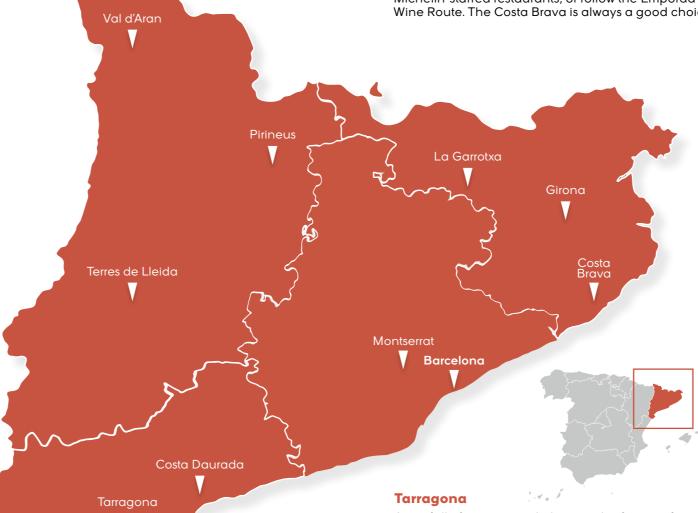
Terres de l'Ebr

#### Terres de l'Ebre

Terres de l'Ebre is an explosion of colours and life, where nature coexists with culture. Where beaches and mountains are among unique landscapes. A land of contrasts, of rural character, and an exciting history. With the Ebre river as the protagonist and witness of a story intertwined with the land. Come and be captivated by the unique charm of Terres de l'Ebre!

#### Costa Brava

Coves of deep blue sea, beaches of golden sand, natural parks, medieval towns, the works of Salvador Dalí... This is the tempting combination of Girona's Costa Brava. This is the area of Catalonia from Blanes to Portbou with fascinating cities like Girona and old fishing villages with little whitewashed houses like Cadaqués. Undoubtedly a great place to enjoy the pleasant climate of the Mediterranean, visit some of its Michelin-starred restaurants, or follow the Empordà D.O. Wine Route. The Costa Brava is always a good choice.



A city full of surprises with thousands of years of civilization just waiting to be discovered. Dine under the vaults of the Roman circus, get lost in the charming, narrow alleys of the historic quarter, where the essence of the medieval city remains untouched by time, or enjoy a glass of local vermouth surrounded by over 2,000 years of history. This is the true World Heritage of Tarragona! It is a heritage made up of monuments that transcend time, of spots that take us back to Roman, medieval, modern and modernist eras.



#### La Garrotxa

Forty volcanic cones and more than 20 lava casts welcome you to La Garrotxa, north of Girona. This landscape, the best example of volcanic land formation on the peninsular, is only two hours by car from Barcelona. Nature lovers will be thrilled at unforgettable experiences amongst the forests and volcanoes that typify this region.



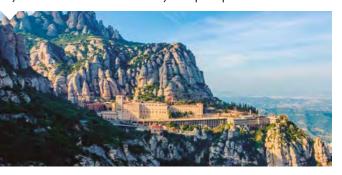
#### Girona

This charming town is located in the northeast of Catalonia. Girona's Old Town is a must-see. The narrow streets and colorful buildings will transport you back in time. You can visit the Cathedral of Girona, which dates back to the 11th century, and the Jewish Quarter, which is one of the best-preserved in Europe.



#### **Montserrat**

Montserrat mountain and its monastery have always been an important symbol of Catalonia's history, spiritual beliefs and culture, and is also the home of the religious figure of the Mare de Déu de Montserrat, the patron saint of Catalonia. The mountain, scene of numerous legends, has an interesting configuration: it is an immense mass of rock which stands out against the sky with a series of unusually-shaped peaks.



#### Costa Daurada

Costa Daurada, a land of Mediterranean character with sandy beaches, vineyards, and olive trees, invites you to experience its mixture of tradition and modernity, a rich historical heritage full of joy.



### EXPERIENCE THE CULTURE IN CATALONIA

The cultural possibilities of Catalonia are extraordinary. From its historical background, an inexhaustible cultural source is born. Festivals and parties will allow you to enjoy traditions as unique as the castellers (the human towers), the giants or the correfocs.

A great diversity of festive events, elements and acts are part of the Catalan festive heritage.

Each town and city has its own festivals, which reinforce cohesion and the sense of belonging, celebrations all with their own characteristics. To enter the richness and plurality of the festivities of Catalonia is to discover an inexhaustible intangible cultural heritage, full of tradition, values in constant transformation and with a lot of citizen, associative and institutional involvement and participation.



#### Cuisine with identity

Catalonia can guarantee a top quality gastronomic experience. What's on offer is a good example of the marvels of **Mediterranean cuisine** from Catalonia, a marriage between mountain and sea, meat and fish. But instead of resting on the laurels of tradition, the Catalan cuisine has evolved and, thanks to its particular innovations, has become one of the country's best calling cards as far as the world is concerned.

Catalan gastronomy springs from the agricultural and livestock activity of the territory with local products. It is respectful with the landscape and the environment: it is sustainable and it is committed to responsible consumption. Agroecology is increasingly present in the territory, and you can see this through the evolution and perfection of wine and oil culture, two of the star products of the Catalan and Mediterranean cuisine.

Wine and oil have become true cultural symbols that go beyond gastronomy. Through them, you can find your ideal experience in Catalonia: turn a meal into a ritual, discover the modernist architecture of a few wineries or the centuries of history of some mills, walk through fields of vineyards and olive trees, and enjoy the landscapes, or attend fairs and festivals. Two products that have helped creating a unique experience thanks to both the wine and the oil tourism routes.





#### Catalonia is sport

In Catalonia, you can enjoy a wide range of sports, either individually or in a team. Everyone can enjoy a sporting stay in the territory and take advantage of the excellent facilities at their disposal, some of which considered world-class.

Catalonia is a country that delights in sport, that is, physical activity is part of the daily life of its inhabitants. Every town and city has spaces dedicated to sports and there are many popular disciplines. You will find football fields, basketball or handball halls, swimming pools or athletics tracks.

In addition to this, we cannot forget a geographical situation and a climate that make Catalonia a first-class sports tourism destination all year round. From winter sports in the ski resorts of the Pyrenees to water sports such as diving or snorkelling. The mountains and rivers of the territory become an ideal space for the practice of disciplines such as hiking or climbing, rowing or canoeing. The coastline also offers countless options, from sailing in sailing boats to sand sports on the immense beaches on our coast.

Catalonia also offers you the possibility to enjoy sport as a spectator. Many major international competitions have passed through our territory in recent years.





#### Accommodation

EUSS is located in the district of Sarrià-Sant Gervasi. If you live far from Barcelona, in this part of town you will find several student residences, but you also have the possibility of renting an apartment or room, or live in the UAB Vila Universitària.

**More information:** https://www.euss.cat/en/bachelors-masters-degrees/mobility/accommodation





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