Universitat de Lleida

Bachelor's degree self-assessment report

AQU Catalunya

ASIIN (EUR-ACE®, Euro-Inf®)

2021

Polytechnic School - UdL

Approval date	Approved by
07 / 09 / 2021	Internal Evaluation Committee
08 / 09 / 2021	University Evaluation Committee

Index

Acronyms and Initials

	Significat	**Significado**	**Meaning**
ACUP	Associació Catalana d'Universitats Públiques	Asociación Catalana de Universidades Públicas	Catalan Association of Public Universities
ADE	Grau en Administració i Direcció d'Empreses	Grado en Administración y Dirección de Empresas	Bachelor's degree in Business Administration and Management
AQU	Agència per a la Qualitat del Sistema Universitari de Catalunya	Agencia para la Calidad del Sistema Universitario de Cataluña	Catalan University Quality Assurance Agency
BOE	Butlletí Oficial de l'Estat	Boletín Oficial del Estado	Official State Gazette
CAE	Comité d'Avaluació Extern	Comité de Evaluación Externo	External Evaluation Committee
CAI	Comité d'Avaluació Intern	Comité de Evaluación Interno	Internal Evaluation Committee
CAU	Comissió d'Avaluació de la Universitat	Comisión de Evaluación de la Universidad	University Evaluation Committee
CFGS	Cicle Formatiu de Grau Superior	Ciclo Formativo de Grado Superior	Higher education training cycle
CV	Campus virtual	Campus Virtual	Virtual Campus
EPS	Escola Politècnica Superior	Escuela Politécnica Superior	Polytechnic School
ETSEA	Escola Tècnica Superior d'Enginyeria Agrària	Escuela Técnica Superior de Ingeniería Agraria	School of Agrifood and Forestry Science and Engineering
GATE	Grau en Arquitectura Tècnica i Edificació	Grado en Arquitectura Técnica y Edificación	Bachelor's degree in Architectural Technology and Building Construction
GEEIA	Grau en Enginyeria Electrònica Industrial i Automàtica	Grado en Ingeniería Electrónica Industrial y Automática	Bachelor's degree in Automation and Industrial Electronic Engineering
GEES	Grau en Enginyeria de l'Energia i Sostenibilitat	Grado en Ingeniería de la Energía y Sostenibilidad	Bachelor's degree in Energy and Sustainability Engineering
GEI	Grau en Enginyeria Informàtica	Grado en Ingeniería Informática	Bachelor's degree in Computer Engineering
GEM	Grau en Enginyeria Mecànica	Grado en Ingeniería Mecánica	Bachelor's degree in Mechanical Engineering
HIDA	Hores impartides de docència a l'aula	Horas impartidas de docencia en el aula	Teaching hours taught in the classroom
INSPIRES	Institut Politècnic d'Innovació i Recerca en Sostenibilitat	Instituto Politècnico de Innovación e Investigación en Sostenibilidad	Polytechnic Institute of Research and Innovation in Sustainability
MEIND	Màster en Enginyeria Industrial	Máster en Ingeniería Industrial	Master's degree in Industrial Engineering
MEINF	Màster en Enginyeria Informàtica	Máster en Ingeniería Informática	Master's degree in Informatics Engineering
PAS	Personal d'Administració i Serveis	Personal de Administración y Servicios	Administration and Services Personnel
PAU	Proves d'Accès a la Universitat	Pruebas de Acceso a la Universidad	University Entrance Exams
PDI	Personal Docent i Investigador	Personal Docente e Investigador	Teaching and Research Staff
PTE	Pràctiques Tutelades en Empresa	Prácticas Tuteladas en Empresa	Internship
RUCT	Registre d'Universitats, Centres i Títols	Registro de Universidades, Centros y Títulos	Registry of Universities, Centres and Degrees
SGIQ	Sistema de Garantia Interna de la Qualitat	Sistema de Garantía interna de la Calidad	Internal Quality Assurance System

	Significat	**Significado**	**Meaning**
EPI	Equip de protecció individual	Equipo de protección individual	Personal Protective Equipment
CIC	Consell Interuniversitari de Catalunya	Consejo Interuniversitario de Cataluña	Interuniversity Council of Catalonia
EEES	Espai Europeu d'Educació Superior	Espacio Europeo de Educación Superior	European Higher Education Area
MECES	Marc Espanyol de Qualificacions per a l'Educació Superior	Marco Español de Cualificaciones para la Educación Superior	Spanish Higher Education Qualifications Framework
TFG	Treball de Fi de Grau	Trabajo de Fin de Grado	Bachelor's degree thesis
TFM	Treball de Fi de Màster	Trabajo de Fin de Màster	Master's degree thesis

A) About the Accreditation Procedure

This report on the accreditation of the bachelor's degrees in Computer Engineering, Mechanical Engineering, Automatic Industrial Electronic Engineering and Energy Engineering and Sustainability of the Polytechnic School was drafted during the months of June and July of 2021. This report is part of the Internal Phase of the EPS accreditation process and consists of the following stages:

- Constitution of the Internal Evaluation Committee (CAI)
- Preparation of the Accreditation report and collection of evidence.
- Publication of the report.
- Report approvals.
- Submission of the report to AQU Cataluña-ASIIN and access to the evidence.
- Preparation of the students' achievements corresponding to the subjects selected by the External Evaluation Committee (CAE).

This process begun on 06/02/2021 with a meeting to present the accreditation process, which was attended by the Centre's Management and the coordinators involved (0_01_EPS_Reunió accitacions 2021.pdf), where the guidelines for the drafting of the self-report and the work schedule were established (0_02_Cronograma.pdf).

On 06/17/2021, the date on which the Study Committee that acts as the School Quality Assurance Committee met, the Internal Evaluation Committee (CAI) of the accreditation process was set up (0_03_EPS_Acta 2021-06-17. pdf). It should be noted that the composition of the CAI guarantees the participation of all university groups (PDI, PAS and students) in the assessment of training programmes.

Regarding the accreditation process, specific meetings were been held with the teaching staff, the students and the PAS to complete the Accreditation Report. Likewise, different university services were contacted (Library and Documentation Service, International Relations Office, Institute of Continuing Education and Training Sciences, etc.) in order to obtain specific information. Once all the information was collected, it was presented jointly, in the form of a report, to all members of the CAI. The evidence (0_04_EPS_Conv_CAI.pdf) contains the minutes of the CAI meeting where the draft report was presented prior to public exposure. It should be noted that all groups (PDI, PAS and students) are represented on this committee. Once the comments, evaluations and corrections of the committee were incorporated, a complete version was prepared, which was publicly exposed (0_05_EPS_ExPublica.pdf). Comments from all EPS groups have been received, and have been included in the report, which contains the supporting evidence.

As a consequence of the overall process, this self-assessment report has been drafted collaboratively. It can be seen that the sections regarding each degree have been drafted by

each programme coordinator. This collaborative process reduces the uniformity among the sections, but enriches the contributions within the framework of each programme.

This report was initially written in Spanish. An automatic translation into English was subsequently carried out, followed by a linguistic revision.

Some of the evidence presented, such as samples of student work, has also been translated into English with automatic translation.

General data

Website of the Higher Education Institution	University of Lleida (UdL) http://www.eps.udl.cat/ca/estudis/estudis-de-grau/ http://udl.cat/ca/en/studies/studies_bycentres/
Faculty / Department offering the Programme	EPS - Escola Politécnica Superior (Polytechnic School)

Seals applied for

Name of the degree programme (in original language)	**(Official) English translation of the name**	**Labels applied for**[1]	**Previous accreditation (issuing agency, validity)**	**Involved Technical Committees (TC)**[2] (will be completed by ASIIN)
Grado en Ingeniería Informática (GEI)	Bachelor's degree in Computer Engineering	AQU, ASIIN, Euro-Inf®	AQU, 04.28.2022 ASIIN Euro-Inf, 30.09.2021	
Grado en Ingeniería Mecánica (GEM)	Bachelor's degree in Mechanical Engineering	AQU, ASIIN, EUR-ACE®	AQU, 04.28.2022 ASIIN Eur-ACE, 30.09.2021	
Grado en Ingeniería Electrónica Industrial y Automática (GEEIA)	Bachelor's degree in Automation and Industrial Electronic Engineering	AQU, ASIIN, EUR-ACE®	AQU, 04.28.2022 ASIIN Eur-ACE, 30.09.2021	
Grado en Ingeniería de la Energía y Sostenibilidad (GEES)	Bachelor's degree in Energy and Sustainability Engineering	AQU, ASIIN, EUR-ACE®	AQU 06.23.2023 -	

B) Characteristics of the Degree Programme/s

a) Name	Final degree (original / English translation)	b) Areas of Specialization	c) Corresponding level of EQF[3]	d) Mode of Study	e) Double / Joint Degree	f) Duration	g) Credit points / unit	h) Intake rhythm & First time of offer
Degree in Computer Engineering (GEI)	Ingeniero Técnico en Informática / Bachelor's degree in Computer Engineering	. Information technology . Information systems . Computing . Computer Engineering . Software Engineering	Level 6	Full time / part time	-	8 semesters	240 ECTS	70 2010-11
Degree in Mechanical Engineering (GEM)	Ingeniero Técnico Industrial / Bachelor's degree in Mechanical Engineering		Level 6	Full time / part time	-	8 semesters	240 ECTS	50 2010-11
Degree in Automatic Industrial Electronic Engineering (GEEIA)	Ingeniero Técnico Industrial / Bachelor's degree in Automation and Industrial Electronic Engineering		Level 6	Full time / part time	-	8 semesters	240 ECTS	50 2010-11
Degree in Energy Engineering and Sustainability	Bachelor's degree in Energy and Sustainability	. Environmental mitigation . Energy facilities . Sustainability	Level 6	Full time / part time	-	8 semesters	240 ECTS	40 2017-18

a) Name	**Final degree (original / English translation)**	**b) Areas of Specialization**	**c) Corresponding level of EQF**[3]	**d) Mode of Study**	**e) Double / Joint Degree**	**f) Duration**	**g) Credit points / unit**	**h) Intake rhythm & First time of offer**
(GEES)	Engineering	Construction						

C) Self-assessment for the ASIIN-Seal

1. The Degree Programme: Concept, content & implementation

Criterion 1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)

In Spain, Bachelor's and Master's degrees are regulated by Royal Decree RD 1393/2007, amended by RD 861/2010. Since the adaptation of the Spanish university system to the framework of the EHEA, the structure of university studies in Spain distinguishes between Bachelor's degrees (4 years of study, usually 240 ECTS) and Master's degrees (1-2 years, between 60 and 120 ECTS).

In addition, the Spanish Government establishes specific rules for the degrees of the so-called "regulated professions", as is the case of engineering. These professions have specific legislation that defines the skills that the student must acquire at the end of their studies:

Order CIN/351/2009. establishing the requirements for the verification of official university degrees that enable exercising of the profession of Industrial Technical Engineer. This is the case of the GEM and GEEIA Bachelor's degrees. When designing the GEES curriculum, the indications of this order were followed. In this way, the content of the first and second years constitutes a common core between the three Bachelor's degrees. This allows the student to make the decision to choose one of the three degrees when s/he has more knowledge.

Order CIN/311/2009 establishing the requirements for the verification of official university degrees that enable exercising the profession of Industrial Engineer. This is the case of the MEInd (Master's degree in Industrial Engineering).

Resolution of June 8, 2009 establishing recommendations for official degrees in the fields of Computer Engineering (MEInf. Master's degree in Computer Engineering) and Computer Technical Engineering (GEI)

As indicated in the previous evaluation, the Polytechnic School began to work on adapting its teachings to the EHEA in 2007. To carry out this adaptation, it was necessary to detect the needs of all the parties involved, which required the participation of both social agents: companies, public and private institutions and Alumni (external agents) from each engineering sector, as well as from the different university groups, represented by the teaching staff, the Administration and Services Personnel (PAS) and the students (internal agents). It should be noted that in the search for external agents, the Social Council of the UdL played a crucial role, organizing different meetings with external agents.

This procedure followed the Master Plan for Teaching at the University of Lleida, approved by the University Governing Council on June 10, 2007. Likewise, given the complexity of the process of adaptation of the UdL degrees, the Teaching Planning Unit was created. The purpose of this Unit was to give support to the university community to carry out the adaptation of the UdL to the new EHEA framework, in accordance with current regulations and the policy of the Vice-Rectorate for Teaching of the UdL.

The first step in this procedure consisted of deciding which undergraduate degrees should be implemented in the EPS. To this end, a set of meetings/encounters with the different agents were set up in order to detect the training, economic and social needs of our environment. The internal agents prepared a proposal based on the availability of resources at the relevant Centre and the departments, which was submitted to the external agents. This proposal consisted of the vertical deployment of the EPS with the aim of implementing long-term first-degree and second-cycle degrees (Master's degrees) in the three branches of engineering at the School (IT, Industrial and Building). Through a meeting for each engineering sector with external agents, this proposal was agreed upon and a major challenge was achieved, such as the support of society for the vertical development model proposed by the School.

All the evidence related to the process of preparing the study plans is listed by the code 1_07_EPS_Stakeholders. The evidence presented is the composition of the committees for the preparation of the study plans, the minutes of the School Board, the agreements of the academic associations and decrees with requirements for the design of the study plans, the working documents prepared by the Ministry of Education and the Guidelines of the University of Lleida, the White Papers of the different degrees, the surveys carried out on social agents concerning the design of competences, the results of these surveys and the list of social agents who participated in the process.

The Degree Map project proposed replacing each of the existing technical engineering degree with a new degree. This proposal culminated in the approval of the Degree Map of the Polytechnic School:

• Degree in Computer Engineering

• Degree in Building Engineering

• Degree in Electronic, Industrial and Automatic Engineering

• Degree in Mechanical Engineering

Once the reports of the degrees were finalized, the School proceeded to start the process of implementing the two master's degrees currently taught at the School: Master's degree in Industrial Engineering and Master's degree in Computer Engineering.

For the design of the study plans, three phases were established with the participation of various agents:

- Definition of competences: Internal and external agents
- Preparation and approval of study plans: Internal agents prepare the proposal, consult external agents and they agree. Approval will be granted by the governing bodies of the School: Study Committees and the Centre and University Board: Governing Council.
- Preparation and approval of reports: The reports will be prepared by the management team of the Centre and will be approved by the governing bodies of the School: Study Committee and Centre Board.

To define the competences of each degree, the following were considered:

1. The competences defined in the royal decrees regulating the engineering professions.

2. The transversal competences that each University and School may define. As a result of the collaboration of the different groups, the list of Transversal Competences of the Polytechnic School was drawn up. This list would be the reference for the preparation of future study plans for bachelor's and master's degrees and would complement the strategic competences of the University of Lleida and those specific to each degree. The strategic competences of the EPS were approved by the Plenary Committee of the Degrees in Industrial Engineering, Computer Engineering and Building Engineering on 16 June 2008.

It must be said that in the three fields of study, Industrial, Computer Science and Technical Architecture, monitoring committees were established, basically channelled through professional associations that meet with the main objective of monitoring the development of the degrees, as well as how to generate initiatives that improve them. As a result of these committees, the Awards for the Best Academic Record and the Award for the Best Bachelor's Degree and Master's Degree Final Projects of each degree are awarded.

The implementation of the Master's degree in Industrial Engineering was the culmination of a very old demand of the professional sector of Industrial Engineering in our environment. It should be noted that until 2010, the start date of these new master's degree studies, students from Lleida who wanted to continue their studies in Industrial Engineering had to travel to Barcelona, Terrassa or Zaragoza to study the second cycle, which caused a great lack of qualified professionals in the Industrial Engineering sector. This caused the professional sector, channelled by the Association of Industrial Engineers of Catalonia (Lleida area), to firmly support the implementation of these studies and actively participate both in the preparation of the study plan, and in the subsequent implementation process. regarding the Master's Degree in Computer Engineering, work began a year later, given that the School already taught Second-cycle Computer Engineering studies. Following the same criteria used with the Master's Degree in Industrial Engineering, a committee was set up in which a representative of the Association of Information Technology Companies of Lleida (AETI) participated, considering the strong roots that this association has in Lleida and that it represents the vast majority of companies in the city's ICT sector.

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

The curriculum of the Bachelor's Degree in Computer Engineering complies with the resolution of 8 June2009 issued by the Secretaría General de Universidades, which establishes recommendations for the proposal by universities of reports to apply for official degrees in the field of Computer Engineering, (1_00_ResolInformatica.pdf) and by Royal Decree 1393/2007, of 29 October 2007, which establishes the organization of official university education (1_00_RD1393-2007.pdf). The curriculum deploys three of the majors defined in the royal decree: Computing, Software Engineering and Information Technologies. In addition, the degree was accredited during the 2015-16 academic year, obtaining the distinction of Excellence. All of the above validates and guarantees that the study plan and the structure of the curriculum are coherent with the profile of competences and with the objectives of the degree.

In recent years, the following actions to improve the degree have been carried out:

- An International Minor known as Global Acting in ICT has been implemented with a partnership of five European universities, coordinated by the University of Fontys (Netherlands). The Minor has a workload of 30 ECTS and is carried out within the Major in Information Technologies of the degree.
- The number of teaching groups has been increased. During recent years there has been an increase in enrolment (ref. Indicator winddat). This, added to the places available for students of the double degree GEI + ADE, caused the teaching classrooms to be overwhelmed. For this reason, the number of teaching groups was increased.
- During the COVID-19 period, teaching has been conducted using a blended learning model, that is, part of the teaching was conducted online (distance), and the other part was conducted face-to-face, so the professors have adapted their classes and materials to this new modality (we elaborate on this in criterion 2.3 Methodology).
- The deployment of online lectures and assessments during the COVID-19 period has been closely monitored. The coordinator has kept track of any requirement, incidents or group confinements, by leading the actions to be taken. There have also been scheduled meetings with teachers and students (two per semester), and a discussion forum has been activated on the virtual campus.
- During the COVID-19 period, we have tried, whenever possible, to prioritize the face-to-face laboratory classes particularly for first and second year students. This caused the further increase of the laboratory groups in order to meet the health restrictions.

Different activities have been driven to encourage the exchange of experiences and cooperation between teachers. These activities are really important to promote a review of the knowledge, improve the methodologies, and adapt these methodologies to the students' learning model. These activities have also resulted in the proposal of new training courses for teachers as well as cooperation activities between teachers in subjects such as the introduction to programming, transversal to many of the degrees in the first years, or project management in the last academic year of the major in Software Engineering.

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING

The structure of the Bachelor's Degree in Mechanical Engineering complies with the current regulatory guidelines at state level. The number of European credits (ECTS) of the degree, 240, is defined in article 5 of Royal Decree 1393/2007. The organization and type of credits follow Order CIN/351/2009, connected with RD 1393/2007. This order specifies that the qualifying degrees must have minimums, which are: 60 ECTS from the basic training block, 60 ECTS from the block common to the industrial branch, 48 ECTS with the speciality block (in this case mechanical) and 12 ECTS that correspond to the degree final project. The 60 credits that remain from the 180 specified up to 240 are defined by the centre that plans the degree and are verified by the relevant regulatory bodies at regional and state level. The 240 ECTS are organized into four academic courses of 60 ECTS each. It is essential to consider that each of the blocks, and the different subjects included in the degree report, must cover all the necessary competences and is regulated in the aforementioned Order CIN/351/2009.
Under these conditions, the Degree in Mechanical Engineering, in its report approved in the first instance by the Council of Universities in July 2010 and published in the Official State

Gazette, is structured as shown in the table below. The different supervision processes at regional and state level to which the report and the included curriculum of the Bachelor's Degree in Mechanical Engineering have been subjected fully guarantee that the objectives and learning outcomes are appropriate and relevant.

Designation Module	**ECTS**
Basic training.	66
Common Training for the Industrial branch.	60
Specific technology training: Mechanics.	60
Elective Training.	24
In-Company Internships.	15
End-of-Degree Project.	15

Concerning elective training, subjects can be selected from the following specializations: Mechatronics, Energy Facilities or Sustainable Construction.

As can be seen, and it could not be otherwise, the structure of the Bachelor's Degree in Mechanical Engineering scrupulously complies with the provisions of RD 1393/2007 and Order CIN/351/2009.
We would stress that the study plan was agreed upon and developed collaboratively with leading entities in the industrial field, such as the Associations of Industrial Engineers and Industrial Technical Engineers and different Federations and highly relevant companies in Lleida.
Regarding the learning and competences outcomes associated with the different subjects of the degree, the degree report, in its last version of 2021, describes them in fully and up to date and adjusts to Order CIN/351/2009 so that graduates have acquired the necessary skills to practise the regulated profession of Industrial Technical Engineer, mechanical speciality.

BACHELOR'S DEGREE IN ELECTRONIC, INDUSTRIAL AND AUTOMATIC ENGINEERING

The objectives, competences and learning outcomes of the Bachelor's Degree in Industrial Electronic and Automatic Engineering (GEEIA) are set out in the degree report reviewed periodically and verified by external evaluation committees. Also, as it is an approved official degree, its structure can be consulted in the register of Universities, Centres and Degrees (RUCT) (https://www.educacion.gob.es/ruct/home) of the Ministry of Education. In addition, to facilitate access to this information, it is also included on the degree website, regularly updated and accessible by students, staff and any other interested person (http://www.grauelectronicaiautomatica.udl.cat/en/).

The design of the degree respects the guidelines established in Royal Decree 1393/2007, of 29 October, which establishes the organization of official university education, and those of ORDER CIN/351/2009, of 9 February, which establishes the requirements for the verification of official university degrees that entitle exercising the profession of Industrial Technical Engineer.

For the implementation of the objectives and learning outcomes of the degree, an internal committee approved by the School Centre Board (EPS) was set up, which took place on 20

December 2007 (Minutes No. 61). This committee was represented by all the groups involved in the university together with the participation of different social agents representing the social and economic environment of the sector, associations, companies and professionals, which are listed in chapter 2.4 of the degree report.

The objectives were defined so that in addition to acquiring knowledge and knowing how to apply it, students acquire professional skills and abilities in accordance with the current law that regulates it. The participation of the different groups involved was key to developing a programme structure in accordance with the title of the degree, reaching the highest levels of excellence.

The objectives of the degree perfectly summarize the training profile of an industrial technical engineer specializing in electronics and automation. They are correctly founded and are represented by the competences assigned in each of the subjects that make up the learning modules. These competences have been classified into different types according to whether they are basic, transversal or specific. The teaching guides of the subjects clearly specify the objectives, competences and expected outcomes. Their information is updated and synchronized according to the degree report, likewise, they are periodically reviewed at the beginning and end of each academic year.

The objectives and learning outcomes that are specified in the degree, are feasible and fully coincide in their actual implementation. In addition, they are in accordance with the learning criteria described in the respective Subject-Specific Criteria ASIIN (SSC), and guarantee the capacities to practise in professional activities related to the degree.

BACHELOR'S DEGREE IN ENERGY AND SUSTAINABILITY ENGINEERING

The objectives and learning outcomes of the Bachelor's Degree in Energy Engineering and Sustainability (GEES) are included in the degree report, positively verified by Resolution of the General Secretariat of the University Coordination Council on 06/23/2017. This guarantees the consistency of the learning objectives and results with the requirements of the discipline and the educational level.

The main objectives and expected qualifications profile are summarized below, taken from the degree report, the full text of which can be consulted for further details. The general objective of the Bachelor's Degree in Energy and Sustainability Engineering is to train competent engineers in the fields of energy and sustainability. The skills acquired in the degree should allow them to carry out projects in the process of energy generation, distribution and storage, as well as projects related to efficiency and energy saving in general. The performance of projects for analysis and application of sustainability criteria, and analysis of the environmental impact in related industrial processes is also considered in the competences of the degree. Graduates will acquire basic knowledge common to the industrial branch, as well as specific knowledge regarding energy resources, thermal and fluid systems, electrical energy systems, energy storage, energy management and efficiency, and sustainability. The curriculum is methodologically organized so that students, in addition to acquiring knowledge and knowing how to apply it, can also acquire professional skills and competences.

The evidence (1_05_GEES_CompTit_SSC_ASIIN.pdf) includes the table where the

competences (basic, general, specific and transversal) associated with the degree are listed with the training objectives (knowledge and understanding, technical analysis, technical design, research, technical practice, transferable skills) that are expected to be achieved in each of them.

The qualifications profile described should allow GEES graduates to access occupations where professionals with an integrated vision of energy systems are required, with the ability to design, optimize and manage energy generation, transport, distribution, storage and production systems. These graduates must be able to design and advise public authorities and private entities on the energy policies to be implemented, applying criteria of sustainability and global efficiency. Likewise, it aims to train people capable of leading R&D&I in the energy sector.

The adaptation of the learning objectives and results to the professional environment is supported by the process followed to formulate them during the preparation of the degree report. In this sense, it is worth highlighting the priority participation of social agents in the definition of the degree, where in addition to the School's teaching staff, organizations and associations, companies and professionals, as well as international experts in the field of energy and sustainability, were included.

Criterion 1.2 Name of the degree programme

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

According to the Resolution of 8 June 2009, of the General Secretariat of Universities (BOE no. 187, of 4 August 2009) establishing recommendations in the field of computer engineering, the name of the degree in Computer Engineering is the most suitable for the studies that are taught, it is clearly associated with the competences and learning outcomes. It is recognized at national and European level and is clearly associated with the professional profiles. The non-substantial changes introduced in recent years do not modify the competences and objectives required in the degree.

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING

The name of the degree corresponds to the evolution of the previous qualification of Industrial Technical Engineer, speciality in Mechanics. The speciality of mechanics has professional attributions and is regulated in order CIN/351/2009, which establishes the requirements for the verification of official university degrees that enable exercising the profession of Industrial Technical Engineer. This order explicitly mentions, within the qualifying degrees, the one that corresponds to the specific Mechanics technology. The Bachelor's Degree in Mechanical Engineering and its corresponding report were approved by the Council of Ministers in 2010 and subsequently published in the BOE. This name is common among all state universities, with the support of the respective professional associations.
Additionally, we would comment that the name directly and intuitively corresponds to the Bachelor's Degree in Mechanical Engineering, offered in practically all European and American technical universities with similar content.

BACHELOR'S DEGREE IN ELECTRONIC, INDUSTRIAL AND AUTOMATIC ENGINEERING

The name of the degree is the most appropriate according to the training profile, structure and defined content. The name has always been in accordance with the learning outcomes and has been maintained since it was approved by the Council of Ministers on 21 February 2013 (BOE No. 45, page 14569). Subsequently, on 12 September 2013 (BOE No. 233, page 78947) the Council of Ministers verified the adequacy of the study plan to the degree. The changes made to the degree so far, none of which are major, described in Criterion 1.3 of this report, do not give rise to any type of disagreement with the initial training objectives and competences.

BACHELOR'S DEGREE IN ENERGY AND SUSTAINABILITY ENGINEERING

The Bachelor's Degree in Energy Engineering and Sustainability taught by the University of Lleida is a unique degree in Spain, and no equivalent degree is found in the Official Catalogue

of University Degrees. The degree with the closest profile among those taught in Spanish universities is the Bachelor's Degree in Energy Engineering. The profiles of the Bachelor's Degree in Renewable Energy Engineering and Energy Efficiency, as well as the Bachelor's Degree in Renewable Energy Engineering, each taught at a single university, are similar.

The name of the degree reflects its general objective: to train competent engineers in the fields of energy and sustainability. This dual aspect, energy and sustainability, is a differential aspect of the degree and corresponds to the expected learning outcomes (see Criterion 1.1) and to the type of subjects that make up the specific technology training modules and optional training. Among the 11 subjects that are part of both modules, 5 include the term energy in their name and another 4 include the terms sustainable or environmental. Beyond the terminology used, an integrated approach to energy aspects and aspects of environmental, economic and social sustainability is implemented in all subjects.

Criterion 1.3 Curriculum

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

The curriculum of the Bachelor's Degree in Computer Engineering is adjusted to the recommendations contained in the Resolution of 8 June 2009 of the General Secretariat of Universities (BOE. No. 187, of August 4, 2009), which, according to the agreement of the Council of Universities, must comply with the application reports for official degrees in the field of Computer Engineering. In this way, an adequate competence profile is guaranteed.

Since its verification, and as a result of the internal degree review process, the degree in Computer Engineering has been subject to various non-substantial modifications.

Based on the recommendations from the last evaluation, specifically those received by the ASIIN Accreditation Report, in the 2017/18 academic year the GEI degree underwent the following non-substantial modifications:

- Recommendation A3. (ASIIN 1.1, 1.3) suggests ensuring that fundamental knowledge of the theoretical principles of Computer Science should be part of the education in the early stages of the curriculum as a compulsory module, irrespective of the chosen specialization. In this sense, the subject 102062 Languages, Automata and Grammars was added as compulsory (2nd year) with 4.5 ECTS. This adaptation has produced changes, for example the subject Algorithmic and Complexity (2nd year) reduces the number of ECTS from 6 to 4.5. and Legal, Social and Professional Aspects (3rd year) reduces them from 6 to 3 ECTS. The subject Computational Models and Complexity (3rd year on the Major in Computing) reduces the number ECTS from 6 to 4.5, as part of the syllabus has been transferred to the new subject 102062. In addition, the subject Advanced Programming in Artificial Intelligence (3rd year in the Computing Major) increases the number of ECTS from 6 to 7.5.

- Following recommendation A4. (ASIIN 1.1, 1.3), the subject Web Systems and Technologies (3rd year) is reviewed, adding the methodology of PBL (Project Based Learning) and changing its name to Web Project to envision that the teaching methodology is based on project development.

- There was a review of the contents in the subject Hardware and Software Validation Systems and competence GII-C7 was eliminated for consistency with the contents of the subject. This competence is addressed within other subjects of the Computing speciality: Advanced Programming in Artificial Intelligence and Automatic Learning and Reasoning, thus guaranteeing the acquisition of the competence.

- In the Software Engineering major, co-requisites were added in the subjects: Requirements Engineering, Quality Management and Improvement, and Process Models, each is a co-requisite of the others. Thus, students must enrol in all these

subjects together, unless one of them has already been passed. The rationale is that a common project is carried out in these three subjects. The establishment of co-requisites involves the need to take out all the subjects at the same time and helps to make the implementation of a common project visible.

In the 2019/20 academic year, the GEI degree underwent the following non-substantial modification:

- Change of academic year of two subjects in the major in Information Technology: User-Centred Design (6 ECTS) went from 3rd year, 2nd semester to 4th year, 1st semester, Distributed Computing and Applications (6 ECTS) from 4th year, 1st semester to 3rd year, 2nd semester. The rationale behind this change was participation though the subject User-Centred Design in an International Major. With the aim of synchronizing the temporality of this subject with our international Partners we need to teach this subject in the 1st semester.

In the 2021/22 academic year, the GEI degree underwent the following non-substantial modification:

- In order to take a step forward in the approach to the gender perspective within the curriculum of the degree, the transversal competence CT "Apply the gender perspective to the tasks of the professional field" is explicitly incorporated in the subject Legal, Social and Professional Aspects.

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING

The study plan and the curriculum are totally coherent and adequate in terms of the competences of the degree, both following the provisions of ministerial order CIN/351/2009 that regulates study plans that enable practising the profession of Industrial Technical Engineer. As it has been included in Criterion 1.1, the degree syllabus structures the 240 ECTS into 4 academic years, which contain all the blocks set out in the aforementioned ministerial order (basic training block, common training block for the industrial branch, specific technology training block, optional training block, supervised in-company internships and the degree final project).

The Bachelor's Degree in Mechanical Engineering was evaluated in 2016 by ASIIN obtaining the EUR-ACE® "label" on 4/24/2016 without requirements. Although initially the Bachelor's Degree in Mechanical Engineering obtained the seal with requirements, it is worth mentioning that there were no specific requirements for this particular degree, but general ones common for the EPS degrees in industrial engineering. Since the last EUR-ACE® accreditation, the degree curriculum has not undergone any notable modifications, only some non-substantial changes as set out below:

Academic Year	Modification type	Description of the change	Centre committee approval date
2017-18	Non-substantial	Elimination of the registration co-requisite in the Sustainable Construction and Energy Facilities optional lines. Previously, students had to be enrolled in elective I in order to enrol in electives II and III. This co-requisite is eliminated so that students can freely enrol in any elective course offered within the blocks: Sustainable Construction and Energy Installations.	05/18/2017
2018-19	Non-substantial	Reorganization of the contents of the subject Thermal and Fluid Systems	04/05/2018
2018-19	Non-substantial	Reorganization of the contents of the subject Computer Science	04/05/2018
2018-19	Non-substantial	Modification of the name of a subject. The compulsory subject called "Production Management" was renamed "Production Organization".	04/05/2018
2018-19	Substantial	Correction of the adaptation table of ETIM the GEM The ETIM Mechanical Technology subject leads to recognition of the Manufacturing Technologies subject.	07/02/2018
2020-21	Non-substantial	1) Semester exchange of two second year subjects: Fluid Mechanics passes to AY2 S1 and Thermal Engineering I passes to AY2 S2. 2) Modification of the name of a specialization and its 3 optional subjects: Installations by Energy Facilities.	01/30/2020
2021-22	Non-substantial	Incorporation of transversal competence CT6: Apply the gender perspective to the tasks of the professional field in Section 3 of the report and the study plan in the subject: "Business Organization"	03/18/2021

As can be seen in the table above, in addition to the non-substantial modifications, one substantial one appears. However, this substantial modification does not affect in any way the running of the degree as it is an update in the recognition table between the extinguished pre-Bologna programme on Industrial Technical Engineering, mechanical specialty, to the Bachelor's Degree in Mechanical Engineering.

Non-substantial modifications, as described in the table, are totally minor, such as changing a subject name for better adaptation, rearranging the contents of a subject or exchanging two subjects from different semesters. As an example, Thermal Engineering 1 moved to the first semester and Fluid Mechanics to the second to balance the dedication and academic load of the students between the two semesters. It is worth mentioning that the non-substantial modification referred to the inclusion of competence CT6 on gender perspective in the subject Business Organization. As a result of the inclusion of the competence, the following learning outcomes have been added to the course containing the mentioned subject:

- Know how to conduct research from a gender perspective: know how to use and create qualitative and quantitative indicators, including statistical ones, to better understand gender inequalities and the differences in the needs, conditions, values and aspirations of women and men.
- Know how to approach the assigned projects and the assigned research work integrating the variables of sex and gender with relevance to the problem or issue raised.

- Consider the target customer segment (women/men) in the product/process development phase, taking into account their characteristics and needs, also paying attention to other variables such as age, race or functional diversity.

From the different improvement actions planned in the period 16/17-20/21, some important milestones reached in the degree and in the EPS are derived. One such example would be:

- The realization of a common access for students of the industrial branch (18/19).
- Deployment of the double degree in Mechanical Engineering between the UdL and the Brazilian university FACENS (19/20). This reinforced and consolidated access by Brazilian students to the EPS, enjoying a regulated framework that allows them to graduate from the UdL and, if they wish, continue with the master's degree in Industrial Engineering. At the same time, it allows EPS students (from the third year onwards), taking the subjects planned for an academic year, to earn the degree in Engenharia Mecânica by the Brazilian University, expanding their job opportunities in Latin America and in Portuguese-speaking countries.
- Adaptation of the teaching periods of 'zero' courses to the most suitable dates so that newly enrolled students can take it with the greatest ease and confidence.
- A double degree was designed: the Bachelor's Degree in Mechanical Engineering and the Bachelor's Degree in Energy and Sustainability Engineering. A 5-year curriculum was developed that began the 2020-21 academic year with great success. Comments regarding the double degree are included in the Bachelor's Degree in Energy Engineering and Sustainability.

In relation to the possible improvement actions that could be implemented in the coming academic years, provided the health situation so allows:

- Explore the possibility of implementing integrative projects, developed across several subjects, in Lleida, in industrial degrees.
- Study the possibility of participating again in MotoStudent. Participation in MotoStudent would imply the possible implementation of an integrating project between the degrees of the industrial branch of the EPS since all of them converge perfectly in the design and manufacture of a motorcycle (mechanics, energy, electronics, chemistry and industrial organization and logistics). The coordinators of the degrees involved are expected to participate directly in the EPS team, as well as the teaching staff from related areas.

BACHELOR'S DEGREE IN ELECTRONIC, INDUSTRIAL AND AUTOMATIC ENGINEERING

The study plan of the Bachelor's Degree in Industrial Electronic and Automatic Engineering (GEEIA) responds to the ministerial file ORDER CIN/351/2009 that establishes study plans that enable exercising the regulated profession of Industrial Technical Engineer. In this way, an adequate competence profile is guaranteed.

The GEEIA curriculum consists of 240 ECTS, distributed across four academic years with 30 ECTS per semester, 66 ECTS of basic training, 150 ECTS of core/compulsory subject and 24 elective ECTS. Criterion 2.1 details its structure and modules.

The design of the degree was positively verified by ASIIN on 8 April 2016. The verification committee resolved that the study plan was consistent with the competence profiles and the objectives of the degree, allowing the correct development of skills. Although the offer of optional subjects has not been modified in recent years, it is worth mentioning that the objectives and contents have been adjusted according to the demands of the local industry and to the experience that the teachers involved during these years have acquired. The improvement in the results achieved with the optional blocks over these years is valued very positively, hence it is currently not a priority to increase or modify the optional offer.

Since the last accreditation, the entire structure, objectives and competences of the degree have been maintained. Only 3 non-substantial changes have been made that have not affected the profile of competences or the planned objectives. On the contrary, they have been actively implemented improving the natural functioning of the degree. It should be noted that the correspondence between the validated report and its actual delivery is total, not only in the non-substantial changes made but in the entire structure of the study plan defined from the beginning of the degree.

The information on the objectives of the degree, competences and structure of the study plan, detailing the different training modules and the teaching guides for each subject, is available and updated, with public access on the degree website (http://www.grauelectronicaiautomatica.udl.cat/en/). Likewise, all non-substantial changes have always been introduced in the degree report, have been updated in the informative channels of the centre, and have been implemented successfully in the academic years since their approval by the Study Committee and subsequent ratification by the Governing Council of the UdL. All the modifications that have occurred since the last verification of the degree by ASIIN are detailed below. In this case, they are all non-substantial:

- **18/19 academic year**. Non-substantial modification. Approved by the Governing Council of the UdL on 19 June 2018 (agreement 148/2018). Reordering of the content of the subject Thermal and Fluidomechanical.

  The contents of the subjects Thermal Engineering 1 and Fluid Mechanics are reordered. The aim is for them to be more appropriate to the knowledge to be acquired by an industrial technical engineer. This change has emerged from the analysis by the responsible teaching staff.

  Reordering of the contents and the learning outcomes of the subject Computer Science. The aim is for them to be more appropriate to the knowledge to be acquired by an engineer in the industrial branch. Date of approval by the centre's committee: 04/05/2018.

  Modification of the name of a subject. The compulsory subject called "Production Management" was renamed "Production Organization".

- **20/21 academic year**. Non-substantial modification. Approved by the Governing Council of the UdL on 18 February 2020 (agreement 27/2020). Semester change

between two 2nd year subjects.

It is proposed to exchange two semester subjects of the common training module of the industrial branch. This modification is made in order to balance the academic load of the students between the two semesters:

Fluid Mechanics: from the 2nd year - 2nd semester to the 2nd year - 1st semester.
Thermal Engineering I: from the 2nd year - 1st semester to 2nd year - 2nd semester.

- **21/22 academic year**. Non-substantial modification. Approved by the Governing Council of the UdL on 22 April 2021 (agreement 65/2021). Introduce the new transversal competence "Apply the gender perspective to the tasks of the professional field".

  This competence has been assigned to the subject Business, one of the basic subjects of the degree, specifically to Business Organization, because it is the one that best fits its content. The new built-in learning outcomes are:
  - Know how to conduct research from a gender perspective: know how to use and create qualitative and quantitative indicators, including statistical ones, to better understand gender inequalities and the differences in the needs, conditions, values and aspirations of women and men.
  - Know how to approach the assigned projects and the assigned research work integrating the variables of sex and gender with relevance to the problem or issue raised.
  - Consider the target customer segment (women/men) in the product/process development phase, taking into account their characteristics and needs, also paying attention to other variables such as age, race or functional diversity.

  The inclusion of this competence allows complying with the requirement of the AQU to assess the implementation of the gender perspective.

Regarding the gender perspective, apart from the incorporation of a new competence, equality measures have been incorporated in the writing and content of the teaching guides and presentation and monitoring materials of the degree, visualizing bibliographic materials written by women and the use of inclusive, non-discriminatory language. The effort made regarding gender perspective in recent years is positively valued and is expected to have an effective impact on the social and inclusive training of students and therefore on society.

BACHELOR'S DEGREE IN ENERGY AND SUSTAINABILITY ENGINEERING

The Bachelor's Degree in Energy Engineering and Sustainability began to be taught in the 2017-18 academic year and has been progressively implemented (one course per academic year) until its full deployment in the 2020-21 academic year. The implementation this last year marks a relevant milestone since it has also implied the graduation of the first Energy and Sustainability Engineering engineers. The implementation process is valued positively, having complied with the schedule foreseen in the verified degree report.

The curriculum is consistent with the overall objectives and expected learning outcomes, as detailed in Criterion 1.1. Likewise, the degree report clearly defines the knowledge, skills and competences to be acquired in each module. It should be noted that the contents of the modules are continually subject to review and updating to improve their adaptation to the aforementioned objectives and learning outcomes. As a result of this continuous review process, the following non-substantial modifications have been applied to the degree report:

- Rearrangement of the contents of Thermal and Fluidomechanical subject. The aim is for them to be more appropriate to the knowledge to be acquired by an engineer in the industrial branch. Date of approval by the centre's committee: 04/05/2018.
- Reordering of the contents and the learning outcomes of the subject Computer Science. The aim is for them to be more appropriate to the knowledge to be acquired by an engineer in the industrial branch. Date of approval by the centre's committee: 04/05/2018.
- Elimination of the obligation to take one of the three majors. The experience from the remaining degrees of the industrial branch indicates that it may be interesting for some students to pick only some of the subjects of each major, so they can define their own specialization profile. Date of approval by the centre's committee: 04/05/2018.
- Modification of the name of a subject. The compulsory subject called "Production Management" is renamed "Production Organization". The aim is for the name to be more similar to the name of equivalent subjects at other universities. Date of approval by the centre's committee: 04/05/2018.
- Semester exchange of two second year subjects: Fluid Mechanics goes to AY2 S1 (second year, second semester) while Thermal Engineering I goes to AY2 S2. This modification was made to balance the academic load of the students between the two semesters. 01/30/2020
- Modification of the name of the subject "Tutored Internships in Companies: Installations" to "Tutored Internships in Companies: Energy Installations". This modification was made to unify the name of all the subjects that make up the subject "Energy Installations". Modification of the name of the subject "Tutored Internships in Business: Mobility" to "Tutored Internships in Business" and it is situated as a subject outside of "Mobility". This modification broadens the range of PTE offerings since students are not forced to take the internship within one of the majors. Date of approval by the centre's committee: 01/30/2020.
- Incorporation of the transversal competence "CT6. Apply the gender perspective to the functions of the professional field in section 3 of the degree report and to the study plan in the subject "Business Organization". Date of approval by the centre's committee: 03/18/2021.

Among the previous modifications, the incorporation of the gender perspective competence (CT6) stands out, which implies an increased competence profile of the degree. The aim is for the gender perspective to be worked on throughout the bachelor's degree training plan, which is why it has been chosen to explicitly incorporate it into the subject "Business Organization", belonging to the basic training module for which all students must be enrolled in the first year. Furthermore, the subject is particularly suitable for applying this competence given its obvious links with the professional field. Consistent with the introduction of the gender perspective competence, the following learning outcomes have been added to the subject "Business

Organization":

- Know how to conduct research from a gender perspective: know how to use and create qualitative and quantitative indicators, including statistical ones, to better understand gender inequalities and the differences in the needs, conditions, values and aspirations of women and men.
- Know how to approach the assigned projects and the assigned research work integrating the variables of sex and gender with relevance to the problem or issue raised.
- Consider the target customer segment (women/men) in the product/process development phase, taking into account their characteristics and needs, also paying attention to other variables such as age, race or functional diversity.

Now that all the courses of the degree have been presented, there is a high degree of correspondence between the verified report (with the non-substantial modifications incorporated) and the actual implementation of the degree. As of the date of this report, the introduction of new modifications in the degree report is not being considered.

Among the improvements applied throughout the period analysed (academic years 2017-18 to 2020-21), the following stand out:

- As a result of the experience acquired during the first years of teaching the degree and considering a growing demand for highly qualified engineers, a double degree has been designed between the Bachelor's Degree in Mechanical Engineering and the Bachelor's Degree in Energy and Sustainability Engineering. This double degree has a duration of 5 years (303 ECTS) and began to be taught in the 2020-21 academic year with good enrolment figures (see Criterion 1.4). The purpose of this double degree is to train engineers with a profile that combines knowledge of mechanical engineering with knowledge of energy and sustainability engineering, attending to the complementarity of these areas.
- Throughout these academic years, numerous actions to promote the degree have been carried out, including the organization of workshops for secondary schools, visits to high schools and vocational training centres, dissemination through the local media (interviews, articles), dissemination through social networks, participation in the virtual fair UNIferia Grados 2021, etc. Due to its specificity, it is worth highlighting the organization in April 2019 of the "1st Edition of the Energy and Sustainability Week of the EPS" dedicated to giving visibility to aspects related to the interaction between research, energy and sustainability in accordance with the Sustainable Development Goals. The 2nd edition, scheduled for April 2020, could not be held due to the pandemic.

As future improvements it is proposed to:

- Explore the feasibility of a double degree with a European university.
- Strengthen the relationship between vocational training schools with the Degree in Energy Engineering and Sustainability.

Criterion 1.4 Admission requirements

The admission procedure is organized and coordinated by the Catalan government, and it is the same for every university in the Catalan system.

Each student obtains an access mark which is calculated from their own marks at high school (60%) and the marks obtained in a general entrance exam (40%), known as PAU or 'selectivitat' exams. Then, students are requested to define their order of priority of their programmes of preference. According to this prioritization and their access marks, the admissions office of the government assigns students to each programme. After this procedure, the lowest mark to enter a programme is published (so-called cut-off mark), which serves as an orientation for students in subsequent years.

This entire procedure is public, transparent and traceable on the university portal of the Generalitat de Catalunya (Catalan Government).

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

The demand for the degree has been growing continuously during the last years. Hence, in recent academic years, all the vacancies have been filled, and the cut-off mark has significantly increased (7.166 this last year). Furthermore, 94% of new students have chosen this programme as their first preference. This is undoubtedly due to the increasing digitization of society and the alignment of the professional profiles offered by the degree with the profiles most sought after by today's society.

Regarding the profile of new students, 81.7% come from high school, while vocational training students have decreased to 18.3%. The following Tables show the evolution of the enrolment, the cut-off mark and the access marks.

Supply, demand, enrolment

	16/17	17/18	18/19	19/20	20/21	21/22
Available places	70	65	70	70	70	70
Demand 1st option	67	80	77	82	-	88
New access students	54	72	69	62	72	-
Access percentage 1st preference	91%	88%	99%	82%	94%	-

Cut-off mark

	16/17	17/18	18/19	19/20	20/21	21/22
June cut-off marks	5	5	5	6.06	6.61	7,166

Access Notes

	5-6	6-7	7-8	8-9	+9
Baccalaureate	8.6%	17.2%	17.2%	17.2%	39.7%
CFGS		46.2%	23.1%	23.1%	7.7%

One of the endemic problems for Computer Engineering degrees is the very low rate of enrolment by women compared to men, a problem that exists globally (ref. ACM Vol. 62 No. 5, pp. 56-63). In the Polytechnic School we are fully aware of this problem, and we are committed to fighting stereotypes and promoting different activities that help promote technical and scientific skills among the youngest and particularly women.

In spite of this low enrolment rate, we have observed a slight increase: in the 2010-11 academic year, women enrolled accounted for 5%, 7% in the 2020/21 academic year and 9% for last year. We hope this percentage will continue to increase and we will continue working hard to make it happen, particularly in our area of influence.

COMMON CORE OF INDUSTRIAL ENGINEERING DEGREES

Since the 18/19 academic year, access to the three industrial bachelor's degrees offered at EPS-Lleida was unified: the Bachelor's Degree in Mechanical Engineering (GEM), the Bachelor's Degree in Electronic and Automatic Engineering (GEEIA) and the Bachelor's Degree in Engineering of Energy and Sustainability (GEES), making up the Common Core of the Industrial Engineering Degrees of Lleida. The main objective of this modification is to facilitate the student's choice of the industrial speciality that the student will not have to take until the 2nd year, either between the three offered in Lleida (mechanics, industrial electronics, energy) or the two in Igualada (chemical and industrial organization). Therefore, admission requirements during this period will be analysed jointly in this section. In the subsequent sections, admission will be analysed separately for each programme, corresponding to the period prior to 18/19.

In the 18/19 academic year, the number of new students in the common branch was 131 out of an offer of 130, with a cut-off mark of 5, the same as in previous years. The unification of access through the common branch resulted in an increase of 10 students (+ 8.2%) compared to the previous year with separate access. The following academic year (19/20) remained similar, however, in this last academic year (20/21) there has been a decrease in new students from 126 to 98. To properly assess these figures, the implementation this last year (20/21) of the double bachelor's degree in Mechanical Engineering and Energy and Sustainability Engineering, with 12 new students, must be borne in mind. Considering the enrolment on the double degree, the actual decrease is from 126 to 110 (-13%). Initially, this decrease was associated with the exceptional consequences caused by the COVID-19 pandemic during the last two years, which has made it difficult for students to access education and for face-to-face teaching to take place.

This hypothesis is supported by the recovery in the preliminary pre-enrolment figures for the 21/22 academic year, available on the date of writing this report. Also in relation to the enrolment of new entrants, it should be noted that, unfortunately, the gender bias (9 women and 89 men) common in engineering degrees in the industrial branch continues to be observed. This hypothesis is supported by the recovery in the preliminary pre-enrolment figures for the 21/22 academic year available on the date of writing this report.
Regarding the cut-off mark for new admissions, although in some years the entire supply of places has been covered, it has never warranted exceeding 5. Even so, the percentage of new-entry students who have an access mark between 5 and 6 remains at 18.3% (22.2% among women and 17.9% among men), the same as in the 15/16 academic year. In general, the distribution of access grades is quite uniform, concentrating the bulk of students between 6 and 12 (81.6%). The change in access, unifying the industrial branches, has not been affected in this sense.

The main access route continues to be through the Baccalaureate, with 79.6% of the students enrolled in the 20/21 academic year, vocational training accounting for 19.4%, while students over 25/40 years old cover the remaining 1%. Each year, a significant number of students enter the degree through vocational training. This accentuates the complicated adaptation of the students in the most basic first-year subjects such as mathematics and physics. For this reason, teaching mechanisms continue to be promoted within the framework of the Internal Quality Assurance System (SGIQ) of the UdL, such as the Zero Mathematics (http://www.eps.udl.cat/ca/info_per/curs-zero-de-matematiques-per-a-lenginyeria/) and Zero Physics (http://www.eps.udl.cat/ca/info_per/curs-zero-de-fisica-per-a-lenginyeria/) courses, as well as the duplicate offer of subjects of greater difficulty in the two semesters of the same year, where the student has the option of retaking a failed subject without having to wait and lose an entire academic year. These practices were very well received in the last evaluation of the design of the degree and have been successfully maintained.

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING

The requirements for access to the Bachelor's Degree in Mechanical Engineering and all related information are included on the degree website:
http://www.graumecanica.udl.cat/en/futurs-estudiants/acces-admissio/. The degree began in the 2010/2011 academic year, and after its first five years it was evaluated by ASIIN, obtaining the EUR-ACE® label. In the period from academic year 16/17 to academic year 20/21 there was a change in access to the degree, in academic year 18/19, so that pre-registration became unique for degrees in the industrial field, as indicated above. It is for this reason that access to the 18/19-20/21 academic years have previously been included jointly under the heading "Common Core of Industrial Engineering Degrees - Lleida".

Regarding the 16/17 and 17/18 academic years, both are discussed specifically below:

16/17 academic year
The number of places offered in the 2016/17 academic year was 75, with 75% of them (56/75) being covered.

The predominant access route, as in previous courses, continued to be through university entrance exams, with a percentage of 80.4%. Of this 80% of new students, 60% gained access a university entrance exam grade equal to or greater than 7. This score is in line with the average of the average grade obtained in the PAU in Catalonia in 2016 (6.642) and with the average grade for access to university (7.035).
In reference to the origin of new students, as has happened since the introduction of the new degree, most of them came from Catalonia. However, it should be noted that as a result of the national and international dissemination and promotion of the degree by the EPS, the number of students from outside Catalonia increased by 10%. The figures for the 2016/17 academic year are approximately 75% of Catalan students (in the 2015/16 academic year the percentage was 84%).

17/18 academic year
As a result of the reduction in the number of students enrolled in previous years, and taking into account that the new degree in the industrial field of the EPS began in the 17/18 academic year: the Bachelor's Degree in Energy Engineering and Sustainability, it was decided to adjust the offer of 50 places. Of these 50 places, 108% (54/50) were filled.
The predominant access route continued to be through university entrance exams with a percentage of 79.6%. Of this 80% of new students, 76.7% gained access with a university entrance exam grade equal to or greater than 7. This percentage has increased considerably in reference to the previous year (60%). This change was assessed as positive.
Regarding the origin of new students, as a result of the national and international dissemination and promotion of the degree by the EPS, the number of students from outside Catalonia increased by 10%. The figures for the 2017/18 academic year stood at approximately 65% of Catalan students (in the 2016/17 academic year the percentage was 75%).
Regarding access to the degree segregated by gender, it should be noted that the figures show a very clear bias towards a selection of the degree by men. Specifically, in the 16/17 academic year, the percentage of women was 5.8% and in the 17/18 academic year it was 10.2%. In this sense, the EPS has carried and still carries out various activities and conferences especially aimed at attracting a female audience, but as the figures indicate, in the case of mechanical engineering, the success of these actions is still limited. However, the EPS continues and will continue to promote industrial engineering with special emphasis on women.

BACHELOR'S DEGREE IN ELECTRONIC, INDUSTRIAL AND AUTOMATIC ENGINEERING

Admission procedures to official university degree courses in Spain are set out in the regulations approved in Royal Decree 412/2014 of 6 June 2014.

In the Academic regulations of the UdL degrees, updated in each academic year and approved by the Governing Council, pre-enrolment and enrolment instructions are defined. Likewise, the admission profile and the access routes are publicly accessible in Catalan, Spanish and English on the same degree website.
(http://www.grauelectronicaiautomatica.udl.cat/en/futurs-estudiants/acces-admissio/).

In the 16/17 and 17/18 academic years, after the last verification of the degree and prior to the unification of the common access to industrial degrees, the number of new students remained at around 40 students, following the trend of the years prior to verification. These data have practically always completely covered the places offered for the degree. Previously, in the 15/16 academic year, the number of places assigned increased from 40 to 45 due to the excess of stable demand (between 4 and 17 excess students), however, in the 16/17 academic year, new student entry dropped from 41 to 36, so in the 17/18 academic year the limit of 40 places was reestablished. However, in the following academic year, 17/18, the demand grew again with a total of 47 assigned places (41 newcomers). In general, in these years, the number of new students remained above 90% of the supply, with a very high first-preference access percentage (> 94%).

The total number of students enrolled in the 3rd and 4th years is 78, which is a very stable figure since all years of the degree were implemented (σ = 4.34, between the 14/15 and 20/21 academic years). The majority of students are still from the same province, 79.5% in the 20/21 academic year, while 20.2% come from outside Catalonia. Figures are practically identical to previous years, which confirm the excellent consolidation of the degree to cover the industrial demand of the region.

In relation to the gender perspective, 16.4% of the students enrolled in the current course are women, very similar to the other industrial degrees in the centre (between 16 and 18%), barring the Bachelor's Degree in Chemical Engineering, where there are more women (56.7%) than men. In the Bachelor's Degree in Industrial Electronic and Automatic Engineering (GEEIA) there is a significant bias between the sexes, more than would be desired in engineering degrees. However, it should be noted that, in recent years, there has been a slow but constant tendency to reduce this difference. Female representation has increased by 8.0% compared to the 13/14 academic year. Considering the different admission routes, access from Baccalaureate has a better equity ratio, with a 15.0% presence of women. Conversely, in access from vocational training, there is no female representation. If we look at the access grades of new students by gender segregation, both groups present practically the same distribution.

In recent years, several actions have been deployed in order to attract students outside the local sphere, both Spanish and international, as recommended in the previous verification of the degree. Some of the actions have included the presence of the degree at the UNIferia virtual fair held on 12 February 2021 (http://www.uniferia.org/) and the digitization of several promotional resources for the presentation of the centre, such as a virtual tour accessible from the School's website where the different spaces, including the GEEIA laboratories can be visited (http://www.eps.udl.cat/ca/lescola/Installacions/Tour-Virtual-EPS-360/). In the same vein, the dissemination of the Open Days has been improved, changing to a virtual format in the last two courses (due to COVID-19). This format has been very well received, as it has enabled a higher participation of families from further afield.

BACHELOR'S DEGREE IN ENERGY AND SUSTAINABILITY ENGINEERING

The procedures and requirements for admission to the degree are clearly structured and the

information is available on the School website (http://www.eps.udl.cat/ca/). Likewise, the admission profile and the access routes are publicly accessible in Catalan, Spanish and English on the degree website (http://www.grauenergiaisostenibilitat.udl.cat/en/futurs-estudiants/acces-admissio/).

The Bachelor's Degree in Energy and Sustainability Engineering (GEES) began the 2017-18 academic year with new enrolment by 26 students out of 40 places, with a first preference access percentage of 81% and cut-off mark of 5. In this first year, 72% of the students gained access through baccalaureate/PAU, 8% having done vocational training, and 20% through other access routes (file transfer, etc.). As of the 2018-19 academic year, access to GEES, as well as to the other two industrial degrees taught at EPS-Lleida (GEM and GEEIA) is through a single pre-enrolment entry. The new entry data corresponding to the 2018-19 academic year can be consulted in the section "Common Core of Industrial Engineering Degrees - Lleida". Considering only students from high school/PAU, in the 2017-18 academic year, the GEES access grades were: between 5 and 6 (17%), between 6 and 8 (33%), between 8 and 9 (22%), higher than 9 (28%). This distribution of grades is similar to that observed in later courses with unified access through the aforementioned Common Core.

The total number of students enrolled in the degree (not including the Common Core of Industrial Engineering Degrees) has ranged between 17 and 26 since the beginning of the studies in the 2017/18 academic year. It should be taken into account that since 18/19, the students in the common core are no longer accounted for in the figures of the GEM. This means that the total number of enrolled students fell from 26 (2017/18 academic year) to 17 (2018/19 academic year). It is foreseeable that as the students from the Common Core of Industrial Engineering Degrees reach the third year of the degree, the total number of students enrolled in the degree will increase. This trend has already been noted with the progressive increase in the total enrolment figures for the last two years: 23 students (2019/20 academic year) and 25 students (2020/21 academic year).

In relation to the gender perspective, among the 25 students enrolled in the 2020/21 academic year, there were 4 women (16%) and 16 men (84%). During the period analysed (academic years 2017-18 to 2020-21), the percentage of women in the degree has ranged between 13% and 27%. There is thus a clear bias that, unfortunately, is common in industrial grades.

The double degree: Bachelor's Degree in Mechanical Engineering and Degree in Energy and Sustainability Engineering (GEM-GEES) began in the 2020-21 academic year and has a differentiated access route from the Common Core of Industrial Engineering Degrees. In this first year, a total of 12 new students gained access, exceeding the number of places offered (10), with a 100% first preference access and a cut-off grade of 5. The vast majority of students (11) came from high school/PAU, with only 1 student from vocational training. 75% of students gained access with a grade higher than 9, far higher than the 37.2% registered in the Common Core. These access grades are consistent with the difficulty of a double engineering degree. New access students include 25% women. This percentage remains low but is clearly higher than that usually seen in industrial degrees.

2. The Degree Programme: Structures, Methods & Implementation

Criterion 2.1 Structure and modules

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

The curriculum for the Computer Engineering degree is structured into five modules which are in turn organized into study areas and subjects. The module structure allows the definition of individualized itineraries, so that students can adjust their studies to their interests. Below is a brief description of each of the modules.

The Basic training module consists of four fundamental study areas: Informatics, mathematics, physics and business, covering compulsory basic training competences for engineering qualifications. The subjects in this module are mostly taken in the first year of the degree, except for one subject, which is taken in the second year (Discrete Mathematics).

The second module consists of a set of compulsory training competences corresponding to common training for the Computer Science degrees. The subjects of this module are taken in the second and third years of the degree.

The third module consists of 48 ECTS of elective subjects. The subjects of this module are taken in the third and fourth years of the degree and the student can choose to specialize in three different areas: (a) Major in Computing, (b) Major in Information Technologies, and (c) Major in Software Engineering. The student can also choose to take the credits of any of the specialities through a mobility programme.

The fourth module consists of 6 ECTS of elective subjects. The aim is to enable the comprehensive training of the student on topics as disparate as gender equality, ethical commitment in professional performance, culture, sport, communication, marketing, etc.

The fifth module consists of 15 ECTS corresponding to the in-company Internship. The Internship is done in the fourth year and is equivalent to 320-hours. The student can choose to participate in International Internship programmes such as IAESTE or ERASMUS, or choose from a large number of companies in the UdL's area of influence. The high-performance business fabric in Lleida allows us to offer internships in companies in a wide range of sectors and sizes.

The Bachelor's Degree Thesis consists of 15 credits. It must be done once the first three years (180 credits) have been passed and the task is performed by each student under the guidance of a supervisor or two co-supervisors. If the work is done during the in-company internship, the co-supervisor corresponds to the co-tutor in the company. The Bachelor's Degree Thesis entails writing an original project that requires the application of the knowledge acquired during the degree and where communication skills, project management, decision-making, self-

management, etc. skills are also developed.

Regarding language, basic and common training CS modules are taught mainly in Spanish or Catalan. 30% of the ECTS in each specialization are taught in English. Each student, regardless of the specialization chosen, takes 21 ECTS in English. This guarantees that the students, even when they decide not to participate in a mobility programme, receive a minimum of credits in a third language, in this particular case English, which is essential for exercising their profession.

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING

Regarding the structure and modules of the degree, much of the information has already been dealt with previously (Criterion 1.1). This information appears in detail in the degree report. In summary, the following table includes the modules that make up the degree:

Module	Denomination	Type of subject	ECTS
Module I	Basic training module	Compulsory	66
Module II	Training module common to the industrial branch	Compulsory	60
Module III	Specific Technology Training Module: Mechanics	Compulsory	60
Module IV	Optional training module	Optional	24
Module V	Module of supervised in-company internships	Compulsory external internships	15
Module VI	End-of-Degree Project Module	Compulsory degree final project	15
		Total	240

Module I of basic training is taken fundamentally in the first year (with the exception of two subjects which are taken in the second) and contains all subjects that introduce the basic contents that will later allow undertaking more advanced and applied subjects. The subjects of the basic module are:

NAME	Academic year (AY) and Semester (s)	ECTS
LINEAR ALGEBRA	AY1 s2	6
CALCULUS	AY1 s1	9
NUMERICAL METHODS	AY2 s1	6
STATISTICAL METHODS	AY2 s2	6
PHYSICS I	AY1 s1	6
PHYSICS II	AY1 s2	6
GRAPHIC EXPRESSION I	AY1 s1	9
CHEMISTRY	AY1 s1	6
BUSINESS MANAGEMENT	AY1 s2	6
COMPUTER SCIENCE BASICS	AY1 s2	6

Module II, which is focused on common training for the industrial branch, is made up of mainly second-year subjects. The subjects of this module are shown below:

NAME	Academic year (AY) and Semester (s)	ECTS
THEORY OF MECHANISMS	AY2 s1	6
THERMAL ENGINEERING I	AY2 s2	6
FLUID MECHANICS	AY2 s1	6
MATERIAL SCIENCE	AY1 s2	6
ELECTRONIC ENGINEERING BASICS	AY2 s2	6
INDUSTRIAL AUTOMATION	AY2 s2	6
ELECTRICAL ENGINEERING BASICS	AY2 s1	6
ORGANIZATION OF PRODUCTION	AY3 s1	6
ENVIRONMENTAL TECHNOLOGIES AND SUSTAINABILITY	AY2 s1	6

Correlatively, module III corresponds to specific training in mechanics. The subjects in this module are taken mainly in the third year and are linked to the competences that an engineer with the attributions of an industrial technical engineer, a mechanical speciality, must acquire. The specific subjects are:

NAME	Academic year (AY) and Semester (s)	ECTS
THERMODINAMICS ENGINEERING II	AY3 s1	6
FLUIDS ENGINEERING	AY3 s2	6
THEORY OF MACHINES	AY3 s1	6
CALCULUS AND MACHINE DESIGN	AY3 s2	6
ELASTICITY AND STRENGTH OF MATERIALS I	AY2 s2	6
ELASTICITY AND STRENGTH OF MATERIALS II	AY3 s1	6
THEORY OF STRUCTURES AND INDUSTRIAL CONSTRUCTION	AY3 s2	6
MATERIALS FOR MECHANICAL MANUFACTURING	AY3 s1	6
MANUFACTURING TECHNOLOGIES	AY3 s2	6
GRAPHIC EXPRESSION II	AY3 s2	6

The optional training module (IV) consists of 24 ECTS, of which 18 ECTS correspond to the optional blocks of Sustainable Construction, Energy Facilities and Mechatronics. In addition, a fourth elective block of 18 ECTS credits called Mobility is included, which aims to encourage undergraduate students to take subjects with various mobility options (Erasmus, Sicue, etc.) through direct recognition. Finally, 6 ECTS correspond to the cross-curricular subject. The objective of the cross-curricular subject is to offer the student the possibility of acquiring complementary training to that of the degree in different aspects.

Module V consists of the compulsory in-company internship (PTE), which, as its name indicates, aims for students to apply the knowledge they have acquired in industry and enterprise whose activities are directly related to mechanical engineering. PTEs are planned in the fourth year of the degree.

The last of the modules (VI) corresponds to the degree final project, taken in the fourth year of the degree and which, according to Order CIN/351/2009 is an: "Original exercise to be carried out individually and presented and defended in front a university board, consisting of a project in the field of specific technologies of Industrial Engineering of a professional nature in which the competences acquired in the teachings are synthesized and integrated."

It is worth mentioning that the elective blocks of the degree are carried out in English and, together with other subjects of the common or specific training module, add up to 60 ECTS of the mechanical engineering degree that are taught in English. This strategy responds to two different goals: on the one hand, the commitment to training engineers from a global perspective and, on the other, to attract international students.

BACHELOR'S DEGREE IN ELECTRONIC, INDUSTRIAL AND AUTOMATIC ENGINEERING

The GEEIA degree programme consists of 240 ECTS, distributed in four academic years, with 30 ECTS per semester. The structure is made up of 6 modules which are organized into subjects. These subjects were defined according to the objectives and competences required to meet the expected qualifications profile. Each subject involves a series of courses that are intertwined, with shared objectives and competences. Apart from the basic training modules, which are taught in the 1st and 2nd years and are part of the common branch of the centre's industrial degrees, the programme includes a specific training module that defines the profile of an industrial technical engineer with 24 ECTS in electronics, 24 ECTS in automation and control, 6 ECTS in electrical engineering, and 6 ECTS in industrial computing.

Specialization subjects are distributed in time according to their requirements, allowing the due acquisition of learning in time. In the first years of the deployment of the degree, some non-substantial changes were made to improve this aspect. Currently, the structure and organization are consolidated and function excellently.

The specific training of the degree programme is complemented in the 4th year with the optional module consisting of the cross-curricular subject (6 ECTS) and the optional block (18 ECTS). Currently, three very diverse training blocks are offered: the Systems Integration block that involves the design and integration of electronic control systems, the Programming and Communications block, which includes a further profile of industrial systems programming, data management and device interconnection, and finally the Mechatronics block, where the application of measurement and control systems for industrial actuators is worked on. The latter is shared with the Degree in Mechanical Engineering, which allows multidisciplinary work groups to contribute very positively to the performance of teamwork. The centre ensures that the elective subjects are of the highest educational quality possible. One of the actions has been to limit elective subjects to 10 students and maintain a co-requisite format between subjects of the same elective block. In this way, knowledge has been furthered and a higher level of training has been achieved in the context of each elective block.

The degree structure is consolidated by the Bachelor's Degree Thesis (TFG) modules (15 ECTS) and the in-company internship (PTE) (15 ETCS) that are compulsory. These modules allow the student to gain a real approach to the knowledge acquired during their training and synthesize the competences acquired in a final project, normally linked directly to the local industrial sector or to active projects of both research and technology transfer. These modules are planned in the 4th year, but are somewhat flexible to ensure their excellent integrity within the programme. In the case of the TFG, there are two enrolment periods (September and February) and it can be conducted and presented at any time during the year that the student and supervisor (or co-supervisors) deem most appropriate. In addition, for enrolment it is not necessary to have completed the entire previous year, but to have passed 180 ECTS. This gives more scope for students who are in their 4th year and have a pending subject. However, to be able to present it, students must have passed the previous years. In the case of the PTE, there is the figure of the School-company coordinator, who is in charge of individually advising each student in their choice (prioritized by the respective academic record grade) of the company within the list of available company agreements. Also, the academic internship tutor is in charge of monitoring and supervising the student so that everything runs smoothly and without incident. The student can also enrol in the PTE in two enrolment periods, September and February, depending on whether they want to do it in the first or second semester. In general, the PTE must be done during the 4th year within the academic calendar. However, exceptionally, they can be done in summer, in case of students who are on Erasmus mobility in their 4th year or are doing a summer internship abroad (IAESTE). There is also the possibility of recognizing previous internships in companies related to the degree subject matter and students who combine studying with working in a related company.

For many years, the School has had the strategic objective of internationalization, which has been crucial both to attract foreign students and to improve the quality of training of our students with a wide range of possibilities to internationalize their studies (internships in international companies, courses at prestigious foreign universities, international double degrees, etc.). It should be noted that in recent years the offer of international double degrees for GEEIA students has been expanded. In the 4th year, if they meet the requirements, they can enrol in the double international degree in Electrical Engineering with the University of Novia in Finland or the double international degree in Electrical Engineering with the University Facens in Brazil. They have to study a minimum of 2 semesters of the GEEIA at the external university. In this way, students obtain an equivalent international degree with the recognition that this entails. In the other sense, in order to attract international students, in recent years the range of subjects taught in English has increased. Currently, more than 60 ECTS can be taken in English in each degree.

The degree programme guidelines are established based on the different academic regulations of the degrees approved by the Governing Council of the UdL: Assessment and Qualification Regulations, Permanence Regulations, Curricular Qualification Regulations, TFG Regulations, PTE Regulations and Regulations of Cross-curricular subjects (http://www.eps.udl.cat/ca/informacio-academica/normatives/portada/). Likewise, the general bases of organization of the School's undergraduate degrees are defined in the Academic Framework of the EPS, and are periodically reviewed and updated by the study committee

(http://www.eps.udl.cat/ca/informacio-academica/normatives/marc-academic-eps/). All of this information is available on the internet and is accessible to all publics. In addition, the structure of the degree programme and its modules are detailed on the degree website.

BACHELOR'S DEGREE IN ENERGY AND SUSTAINABILITY ENGINEERING

The study plan for the Bachelor's Degree in Energy and Sustainability Engineering is structured into five modules, in turn organized into subjects. The modules present concerted content that guarantees that the expected learning objectives and outcomes can be achieved (see Criterion 1.1). Moreover, the structure of modules allows the definition of individualized itineraries, so that students can adjust their studies to their interests (mobility, work placements, electives, etc.). Below is a brief description of each of the modules extracted from the verified degree report:

- Basic formation

This module corresponds to the compulsory basic training competences. The subjects of this module are taken in the first year of the degree, except for two taken in the second year. This module is common to the other degrees of the industrial branch that are taught at the School.

- Common training for the industrial branch

This module corresponds to the competences of compulsory training common to the industrial branch. The subjects of this module are taken in the second year of the degree, except one taken in the third year and another taken in the fourth year. This module is common to the other degrees of the industrial branch that are taught at the School.

- Specific technology training: Energy and sustainability

This module corresponds to the subjects that encompass the specific competences related to energy and sustainability. All the subjects corresponding to this module are taken in the third year of the degree, except one taken in the second semester of the second year. The subjects are the following: Renewable Energy Resources, Sustainability, Thermal and Fluid Systems, Electric Energy Systems, Energy Storage, Energy Management and Control.

- Elective training

The optional training is taken in the fourth year of the degree. Three majors associated with the optional training module have been defined: Environmental Mitigation (33 ECTS), Energy Installations (33 ECTS), and Sustainable Construction (33 ECTS). Each of these mentions includes the completion of 15 ECTS of In-company internships (PTE) on the subject of the chosen itinerary.

A fourth optional option is the completion of the Mobility itinerary (18 ECTS) that allows the student, in a mobility programme, to study some subjects that are not included in their study plan. Likewise, within the optional offer the student can choose the cross-curricular subject (6 ECTS) whose goal is to contribute towards the student's integral training (gender equality, ICT,

ethical commitment, culture, sports, etc.).

A differential aspect of the GEES curriculum is that PTEs are integrated into the optional training module with the aim, together with other related subjects, of constituting the three majors of the degree. For this reason, in the subject of PTE, four differentiated options are defined: three corresponding to each of these specializations and a general one for students who do not wish to take a major. The PTEs are taken in the fourth year and have a study load of 15 ECTS, which includes a 320-hour stay in the external entity.

- Final degree project

The degree final project (TFG), comprising 15 ECTS, must be done in the last year and is carried out by each student under the guidance of a supervisor or two co-supervisors. This work allows the student to show in an integrated way the training content received and the skills acquired associated with the undergraduate degree.

In relation to language, approximately 50% of the degree's teaching is carried out in English. Broken down by modules, basic and common training for the industrial branch is taught mainly in Spanish and Catalan. However, the specific technology and elective training modules are taught entirely in English.

Criterion 2.2 Work load and credits

For each semester, the academic calendar is organized into 15 weeks devoted to lectures and tutorials and 4 weeks intended for tests, which are organized as follows:

- one week in the middle of the semester for the partial exams.
- two consecutive weeks at the end of the semester for the final exams
- one extra week devoted to exam retakes, for students who may have failed some part of the assessment.

The exams are scheduled to avoid overlapping, distributing them along the exam period. Furthermore, each subject organizes additional assessments based on tests, projects, oral presentations,...

The School management considered it appropriate to carry out a study map of the degrees in order to analyse students' workload during the year to avoid load peaks due to the coincidence in time of a large number of internships and exams. A document was drawn up for each degree called "Map of Practical Activities". This document is revised every 2-3 years.

The lectures for each subject are scheduled weekly, so the workload can be distributed along the semester. The guide plans of each subject specify the expected workload.

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

The Computer Engineering Degree programme consists of 240 credits, distributed over four years as follows: in the first, 60 credits, in the second, 57 credits, in the third, 63 credits, and in the fourth, 60 credits. Most of the subjects have an assignment of 6 credits, although four subjects are of 9 credits, two of 4.5 credits, one of 3 credits, and two are of 15 credits (in-company internships and Degree Final Project). This disparity is due to the change to the teaching plan introduced in 2017 (commented in Criterion 1.3).

Estimated time budgets are realistic to allow students to complete the academic year without exceeding the expected duration. To help students distribute their work, the teaching guide for each subject includes its development plan. In this plan, the subject schedule is detailed, indicating the number of contact hours and individual work required for each content. It is evaluated by applying a continuous evaluation methodology, which helps students distribute their work throughout the year. A calendar of activities/practicals has also been created to detect if there are any weeks with a peak of work. Whenever a peak has been detected, we have spoken to the teachers responsible for the different subjects to distribute the work more evenly.

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING

As introduced in Criterion 1.1, the total credits of the degree (240 ECTS organized in 4 years) and the different blocks that it must contain are regulated in RD 1393/2007 and in Order

CIN/351/2009 respectively. In the different years that make up the degree, the credit load is 60 ECTS, with the most frequent number of credits per subject being 6 ECTS. There are only two subjects of 9 ECTS (Calculus and Graphic Expression I) and another two that are of 15 ECTS (in-company Internships and Degree Final Project). As a general rule, 1 ECTS is considered equivalent to 10 hours of classroom training and 15 hours of individual work.
It is important to emphasize that in their teaching guides, all the subjects contain the development plan of the subject in which the students can find information on how the subject will be taught, its contents and schedule (http://www.graumecanica.udl.cat/en/pla-formatiu/pla-estudis-guies-docents/).

Dedication by a full-time student to take the 60 ECTS per year is considered adequate and standard in university degrees in both the Catalan and the Spanish systems.

BACHELOR'S DEGREE IN ELECTRONIC, INDUSTRIAL AND AUTOMATIC ENGINEERING

The GEEIA qualification is organized within the Academic Framework of the EPS Degrees, which very clearly defines the distribution of hours of an ECTS according to the EHEA, i.e., 10 contact hours and 15 hours of individual work for each ECTS. It also defines that only 10% of contact hours can be dedicated to assessment activities. ECTS are distributed equally by academic year, semester and week. The heads of study are in charge of making the proposal for the distribution of ECTS (schedules), and it is presented to the Study Committee for approval. The organization of the study plan already provides for a balanced distribution of 60 ECTS per year and 30 ECTS per semester. This guarantees that, from the beginning, the student's workload is well distributed across the four years of the degree.

All the subjects, except for 2 of the basic training in the first year, the TFG and the PTE, are 6 ECTS and are taught weekly in 2 sessions of 55 minutes with an intermediate break of 10 minutes and a 20-minute mid-morning break between two different subjects. In addition, for the problems or practical sessions that are not lectures, the Academic Framework ensures that they are divided into medium-sized groups of between 20 and 40 students. For students required to work in laboratories with limited capacity, it also provides for splitting into small groups of 10 students. From the beginning of the degree, these measures guarantee direct and personalized attention to the student, supervising their learning progress and at the same time supporting their individual workload.

A Coordinator is assigned to all UdL degrees. They are in charge, among other things, of supervising the proper functioning of the degree in relation to the fulfilment of the objectives and learning without exceeding the workload. In this sense, in recent years some non-substantial changes have been made to the syllabus or to the reorganization of subjects with the sole purpose of better distributing the student's work load (see Criterion 1.3).

According to the statistical data on completion of the degree, the average graduation time in

recent years is 5.5, 5.1 and 5.3 years in the 18/19, 19/20 and 20/21 academic years, respectively. It has a stable trend with values very similar to the average for UdL engineering degrees (5.1 years). The graduation rate per cohort within the expected time has always remained above 60%, despite this last academic year in which it fell to 50.0%. This is reflected at a general level, as all engineering degrees have significantly lowered their index compared to the trend of recent years (-30.2%). This drop is mainly associated with the complications caused by the COVID-19 pandemic. Now, in the last 6 years, the average graduation rate in the expected time of the engineering degrees at the UdL is 68.8%, and in the case of the GEEIA it remains slightly higher, at 69.9%. These data are a good indicator that, in general, the difficulty, the student work load and the time of dedication is adequate and meets the requirements of the degree.

The student's assessment of the work load (hours of dedication), according to the satisfaction surveys of the subjects, scores an average of 3.28 out of 5 between the 10/11 and 17/18 academic years, very similar to the average for the centre (3.31 out of 5). It should be noted that student satisfaction regarding the appropriate work load has an upward trend; in the 17/18 academic year it rose to 3.47, 0.44 points more with respect to the 11/10 academic year. In recent years, student satisfaction with the subjects has been positive and continues to grow, in addition to the satisfaction of graduates who rate the overall educational experience at 3.7 out of 5, and 83.3% indicate that they would choose the same degree and centre again if they were to start again. These indices are indicative of good student satisfaction with the organization and implementation of the degree programme.

The average performance rate of the subjects of the degree in the last 4 years is 64.6%. In specialization subjects (3rd and 4th year), the performance rate rises to 90%, with the worst result being 60.1%. These results show that, in general, students can meet the teaching and workloads demanded by the teaching staff. However, in the common industrial branch, 30% of subjects (6 subjects) have a very low performance rate (<50%). These are the subjects of basic training in mathematics, algebra, physics and chemistry, in which the problem does not lie in the workload but rather in the inadequate training prior to entering the degree. This aspect has been accentuated even more in this last year, mainly due to the effects of COVID-19 on the education system. The average performance rate of the degree in first year has gone from 57.3% to 41.8%. The School contemplates different adaptation plans for students to try to improve these performance figures. The Mathematics and Physics Zero courses are being taught to reinforce basic knowledge, some of these subjects are also repeated in the second semester of the same year to offer a second opportunity without losing a curricular year, and there is also a tutorial action programme, UdL Acompanya (http://www.udl.cat/ca/organs/vicerectors/veo/UdL-Acompanya-Programa-Nestor/), which actively guides and advises students in their adaptation.

In recent years, the UdL has consolidated a programme that ensures the inclusion of people with functional, physical, mental or sensory diversity at the UdL, called UdLxTohtom (https://www.udl.cat/ca/serveis/seu/UdLxtothom/). This programme offers direct attention to students who have or believe they have some type of functional diversity. There is a tutor in the School for such a programme who is responsible for providing support to all students who so

request. Depending on the type and degree of disability, the student is given specific adaptations, such as, for example, more time to take the exam, not penalizing spelling mistakes or having direct support if doubts arise, among others. The running of this programme is highly valued. In recent years it has helped undergraduate students to better integrate into their day-to-day work, considerably improving their academic performance.

BACHELOR'S DEGREE IN ENERGY AND SUSTAINABILITY ENGINEERING

The bachelor's degree programme in Energy and Sustainability Engineering consists of 240 ECTS, divided into four years of 60 ECTS each. Most of the subjects have an allocation of 6 ECTS, although two subjects are of 9 ECTS and a further two are of 15 ECTS (in-company Internships and Degree Final Project). As an orientation for the student, it is usually considered that 1 ECTS is equivalent to 25 hours of work, of which 10 hours are in-class and 15 hours correspond to individual work outside the classroom (self-study).

The estimated workload distribution is realistic to allow students to complete the year without exceeding the regular duration. In this sense, it should be noted that each year (60 ECTS) corresponds to an annual workload of 1500 hours, which would be equivalent to a full-time job.

To avoid workload peaks, the teaching guide for each subject includes its development plan. In this plan, the schedule of the subject is detailed, indicating the number of face-to-face hours and individual work required for each of the contents. The teaching guides for the subjects can be consulted on the degree website (http://www.grauenergiaisostenibilitat.udl.cat/en/). Also, assessments are carried out by subjects and applying continuous assessment methodology (see Criterion 3.1), which helps to minimize work peaks.

Criterion 2.3 Teaching methodology

Every year, the university holds a call for grants for projects to innovate and improve teaching. Its main objective is to motivate teachers in the search for active and innovative teaching methodologies, to develop teaching resources and materials that enhance learning, and the improvement of the assessment process. EPS teachers actively participate in these calls. This information is expanded in criterion 4.2.

At the same time, EPS together with Professional Associations, awards prizes with various financial endowments to the best Bachelor's Degree Thesis (TFG) and Master's Degree Thesis (TFM). This distinction recognizes high quality work. To apply for one of the awards, the work must be published in RecerCAT. All the awards and distinctions can be consulted at the following link:
http://www.eps.udl.cat/ca/info_sobre/concursos_premis/

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

The teachers in the different subjects use a wide range of methods, from lectures in large groups, exercises or laboratory sessions in small groups, depending on the subject. Most engineering content subjects include practicals.

One key aspect at the University is academic research, and that students should have an initial contact with research to provide them with a different vision of the profession. There are subjects of the degree where this aspect materializes since it is related to the subject matter of some of the research groups (distributed computing, human-computer interaction, and artificial intelligence). Such groups also apply research knowledge in the Bachelor's Degree Thesis. The transfer of such knowledge is evident in the request each year for at least one research introduction scholarship by a student of the degree.

In the particular case of the Bachelor's Degree in Computer Engineering, a document of good practices has been drawn up by the teaching staff that is provided to the students. This document distinguishes several levels of expertise and for each level the requirements that the student must put into practice in terms of good programming, debugging and documentation practices. The teaching staff specifies the level of expertise that best suits each subject and it allows the student to know the level of demand in each subject in terms of programming skills, debugging practices, performance results as well as the level of detail and quality of documentation, diagrams, etc.

In surveys, students consider that most of the subjects have a very good methodology (more than 4 points out of 5 in 30 subjects out of 44), to a lesser extent they consider that they have a good methodology (between 3 and 4 points out of 5 in 12 of 44 subjects), and a minority consider that the methodology has aspects for improvement (between 2 and 3 points out of 5 in 2 subjects out of 44). There are no negative evaluations (less than 2 points).

During the 2019/20 academic year, it was necessary to adapt to a radical change in the way of teaching and receiving classes, going from a face-to-face to virtual format. The great effort made by both students and teachers to adapt (to) the teaching methodology is noteworthy. In the case of teachers, the rapid adoption of online tools (videoconferences, digital whiteboards, online tests,...) stands out, as well as the application of new teaching methodologies (flipped classroom, gamification, group work through online repositories, etc.). To help teachers, in early 2021 the EPS organized a workshop on teaching in times of COVID, where teachers at the School were able to share their virtual teaching experiences and the tools that had been useful for this purpose. Also, in June a seminar was held for teachers of the subjects in which computer programming is used, since there are very particular methods and tools for such subjects. Both activities were most positively received by the teaching staff.

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING

The different subjects contained in the degree curriculum define their methodological axes so that students achieve the learning outcomes optimally. The methodological axes followed in each subject are explicitly detailed in their teaching guide. Depending on the subject, their competences and the learning outcomes to be achieved, the teaching methodologies modulate accordingly. Among the different methodological axes we could highlight the lectures, the realization of practical activities, the writing up work, the classes dealing with problems, visits to different industries, problem-based learning, and projects, etc. As indicated in the listed methodologies, some of them promote group collaboration, individual work, etc., in addition to traditional classes.

As students progress through the degree and become familiar with the EPS and its different research groups, housed in the INSPIRES research centre, they can enjoy an introduction to and immersion in research, obtaining a scholarship from the University. An important aspect is that the lecturers of the degree carry out research directly related to the subjects they teach, accentuating this fact as the subjects become more specific in the industrial field and in mechanical engineering. In this way, the different contents introduced are supported by examples and research experiences that enrich the training and improve the students' motivation by appreciating concrete applications of the concepts of the subjects. In certain subjects and in the elective block in general, students conduct major projects for which they must carry out considerable research and apply writing techniques, linked to certain advanced document structures. Finally, the greatest exponent of how undergraduate students carry out research and write a formal document is the degree final project (TFG). The TFG, with a load of 15 ECTS, implies that the student must dedicate a very large number of hours to carry out research on a certain topic and to assimilate the methodology followed, the results obtained and its discussion and contextualization formally and in an orderly manner.

Each year, the students appraise the teaching methodologies followed in the different subjects. The results show that in the period 16/17 - 20/21 the teaching methodology is deemed very positive, obtaining a result of between 3.5 and 4 points out of 5. As an example, in the 20/21 academic year 41.5% of subjects that were evaluated in the teaching methodology section scored ≥ 4. 29% scored ≥ 3 and <4, and 29% scored <3. That is, for more than 40% of the subjects, their methodology is considered excellent, and 70% satisfactory or very satisfactory.

BACHELOR'S DEGREE IN ELECTRONIC, INDUSTRIAL AND AUTOMATIC ENGINEERING

As a general rule, the UdL's Degree Assessment and Qualification Regulations define that the assessment must be continuous throughout the teaching period of the subject. This leads to using methodologies that allow continuous work. The most used are problem-solving activities, laboratory practicals in small groups and group work with, or without public presentations. The methodologies specified in the definition of the degree subjects report are: lectures, problem solving and practicals. However, recently new methodologies for active learning and self-learning have been introduced, such as, for example, reverse class, reflective teaching (enquiry-based learning) and case studies. In addition, the exceptional situation of the last two years caused by the COVID-19 pandemic has forced the use of methodologies based on online learning, such as videoconference classes, asynchronous classes with recordings, simulations, moderated debates and forums, among others.

The UdL has a web platform called virtual campus (CV) that provides a virtual student-teacher working environment with a dedicated workspace for each subject. It has tools to share digital content, organize lesson content temporarily, manage activities, take tests and questionnaires, publish grades, as well as an integrated videoconferencing system, and communication tools such as forums, messages, announcements, etc. The use of this virtual platform has been key in the last two years with periods 100% online and blended teaching. There has been a very notable increase in its use; its operation and contribution to the online learning model has been excellent for both teachers and students. In this last year, students have awarded a score of 4.3 out of 5 for the use of the CV for their learning. The learning model is expected to be increasingly supported by the online tools offered by the CV.

The methodologies and their development plan for each subject are clearly defined in their teaching guides, which are periodically updated and adapted according to their needs. The methodologies used depend mainly on whether they are subjects from the common industrial branch, which tend to involve more numerous groups and introduce more theoretical concepts developed mainly through problems, or whether they are subjects from the speciality modules or optional modules. In this case, the methodologies are more practical, increasing laboratory hours with work-oriented learning methodologies and practical group projects. It should be noted that the distribution of teaching in large groups and medium-sized groups in all years of the EPS, allows problem or laboratory classes to be carried out with a reduced number of students (between 20 and 25). In the case of optional subjects, the number of students is even lower (between 10 and 15). This has facilitated more personalized attention to students and has made it possible to implement much more proactive learning methodologies.

The EPS has different laboratories to carry out the practicals, mechanics, electronics, mechatronics and chemistry laboratories, not forgetting computer science laboratories mainly for programming and simulation. Thanks to the successive calls for improvement of the EPS teaching infrastructures, these laboratories have been updated and improved in order to properly implement all the more practical and specialized training activities in subjects that so require.

We would emphasize the improvement of the electronics laboratory in the 16/17 academic year with the incorporation of equipment for the welding and assembly of electronic circuits. This equipment has been actively used in the last years of the Systems Integration elective block.

The professors of the UdL have a service called Support and Advice to Teaching Activity (http://www.saad.udl.cat/ca/), focused on providing the necessary pedagogical support to improve current teaching methodologies. There is also the Teacher Training Unit (http://www.fpu.udl.cat/ca/) that offers different pedagogical training courses for teachers. Thanks to these services and also to the aid for innovation and improvement of teaching promoted by the Vice-Rector's Office for Academic Planning and Quality, the GEEIA degree has adequately updated its methodologies in recent years. Some notable examples are:

- Electronic platform for the creation of feedback control systems, used in the practicals of the subject Basic Control Theory:
  T. Pallejà, O. Palacín, M. Tresanchez, A. Saiz-Vela, Low-cost teaching material for practicals of Basic Control Theory, Didactic Applications SAAEI 2020, pp. 240-244.

- Low-cost digital systems development platform based on the use of FPGAs, used in the practicals of the subject Digital Electronics:
  Saiz-Vela, P. Fontova, T. Pallejà, M. Tresanchez, JA Garriga, C. Roig, A low-cost development platform to design digital circuits on FPGAs using opensource software and hardware tools, Proceedings of the Technologies Applied to Electronics Teaching Conference (TAEE 2020), pp. 299-306

- Development of an electronic circuit simulator used in the practicals of the subject Fundamentals of Electrical Engineering:
  http://robotica.udl.cat/simulador/

The students' assessment of whether the learning methods used have been adequate is satisfactory. In recent academic years, 18/19, 19/10 and 20/21, the trend in this assessment has been upwards, 3.63, 3.80 and 3.84 out of 5 respectively, this last year reaching the average for the Centre (3.83 out of 5). In the same way, students' assessment of the methodologies used is also very similar to the average for the centre and the UdL as a whole (3.76 out of 5 in the 20/21 academic year), and remains in the same line as the previous years.

BACHELOR'S DEGREE IN ENERGY AND SUSTAINABILITY ENGINEERING

A wide variety of teaching methodologies are applied, including lectures, problem solving, practicals, group work, case studies, project development, visits, lectures, written assignments, problem-based learning, and flipped teaching. The specific methodologies used in each of the subjects can be consulted in the teaching guides. The choice of one or another methodology is intended to help students achieve the learning outcomes of the subject and depends on factors such as the theoretical or applied nature of the subject, or the year in which it is taught.

Students' familiarization with academic research and writing plays a vital role throughout the GEES training programme and particularly in the optional training modules and degree final project (TFG). In this sense, it should be noted that for the completion of the TFG, students must investigate the issue posed, gathering and interpreting relevant information, apply their knowledge and write a professional document in which the work carried out is reflected.

In relation to student satisfaction with teaching methods, the surveys for the 2020-21 academic year (only surveys with a minimum of 3 responses are considered) score equal to or greater than 4 points out of 5 (very satisfactory) for 53% of the subjects, 21% score between 3 and 4 points (satisfactory), 10% between 2.6 and 3 points (satisfactory with recommendations for improvement), and 16% score less than 2.6 points. It is concluded that, in general, there is a high level of student satisfaction with the methodologies used for teaching.

Criterion 2.4 Support and assistance

The academic and professional guidance that the School offers to students was rated very positively as "in progress to excellence" in the previous 2019 accreditation, highlighting the good level achieved to date in terms of advice, assistance and support for learning received by students.

The mechanisms through which the EPS satisfies academic orientation are the Centre's orientation and tutoring Plan, called in the UdL "Acompanya-Plan Néstor", the support of the Coordinator, the Mentoring of students, and the actions for recognition of academic excellence (awards and scholarships). On the other hand, in terms of support for professional guidance, the main services and activities are the Job Placement Plan, Tutored In-company internships, Dual Training, the Internationalization of the EPS, participation in the Industrial Doctorate programme. Furthermore, there are various complementary activities devoted to establishing contact between students and professionals in the IT sector, such as the subject "Engineers and their socio-professional environment", specific talks and workshops that take place during the academic year, talks given by professional associations, and awards that they grant to the best TFG, etc.

The main resources devoted to helping, counselling and supporting students are:

- **Class delegates**
  Each class provide one or two delegates. Their role is to represent the interests of the students and facilitate a quick and agile communication channel with professors, the programme coordinator and the head of studies. Furthermore, they are also involved in the Student Council of the faculty.

- **Student guidance and support**
  In each UdL centre, a coordinator of the UdL Acompanya - Nèstor Programme is appointed to organize the reception sessions of the centre in coordination with management, and guide and advise students throughout their learning process.
  The plan designates the coordinator as the student's tutor, who works closely with the coordinator of the degree/master, since s/he acts as a reference figure for the student, should the student incur any incident or need for guidance and support. Therefore, the degree/master's coordinator also plays an important role in student guidance, exercising the functions of advisor throughout the learning process and managing the suggestions and complaints of the students, and directing them towards the relevant areas and services.
  Also, in the mobility processes, the international relations coordinator is in charge of informing and advising the students of the School interested in participating in a mobility programme and participating in their selection.

- **Zero course in mathematics and physics**
  The subjects Mathematics and physics are present in all engineering and technical architecture degrees. These subjects, due to their fundamental and transversal nature, are considered essential for subsequently taking more specialized subjects. Currently,

the access of new students to undergraduate studies is very diverse, and hence the levels of basic knowledge of mathematics are very varied. Thus, the main objective of the course is to review and refresh mathematical concepts already studied in high school, in order to equalize students' levels of knowledge in this area and, therefore, guarantee adequate monitoring of the mathematics subjects in the first year of EPS undergraduate degrees.

- **Autodesk Agreement**: In the 17/18 academic year, a collaboration agreement was signed between the UdL and the company Autodesk whereby, among many other advantages, the educational community has free access to the company's academic version of its applications, among which AutoCAD and Revit stand out in building and architecture, in addition to being able to issue official certificates of the level reached by students during their studies, which allows not only improving their knowledge of these programs but also to be able to prove their level in their curriculum vitae (http://www.eps.udl.cat/ca/noticies/La-UdL-esdeve-Autodesk-Authorized-Academic-Partner/).

- **Repeated teaching in subjects with a lower performance rate**
  Repeated teaching allows a subject taught in one semester to be offered in both semesters. It is designed so that the student retaking the subject can enjoy reinforcement teaching that helps them to achieve the necessary objectives to pass the subject. Some of the subjects of the first semester are associated with repeated teaching in the second semester. Students who have not passed their assessment in February will be able to enrol in this repeated teaching that will give the right to weekly classes and a new assessment of the subject.

- **Incorporation of the inclusion coordinator of the centre**
  The UdLxTothom Programme is one of the services that the UdL offers to the entire university community: students, administration and services staff, and teaching and research staff. It is attached to the Coordination of Social Commitment, Equality and Cooperation and is managed within the University Information and Guidance Unit. Its objective is to promote the participation and inclusion of people with functional diversity, based on the principles of equal opportunities, inclusion and social responsibility.
  The inclusion coordinator of the UdLxTothom programme of the centre is responsible for adapting to and enabling needs derived from situations of disability or specific educational needs of the student.

- **Student Associations; Student Council, IAESTE and LleidaHack.**
  The EPS Student Council is the body for consultation, deliberation, communication and representation of the students of the School, which is responsible for matters related to both academic life and university extension involving students. Its objectives are to ensure that the rights and duties of students are fulfilled as well as to promote their participation in all areas of university life and to ensure that students receive quality academic and human information. In our faculty, this council is very active, and holds periodic meetings with the faculty management team to coordinate, discuss and suggest

actions for improvement.

IAESTE is an international student association, with a very active local committee at the University of Lleida, which aims to provide students who are pursuing scientific and technical careers with the possibility of doing internships in foreign companies and institutions during their training at the University.

LleidaHack is an association mainly comprising students and alumni of the faculty, whose goal is to foster a passion for technology. They organize different activities such as the HackEPS programming competition, the TechMeetings, to which they invite experts to present novel ICT topics in a very informal environment, they organize workshops, talks to secondary and high schools, and even participate in the Technovation programme by mentoring young girls interested in ICT.

- **Dolors Piera Centre for equal opportunities and the promotion of women**. The main goals of this centre are to promote equality policies among men and women as well as motivate the inclusion of the gender perspective in teaching, research and management. In particular, they have developed a protocol to prevent and deal with situations of gender-based violence and sexual harassment, addressing students, PAS and PDI. They have an office which is very visible and accessible for students, located in the classrooms building of the campus.

Since the last accreditation, the EPS has continued to incorporate improvements in the learning support systems, among which the following are specifically devoted to fostering the orientation and job placement of students:

- **UdL-Treball job placement fair**
  UdL-Treball is an annual, one-day fair, aimed at bringing companies and students together. For students, UdL-Treball is a way to find out first-hand about the job opportunities in the region, receive specific guidance on employability and, through the activities that are scheduled, learn the best way to enhance and improve their professional skills. Likewise, for companies, UdL-Treball is a way to make themselves known and show themselves as a real option for a professional future, as well as to have direct contact with the options of joint work and continuous training offered by the University of Lleida.

- **Implementation of Dual Training**: In the 15/16 academic year, Dual Training was launched in the Master's Degree in Computer Engineering, and in 16/17 in the Master's degree in Industrial Engineering, whose operation was regulated through a specific procedure (2_08_EPS_PC008). Dual training allows students to work in a company in the morning, with an employment contract, and attend the university in the afternoon; with academic recognition of the tasks, skills and competences acquired in the company, becoming an essential tool to place master's degree students in the labour market. The School has developed a Methodological Framework for Dual Training to include all the processes related to this methodology, therefore attending to a recommendation from the 2019 External Evaluation Committee (master's degree accreditation).

- **Increase in the number of Industrial doctorates**: The EPS has actively participated in the Industrial Doctorate Programme (http://www.doctorat.udl.cat/es/mencions/doctorat-industrial-00001/) promoted by the Generalitat of Catalonia whose objective is to contribute to the competitiveness and internationalization of industry, reinforce instruments to attract talent and place future doctors in a position to conduct R&D&I projects in a company. Industrial doctorates, in addition to being knowledge transfer bridges, act and contribute to strengthening relations between the industrial fabric and universities and research centres. The EPS has not been left out of this great opportunity and has participated in this programme since its inception. To date, three industrial doctoral theses have already been completed (at the companies Scytl and Ilerfred and Sallen) and another three are in progress (two at Lleida.net and one at PMP).

- **Incorporation of professionals from reference companies on the assessment boards** of the projects in the Learning by doing subjects of the Master's Degree in Computer Engineering. Their participation on these committees is most valuable for students, since they have to present their projects and can receive face-to-face assessment focused on a professional, real-company point of view.

- **Promote contact and relations by students with professional associations:** Professional associations and business associations collaborate closely with the School in different aspects:
    - **Awarding of prizes and distinctions for the best academic records**. These awards are granted annually within the framework of the Alumni dinner (http://www.alumnieps.udl.cat/ca/premis/premi-alumni-eps/).
    - **Awarding of prizes and distinctions for the best TFG/TFM**. These awards allow professional associations to know first-hand the lines of work carried out in the degree final projects (http://www.eps.udl.cat/ca/info_sobre/concursos_premis/). At the same time, it is a good motivation for students to produce an innovative TFG/TFM.
    - **Talks organized by professional associations.** These talks mainly target final year students, in which they present the challenges and possibilities that the labour market will offer them. In turn, they offer students one year of free tuition, which can support them in their professional initiation (http://www.eps.udl.cat/ca/agenda/Xerrada-Sr.-Eduard-Martin-Dega-COEINF.-La-professio-denginyer-informatic-estudis-i-carrera-professional-00001).

- **Increase in international in-company internships**: The School supports, empowers and motivates students to participate in the Erasmus-Internship programme where they are the ones who have to look for the European company where they can carry out their internship. This encourages students to face a new situation in their training, such as having to prepare a CV, a cover letter, and begin to "train" their jump to the labour market, since the situation is very similar to that of having to look for work for the first time. Another option for international internships is through the IAESTE (International Association for the Exchange of Students for Technical Experience). This student association, present in more than 80 countries, has a very active local committee in our

university. Students interested in doing an international internship join the association in their first or second year, so they can apply for an internship in their third or fourth year, or even while taking their master's degree programme.

- **Implementation of the EPS PRO-GATEWAY programme**
  The EPS PROfessional Gateway programme consists of a series of activities that aim to provide professional guidance to students. This programme consists of:
  - Guidance talks given by professional associations
  - Guidance talks and tutoring offered by the degree coordinators
  - EPS company corner: this is a space, physical and temporal, where companies and students can meet and get to know each other, the main aim being for companies to introduce themselves and inform our students of job opportunities, of the possibilities of doing their TFG/TFM, Internships, the possibility of Dual Training, when appropriate. They are usually organized on Tuesdays and Wednesdays. Each session is devoted to a single company, which is allocated the lobby of the faculty so that interaction with students is casual and informal. However, due to the requirement of physical attendance, this initiative has been interrupted by the pandemic and it is planned to restart in the 2021/2022 academic year.
  - Speed dating: this dynamic Networking activity consists of conducting quick and concise interviews between students who finish their Bachelor's or Master's Degree and the companies in the sphere of influence. This format favours close and individual contact, exchange and proximity when it comes to meeting the ideal candidate or company. Some activities have been cancelled or reduced as a result of the pandemic, and they are expected to resume and intensify as soon as the health situation so allows.

- **Complementary activities**
  Throughout the academic year, several activities are organized together with companies, whose goal is to promote close contact with the latest projects and technologies used in the professional sector.

  - Hackathon: This activity is promoted by the School and organized by students of the School under the supervision of a teacher. It is a programming tournament in which a group of companies (sponsors) pose a programming challenge or project. Participating students must solve one or more of these challenges. The solutions are evaluated by an expert committee made up of university professors and company experts. The best solution is awarded a prize by the company or sponsor that launches the challenge. This activity is designed to motivate students to solve real programming problems and learn programming technologies, techniques and methodologies, but also to bring companies closer to the university environment and make the companies known among students and encourage their contact. This makes this activity essential to enhance the interaction between the School and students and the surrounding companies and promote participation in joint activities of knowledge transfer, project creation, etc.

http://www.eps.udl.cat/ca/noticies/Inscripcio-oberta-a-la-4a-edicio-de-la-hackathon-de-lEPS-HackEPS-2020/

- Summer course by the company GFT on Mainframe technology held at the EPS facilities that also served to select personnel for this company (http://www.eps.udl.cat/ca/noticies/LEPS-i-GFT-ofereixen-aquest-estiu-un-curs-gratuit-en-tecnologia-Mainframe/).
- Course at the UdL Summer University offered by the company Starloop in collaboration with the EPS on video game technology (http://www.eps.udl.cat/ca/noticies/Lliurament-dels-diplomes-als-participants-del-Curs-de-Videojocs-per-a-la-inclusio-social/).
- Visits to reference companies such as GFT, Minsait, EURECAT, BonArea, Alter Software, STRATESYS, Alier, San Miguel-Mahou, Romero-Polo, Subcoele, etc… with the aim of guiding students in their transition to the professional world.
- Incorporation of professionals from leading companies and representatives of professional associations in specific talks in the field of EPS master's degree subjects, such as Mr. Guillem Boira, Dean of the Association of Industrial Engineers of Lleida, Mr. Josep Freixanet, GFT manager, Mr. Francesc Guitart, from GFT, Mr. Aitor Corchero, from the EURECAT technology centre, Mr. Jordi Gervás, representing Lleida Provincial Council, and Mr. Josep Clotet, from the Lleida Technology Park, Mr. J. Delfin Peláez, from INCIBE, Mr. Josep Solé, from URSA Insulation, as well as Mr. Francesc Adell, from INTECH 3D, to name just a few.

3. Exams: System, Concept & Organisation

Criterion 3 System, concept and organisation

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

Analysis of training activities

The contents, methodology and development plan of the different subjects can be consulted through the teaching guides available on the degree website. All the teaching guides are updated annually so students can check them before they enrol. The teaching guides are supervised annually in order to verify that the competences are correspond to the subject and that the guide is complete. Due to COVID-19, during the 2020-21 academic year, the undergraduate courses were planned following a blended model, where face-to-face classes in the classroom (medium-sized groups, usually laboratory or exercises) were combined with online sessions (theory groups). In November 2020, and following the government recommendations, we switched to a totally virtual model, maintaining attendance in person for exams and some concrete practicals. In February and March 2021, the blended model was resumed in the first and second years, respectively. Virtual teaching was maintained throughout the academic year for third and fourth year students.

Supervised internships in companies is very positively valued, an example of which is the fact that 64% of the students have achieved a grade of "excellent".

Degree final projects yield a high degree of achievement, with more than half of the work submitted achieving the grade of "excellent". The topics are broad and correspond to the training profile of the degree and include areas such as: mobile applications with some special purpose, the design and implementation of computer systems in companies (for example, the digitization of non-computing companies, the implementation of e-business, ...), and those related with each of the research groups: distributed computing, human-computer interaction, information security and artificial intelligence. We emphasize that some degree final projects are carried out with external professional co-supervisors related to the student's internship, which implies additional enrichment for the student, and usually gives rise to their first job.

In relation to students' overall satisfaction with the subjects, it is observed that in the 2020-21 academic year, 26 out of 45 of the subjects scored for the subject equal to or greater than 4 points out of 5 (very satisfactory), 15 out of 45 scored between 3 and 4 points (satisfactory), and 4 out of 45 scored between 2 and 3 points (satisfactory with recommendations for improvement). No lower evaluations were awarded. In general, a degree of student satisfaction is observed. Every year a meeting is held with the students and the scores are reviewed to improve lower scoring subjects or subjects with some problems. In this situation, the teachers responsible for the subjects scoring the lowest results are requested to analyse possible means of improvement.

Assessment system analysis

The regulations governing the evaluation and qualification of teaching in the bachelor's and master's degrees of the UdL and the Academic framework of the EPS degrees define the GEI assessment system. This system follows a continuous assessment model, where no activity can account for more than 50% of the final grade nor can it be less than 10%. In each subject, a minimum of two exams are usually taken during the weeks dedicated to the mid-term and final exams. These exams cannot be weighted with more than 80% of the final grade. The activities and evaluation criteria for each subject are set out in the teaching guides, and are available before the start of the year. Customarily, each teacher assesses the same parts of an exam, regardless of the group to which each students belongs. This practice ensures more uniform and egalitarian assessment.

The possibility of an alternative assessment with an exam or work that can reach up to 85% of the final grade is also regulated. This alternative is aimed at students who have difficult to attend class, for example because they combine work with studies, long-term illness, etc. Furthermore, exams can be rescheduled for students with extenuating circumstances, such as illness, student participation in university councils, attendance at professional athletic competitions, or the death of a close relative.

At the end of each academic year, after the students have obtained their marks, the curricular evaluation procedure is held. The goal of this evaluation is to compensate some subjects, according to certain requirements and taking into account the student's overall academic progress. This procedure is held by blocks of subjects: the first block corresponds to first year subjects, and the second block corresponds to compulsory subjects throughout the programme (2nd, 3rd and 4th years). The criteria for compensating certain subjects are established in the Curricular Qualification Regulations. The requirements for compensating a subject are that the student must obtain a mark above 4 out of 10, have failed less than 18 ECTS in the block, and the average mark for all the subjects in the block is over 5.25. This system of evaluation by blocks is valued positively since it has prevented students from getting stuck in one particular subject, when they have performed well in the rest of subjects in the block.

Continuous assessment is also applied to the Degree Final Project (TFG) following the different stages. The initial report (10% of the grade), where the student's objectives and planning are reflected, and is evaluated by the supervisor / co-supervisors. The follow-up report (10% of the grade), where the student's progress is monitored, consultations with the tutor, actions taken to alleviate any problems that have arisen, and is evaluated by the supervisor/co-supervisors. The final report (50% of the grade) where all the work done is evaluated, consultation of the state of the art, methods used, volume of work done, innovations applied to the project,... This report is evaluated by the supervisor/co-supervisors. And the final presentation (30% of the grade) is evaluated by the members of the assessment board, which may include the supervisor him/herself. This presentation is public, and aspects such as clarity in the presentation, keeping within the required time limit, the content of the project…, or the answers to the questions posed by the board are assessed.
The assessment of the in-company internship is based on the Regulations of the University of

Lleida and the report issued by the company tutor, the student's report, and the report by the academic tutor, a professor who is dedicated to tutoring specifically for the GEI, is taken into account. The students are required to present their report orally, in order to reinforce their communication skills and respond to the requests of the board. The academic tutors of the different degree programmes sit on this assessment board. Hence, uniform assessment criteria are applied across the different programmes.

Analysis of the evolution of academic performance indicators

For the indicators, if we do not take into account the 2019/2020 academic year, for first year students it is observed that the performance rate in the GEI (passed credits/enrolled credits) has been increasing in recent years:

	2017/18	2018/19	2019/20	2020/21
Performance rate	54.4%	66.5%	70.9%	64.7%

We have gone from a rate of around 55% to a rate of around 65%, and it seems that it is stabilizing.

The success rate (percentage of credits passed with respect to credits that have been examined) has evolved in a similar way:

	2017/18	2018/19	2019/20	2020/21
Success rate	66.5%	75.3%	79.2%	73.4%

As for the 2019/20 academic year, the effect of COVID-19 can be seen in the two rates, which increased by approximately 5%.

The rate of students sitting exams (percentage of evaluated credits with respect to credits enrolled in) has evolved in a similar way to the previous rates:

	2017/18	2018/19	2019/20	2020/21
Rate of students sitting exams	81.8%	88.3%	89.5%	88.1%

Also, as in the above rates, it seems that there is a certain stabilization at 88%, except for the 2019/20 academic year, where there was an increase of 1%.The results for the overall degree, the performance rate (credits passed/credits enrolled) is as follows:

	2017/18	2018/19	2019/20	2020/21
Performance rate	70%	70.6%	77.6%	69.1%

Clear stabilization is seen at 70%, if the 2019/2020 academic year is excluded.

The efficiency rate (Credits enrolled by graduate students in a course / credits of the degree curriculum) is also clearly stable at around 70% (again except for the 2019/20 academic year):

	2017/18	2018/19	2019/20	2020/21
R. efficiency	70%	70.6%	77.6%	69.1%

An endemic data in computer engineering is the dropout rate, since it is the degree with the highest rate of all the degrees in the Spanish higher education system (Report U-Ranking 2019). Therefore, it is positive to see how this rate is decreasing in the GEI

	2013/14	2014/15	2015/16	2016/17
Dropout rate	50%	46.9%	24.1%	38.3%

This rate corresponds to the dropout rate t + 1, which is the percentage of cumulative dropouts over five years, with respect to the number of students in the initial cohort.

It is worth highlighting the effort of the students and the teaching staff to adapt to the blended format of the 2020/21 academic year and that it implies maximum normality for everyone. This can be seen in the rates, which behaved anomalously in the 2019/20 academic year and returned to their expected values in the 2020/21 academic year. Hopefully we can return to face-to-face activity as soon as possible, since non-face-to-face activities involve greater effort for the students, and this affects their performance results.

Among the measures applied to improve the graduation rate, the teaching of Zero Courses in Mathematics and Physics in recent years targeting new students to facilitate their transition between secondary and university education stands out. Another action aimed at improving the graduation rate is the Comprehensive University Tutoring Plan (Acompanya-Plan Néstor), in the context of which tutors are assigned to guide a group of students throughout their journey through the degree. This tutoring plan is usually highly valued by both teachers and students. Repeated teaching courses have also been organized for the subjects of Physics and Introduction to Programming 1. These courses target students who have not passed these subjects in the first semester and have the opportunity to take them again during the second semester with the aim of passing them, thus not having to retake the subject directly the following year.

Computer engineering job placement is one of the highest. According to the AQU study Job placement of Computer Engineering graduates 2020, 96.5% of graduates are working. In fact, this data is related to the dropout rate mentioned above, since companies offer students jobs before they have finished their degree, causing some of the dropouts.

Regarding the satisfaction of the graduates, they score the study plan, the methodology, and the learning carried out with 4 out of 5. It should also be noted that 90% would re-enrol at the University of Lleida.

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING

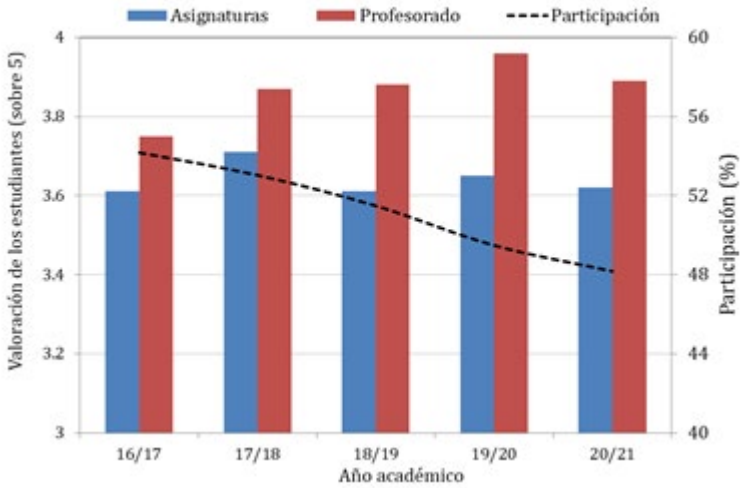
Training activities and assessment system

The different subjects pertaining to the degree curriculum involve the various training activities

that allow the successful acquisition of skills and the achievement of learning outcomes. In turn, the specialist teachers in each of the subjects guarantee that the activities and methodological axes they plan are suitable for the achievement of such requirements and outcomes, in accordance with the academic framework of the Centre. All the information regarding each subject, including a specific section in which the assessment is detailed, is found in the teaching guide. The coordinator and the quality manager of the EPS methodically review the teaching guides of the different subjects to guarantee homogeneity and uniformity (http://www.graumecanica.udl.cat/en/). This review is held twice each year and teachers are required to complete their guide if any shortcomings have been detected.
In March 2020, due to the pandemic situation, the authorities confined the population at home so that, suddenly, all EPS subjects had to change their methodology to an online format once the second semester had started. The teaching staff involved in the subjects affected by this responded in an exemplary manner by preparing materials and changing methodologies to try to ensure the most suitable teaching possible. The EPS, in turn, responded quickly by supporting both students and teachers to face the new situation. It is absolutely crucial to mention that the attitude of the students was commendable, in order to coordinate with the management/coordination to address this unexpected situation in the most effective and efficient way possible. In the 20/21 academic year, now better prepared and taking into account the expected trajectory of COVID-19, blended learning was planned for undergraduate subjects. This was organized by holding the theory groups virtually, while the groups of problems and practicals (reducing them so as to guarantee the safety and health measures established by the government) were carried out in person. The regular assessments included in the academic calendar were scheduled to be held in persona. Unfortunately, in November 2020 the Catalan government recommended that all teaching should be carried out virtually again, except for very specific activities. In the case of the EPS, and of this degree in particular, the exams and certain practical activities were held in person. Subsequently, in the second semester, blended learning was resumed for first and second year students of the degree, while for the third and fourth year students, the virtual model was kept in place until the end of the year, following the recommendations of the authorities.

Most of the subjects organize their continuous assessment in a similar way, through a series of activities defined and detailed in their teaching guide. There are two particular subjects in terms of conducting the assessment, which are the degree final project (TFG) and the PTE (supervised in-company internship). In both, a series of items and an assessment and follow-up methodology have been established (in accordance with the academic framework) that are adapted to their particularities. As an example, the TFG consists of three assessments that are carried out during the year and are evaluated by the tutor or tutors. These items reflect the follow-up and dedication by the student in their TFG. The three assessments are weighted with a percentage of 70% of the final grade of the TFG (Initial report, 10%; Follow-up report, 10%; Final document, 50%). Once the tutor considers that the content is adequate for an engineering project, a board is appointed that finally evaluates the work according to the student's oral and written presentation, which is public and is duly announced on the web page of the School. The corresponding percentage that is evaluated by the board, made up of three members, is 30%. All the information related to the assessment of the TFG and its procedure is publicly available at: http://www.eps.udl.cat/ca/tramits-secretaria/treballs-de-final-de-grau-master/diposit-lectura-tfg-tfm/.

In general, the students' opinion of the learning support systems/virtual campus is very good or excellent, with average scores of 4.0 ± 0.3 out of 5. The subsection of structure of the curriculum, teaching methodology and learning valued by graduate students, remains satisfactory scoring higher than 3 (3.3 ± 0.1). Jointly, EPS-UdL ensure that the teaching and learning methodology is adequate and dynamic. Although the results obtained are satisfactory, these figures are expected to improve in subsequent years. It should be pointed out that the percentage of participation by graduate students is not very high and there is a significant deviation between courses (27.0 ± 16.5%) and, therefore, its extrapolation from sample value to the population may contain significant deviations. An attempt will be made to improve the participation of graduate students in this regard to improve the representation of the data obtained.



The above graph shows the evolution of the students' evaluation of the teaching staff and of the subjects. It can be seen that the average assessment of the different subjects of the degree, including those of the first two years of the common core, is in the [3.6-3.8] points range. With regard to teaching staff, a clearly positive trend is observed over the years, with the average assessment in the 2019/20 academic year practically reaching 4/5. It should be pointed out that the teacher assessment indicator decreased during the 20/21 academic year. This may be due to the particularities of the year linked to the COVID-19 pandemic and the positive trend of previous courses is expected to resume for the 21/22 academic year. The scores obtained in this degree fully coincide with those recorded by the other degrees of the EPS, the average deviation being negligible during this period (-0.08 points). It is worth emphasizing that the degree has subjects of a diverse nature, from the basic block, mainly taken in the first year, to the optional block of the fourth year. This difference is reflected in the standard deviation of the subject and teaching staff assessment averages, with average figures for the period of around 0.5 points out of 5. In general, elective subjects have higher scores than basic training subjects. It is considered in a certain way normal, in a degree of the engineering branch in which students must study subjects of different kinds that provide them with global training, that specialized subjects, with lower ratio of students per group, are perceived more positively than others.

As can be seen, the impact of COVID-19 on students' assessment of teachers and subjects has not implied a significant variation with respect to the previous year. These figures support the good work of the EPS teachers, coordinators and study directors in dealing with the exceptional

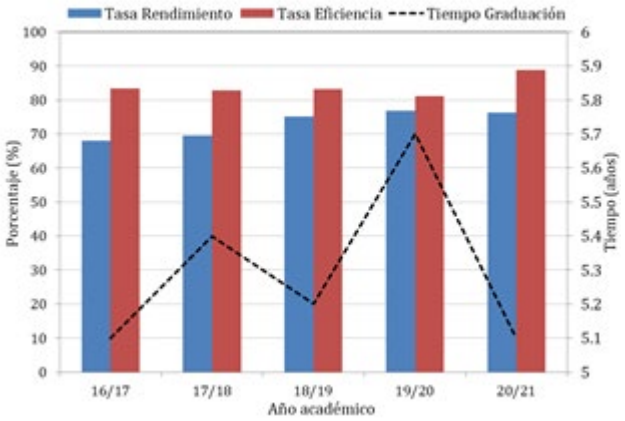
situation experienced. Likewise, the response of the students has, in the same way, been excellent.
Finally, the figure shows the evolution of student participation in the assessment of subjects and teachers. A negative trend in participation is perceived, which does not represent a very high decrease in the figure but has drawn the attention of the EPS team. This is attributed to the fact that for several years the assessment surveys by the student body have been carried out virtually and individually. With the decision to change the format to virtual, it is believed that specific and scheduled periods should be allocated during the academic year for students to respond to the surveys, as was done when classes were carried out in face-to-face format.
The evaluation system, which can be found in each of the teaching guides of the degree subjects, is totally public. In turn, always in accordance with the Academic Framework of the EPS and the Regulations for the Evaluation and Qualification of Teaching in the Bachelor's and Master's degrees of the UdL, the different evaluation items proposed by the teaching team responsible for the subjects are appropriate for the assessment and, therefore, the certification of learning outcomes and competences.
In the specific case of the Degree Final Project and in-company internships, the assessment criteria followed are uniform, regardless of the tutor teaching staff, since they are defined in the academic framework of the EPS. The academic tutors of the internships of the different degrees in the School constitute a team, so they work in coordination and the assessments and procedures are transversal and uniform. This team is stable and is appointed by the management of the School, which reinforces the overall internship process.
Since March 2020, some changes have been made due to the state of emergency and the consequent lockdowns. In some subjects, the teachers made some modifications to the assessment items, agreed to with the EPS management. In addition, the exams were carried out online, so that the teachers' expertise, innovation and good work were used to redefine some of the tests so that the skills acquired by the students could be evaluated in the best possible way. To do so, the tools available on the virtual campus of the UdL were used. As for the TFG, the assessment in the first instance and until the state of emergency changed was carried out online via videoconferencing. Subsequently, the defence was allowed to be carried out in person (with a limited number of attendees) or online. Even so, the evaluation sections defined in the academic framework have been followed without notable incidents. Conversely, given the situation, the in-company internships had to be suspended. The students were offered different ways to carry them out as best they could. In the 20/21 academic year, the assessment was carried out in person, maintaining all the necessary safety measures. Regarding the TFG, the mixed modality has continued, allowing the student body to defend their project in person (if the authorities so allowed) or online.

Academic indicators

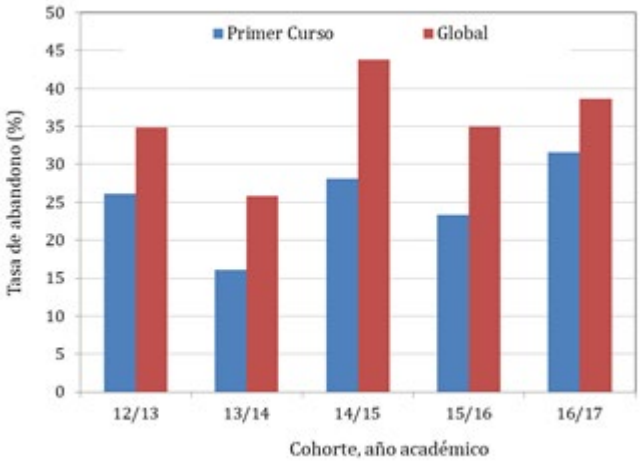
The academic indicators of the Bachelor's Degree in Mechanical Engineering are fully aligned with those obtained in the rest of the EPS degrees.

The performance rate has increased significantly since the 2010-11 academic year when the degree was implemented, standing at 79.2% in the 2020/21 academic year, which is considered very satisfactory given the intrinsic difficulty of the studies. The efficiency rate recorded, in line with the rest of the EPS degrees, stands at 88.8%. Regarding the average graduation time, the evolution fluctuates somewhat, between 5.1 and 5.7 years. Precisely, in the last year the

average time has returned to the value obtained in the 16/17 academic year of 5.1 years. It should be taken into account that it is quite common that students enrol in companies before they finish their studies, due to the high pressure from companies to incorporate technicians, which results in a lower graduation rate. The figure below shows the trends discussed.



The dropout rate per cohort fluctuates slightly, at 35%. This value, in line with degrees in the field of engineering in Catalonia in general, is considered acceptable. In the detail of the dropout rate in the first year, the percentages obtained from the rate are somewhat lower than the global values, and they are also considered acceptable and in line with engineering degrees in Catalonia in general.



Indicators of job placement

The occupation rates, provided by the AQU, for the profession of Industrial Technical Engineer, mechanical speciality, show that 100% of the graduates are working. This figure of full occupation positions the degree in Mechanical Engineering of the EPS as the only one that achieves full occupation among Catalan universities for its graduates. The figures were updated in 2020, given that they had remained static since 2017, and 100% occupancy has been ratified.

In contrast, the assessment of the level of the Occupational Quality Index (IQO)[1] is somewhat lower than the average of the Catalan universities included in the report (68.6 vs. 74.9). This lower-than-average index is mainly due to a lower-than-average gross remuneration (- €328) and the matching of training and skills. General satisfaction regarding the current job of EPS graduates in mechanics is exactly the average for Catalonia (7.8). However, only 67% of mechanical engineers have a permanent or indefinite job compared to the 77% registered among the 4 Catalan universities sampled.

Regarding the level of remuneration, it should be pointed out that the standard of living in Lleida is markedly less economically demanding than that of Barcelona or Girona, which are the other two cities whose Schools are included in the study. Regarding the below-average percentage of fixed or indefinite employment, this is expected to be an isolated case that is corrected autonomously in the following available data.

BACHELOR'S DEGREE IN ELECTRONIC, INDUSTRIAL AND AUTOMATIC ENGINEERING

The evaluation system of the different subjects of the degree is governed by the regulations of Evaluation and Qualification of the UdL Degrees, (http://www.eps.udl.cat/ca/informacio-academica/normatives/avaluacio-i-qualificacio/), approved by the Governing Council of the UdL, and the Academic Framework of the EPS (http://www.eps.udl.cat/ca/informacio-academica/normatives/marc-academic-eps/), approved by the EPS Studies Committee. The teaching staff, in accordance with the regulations and guaranteeing compliance with the defined learning outcomes, decides how the evaluation system will be applied in each of the subjects, which is specified in detail in the teaching guide.

All the teaching guides of the subjects contain a mandatory section that specifies in three languages (Catalan, Spanish and English) the details of the assessment, such as the number of tests, their weight with respect to the final grade, the type, the content evaluated, etc., always maintaining the maximum coherence with the training objectives. It is worth highlighting the work carried out by the teaching staff to keep the teaching guides updated year after year, with a notable effort to carry out adequate assessment that covers all the expected results of the subject. The teaching guides are updated at the beginning of July, and if there are no exceptional incidents, they are not modified throughout the academic year. In this way, the student can know all the details of the assessment before enrolling by consulting teaching guides on the degree website, to which access is open.

As a general rule, according to the Evaluation and Qualification Regulations of the UdL, assessment must be continuous and with a minimum of 3 assessment tests/activities and where no activity can exceed more than 50% of the final grade. Depending on the nature of the subject

[1] Index calculated from four indicators: type of contract, job satisfaction, remuneration and job adequacy. The higher the values, the better the occupational quality (greater stability, satisfaction, remuneration or adequacy). It is shown in the job placement surveys of graduates conducted by the AQU.

and the intended learning outcomes, the types of assessment tests vary slightly, although as assessments must take place progressively and integrated in the academic year, most subjects have various types of assessment activities. The more theoretical subjects, normally subjects of the basic training module, base the bulk of the assessment score on exams or written tests, while the more practical subjects, such as the elective module and the specialization module, resort more to assessment continued through lab work and practicals.

The EPS Academic Framework defines that 10% of onsite hours may be devoted to assessment. These are divided into 3 assessment periods that are repeated each semester: partial exam period in the middle of the semester, final exam period at the end of the semester, and a subsequent resit period. Normally, these periods are used to take written face-to-face tests, although depending on the needs of the subject, they are sometimes dedicated to other types of evaluative activities such as, for example, carrying out or delivering practical work or oral presentations. In all subjects of the degree, the continuous evaluative activities are executed chronologically with the content of the subject taught and offer the student very useful feedback on their knowledge for the progress of their learning. Likewise, each teacher is responsible for ensuring that the student has assimilated the required knowledge, so that students' progress is only deemed satisfactory if the teacher can confirm that the work carried out reaches the educational level required by the degree.

Due to the situation derived from the COVID-19 pandemic, in the 19/20 academic year the assessment of the second semester was carried out completely online. The tools of the UdL's Virtual Campus (CV) were key to delivering these activities and correcting them. Due to the difficulty in guaranteeing adequate examination conditions, without copying, external aids or identity theft, in most subjects the weight of the exams was reduced and the number or weighting of other activities such as exercises, problems, jobs, projects, etc., was increased. These modifications were specified in the teaching guides by introducing an addendum. Thanks to the enormous effort by the teaching staff to adapt their teaching and to the adaptability of the students to the new model, together with the constant meetings and debates of all the parties involved to deal with the situation (students, teachers, coordinators, heads of studies, etc.), the evolution of the course in online format was excellent, with fast and fluid adaptation and without affecting its smooth running. In this last academic year, 2020/21, although it has also been affected by a model adapted according to the health circumstances, alternating online and blended teaching (50% face-to-face and 50% online), the assessment periods have remained 100% face-to-face. This has guaranteed the veracity and authorship of the results of the assessment activities, which, according to the experience of the previous academic year and the feedback received from the students, was the most worrying aspect. If we compare the performance rate of these last three academic years, in the 19/20 academic year it was 68.6% with an increase of + 11.2% compared to 18/19. However, it cannot be identified as a problem in the online assessment, since it is practically the same performance rate as in the 16/17 and 17/18 academic years (69.4% and 70.6% respectively). The decrease in the performance rate in this last year (20/21) is more worrying, since it falls to the lowest value in the last 6 years (58.1%). In Criterion 2.2 the possible causes of this decline are analysed.

Regarding the assessment of the Degree Final Project (TFG) module, the assessment criteria followed are uniform and independent of the tutor teaching staff, given that they are uniquely defined in the EPS TFG Regulation approved by the Study Committee and the Governing Council on 17 December 2020. In this case, the competences of individually documenting and presenting a project have a very significant weight in the assessment. Specifically, during the continuous assessment of the TFG, the student has to deliver various intermediate monitoring reports to validate the work done to date (20% of the grade). At the end, the student presents the final TFG document (50% of the grade) and if it is suitable, s/he is allowed to defend it through a public presentation before a board made up of three members, one of whom must be a professor in the same department, and an external professional might be also included. This defence allows evaluating communication skills and, together with the work report, accounts for an important part of the final grade (30%). During these last two years, exceptionally due to the pandemic, the presentations have been given online through the videoconference tool of the CV, guaranteeing public access. The tutor-student follow-up was also carried out mainly via the CV successfully.
With regard to the assessment of the compulsory external internship module, PTE (supervised in-company internships), there is also a regulation of the Vice-Rectorate of Education approved by the Governing Council on 26 November 2014, which, among other things, defines the basic assessment criteria for external internships. In addition, the EPS has established specific assessment guidelines included in the teaching guide, dividing the weight of the assessment between the student's self-assessment (10%), by means of an assessment questionnaire answered by the student, the company's assessment (30%), by way of an assessment report by the company of the tasks performed, the assessment of the report (40%) by means of a report of internships and a weekly follow-up notebook kept by the student and reviewed and agreed by the company tutor, and finally, the assessment of the presentation (20%) at a public session before a board represented by both the tutor and coordinator of the external internships of the UdL and the company tutor. With this defined assessment system together with the due selection of companies that represent the qualification profile of the degree, resounding success has been ensured in recent years in the benefits provided to achieve the level of training required by the degree. In the 19/20 academic year, due to the health emergency, the internships that could not be adapted to teleworking were temporarily postponed. In this last academic year, the situation has already normalized with no notable incidents.

The EPS contemplates Curricular Evaluation, in the first year and in the final one, giving general information on a student's performance. These grades based on blocks (initial and final) help to monitor the evolution of each student's learning to detect any permanence problems that may arise and, if necessary, compensate some subjects according to the criteria defined in the Curricular Qualification Regulations approved by the Governing Council of the UdL on 15 June 2017 (http://www.eps.udl.cat/ca/informacio-academica/normatives/qualificacio-curricular/). This system of assessment by blocks has continued to be applied in recent years since the last accreditation and its results are valued very positively, since they help to treat exceptional cases of students who are hindered in a specific subject and guarantee progress in the appropriate time, protecting those with a high risk of dropping out.

Academic data for the last 4 years show that the degree dropout rate varies slightly between 19.5% and 22.7% in the 1st year. It does not reflect a rise in abandonment as a result of COVID-19. Furthermore, the dropout rate is slightly lower than the overall dropout rate of the UdL in the 19/20 academic year (29.5%). Regarding the gender perspective, dropout from the GEEIA in the 1st year tends to be more significant in men (21.1% compared to 17.6% in women). The efficiency rate of the students (ratio between credits of the degree and credits actually enrolled) in recent years continues to remain at very good, which indicates that, in general, students pass the assessment requirements designated by the faculty. In the 18/19 academic year there was a subtle rise to 86.3% efficiency rate, but in the 20/21 academic year it has returned to similar values to previous years (82.6%). Regarding this indicator, the gender perspective does not show any clear trend. Regarding the average qualification of the graduate students' record, it has remained stable since the implementation of the degree with variations between 6.25 and 6.46 out of 10. Segregation by sex shows a constant balance according to their average marks.

In relation to student satisfaction, the surveys show a high satisfaction with the evaluation system used. In the 20/21 academic year, among the 31 subjects that make up the degree, 14 (45.1%) have a score for the evaluation system higher than 4 points out of 5, 12 subjects (38.7%) have received scores between 3 and 4, while the remaining 5 (16.1%) have the lowest scores between 2 and 3 points. These ratings are remarkable, and they have continued this good performance in recent years. It is worth pointing out that for subjects with the lowest scores, the teachers have been instructed to analyse the situation and plan actions for improvement. It should be noted that the evaluations of the previous year when the online evaluation format was in place (19/20 academic year), the student satisfaction was even higher with a total of 20 subjects of the degree (64.5%) scoring more than 4 out of 5. This very good reception by the students is possibly due to the fact that, being online, continuous assessment was further promoted through the completion of assignments and projects, reducing the weight of written tests, some of which were transformed into questionnaire-type exams through the CV.

BACHELOR'S DEGREE IN ENERGY AND SUSTAINABILITY ENGINEERING

Analysis of training activities

The contents, methodology and development plan of the different subjects can be consulted through the teaching guides available on the degree website (http://www.grauenergiaisostenibilitat.udl.cat/en/). All teaching guides are updated annually before the start of the academic year.

Due to COVID-19, during the 2020-21 academic year the undergraduate subjects were planned following a blended model, where in-classroom teaching (medium groups) was combined with online classes (theory groups). However, as in all Catalan universities, as of November 2020, virtual teaching began, maintaining attendance in person for practicals and exams. In February and March 2021, the blended model was resumed for first and second year students, respectively. Virtual teaching was maintained throughout the academic year for third and fourth

year students. The transition to the virtual model was carried out efficiently and successfully, thanks to the effort that both teachers and students devoted, and has been deployed with no incidents worthy of mention.

In the 2020-21 academic year, with the implementation of the fourth year of the degree, the first students of the degree have carried out their in-company internship (PTE) and degree final project (TFG). In relation to the PTE, it should be pointed out that students who wish to obtain a mention must take the PTE in a company in one of three proposed fields: Energy Installations, Sustainable Construction, Environmental specializations. Students who have taken the PTE this year have opted for the Energy Installations specialization, doing internships in companies in this field. The implementation of internships at GEES is valued very positively, an example of which is the fact that 83.3% of PTE students have obtained the grade of 'excellent', much higher than the usual 'excellent' percentages in the PTEs of the other industrial bachelor's degrees. Regarding the TFG, the proposed topics fully correspond to the GEES training profile and include areas such as energy efficiency, renewable energies, energy storage, refrigeration systems, etc. All these areas correspond to the research lines of the teaching staff of the degree. It should be noted that some of the TFGs are carried out with external co-supervision by professionals or research centres, which implies additional enrichment for the student. In relation to the global satisfaction of students with the subjects, it is observed that in the 2020-21 academic year, 37% of the subjects scored (average mark of the questions about the subject) equal to or greater than 4 points out of 5 (very satisfactory), 37% scored between 3 and 4 points (satisfactory), 10% between 2.6 and 3 points (satisfactory with recommendations for improvement), and 16% scored less than 2.6 points. Therefore, in general, high student satisfaction is observed. A follow-up is made of the cases in which satisfaction is lower than expected, with a view to improving in successive academic years.

Among the improvements applied throughout the period analysed (academic years 2017-18 to 2020-21) the acquisition of a set of didactic laboratory equipment that will allow the performance of new practicals in the fields of energy and sustainability stands out (set out in Criterion 4.3)

Assessment system analysis

The evaluation system complies with the criteria established in the "Regulations for the Evaluation and Qualification of Teaching in Bachelor's and Master's Degrees at the University of Lleida" (http://www.udl.cat/export/sites/universitat-lleida/ca/udl/norma/.galleries/docs/Ordenacio_academica/Normativa-davaluacio-i-qualif.-graus-i-masters-UdL-Acord-_33-CG-18-2-2020.pdf) and in the Academic Framework of the EPS Degrees (http://www.eps.udl.cat/export/sites/Eps/ca/.galleries/DOCUMENTS-Normatives/Marc_Acadxmic_dels_Graus_EPS_DEFINITIU.pdf). It is a continuous assessment model, where no activity can account for more than 50% of the final grade and none can account for less than 10%. In compulsory subjects, a minimum of two written exams is usually taken during the weeks set for this purpose in the academic calendar and where these tests cannot weigh more than 80% of the final grade. These exams are complemented by other activities that vary according to the subject, adapting in each case to its typology (internships,

external visits, exercises, tasks, etc.). The activities and assessment criteria for each subject are public and can be consulted by students in the teaching guides, available before the start of the academic year. The continuous assessment system has the advantage of allowing monitoring the student's learning process, progressively certifying the results achieved and facilitating the correction of the points that could be improved.

Although, as a general rule, the type of assessment is continuous, the possibility of an alternative type of assessment is regulated, designed for students who combine studies and work, in which an exam or task may account for up to 85% of the Final grade. The exam calendar is approved by the Study Committee and is published on the School's website before the start of the year (http://www.eps.udl.cat/ca/informacio-academica/horaris-i-calendaris/calendaris-dexamens/). The exams are distributed in such a way that the subjects of the same year are examined on different days. In addition, and taking care of those students who take subjects from several years, time overlaps between degree exams are avoided. Once the exam grades have been published, students have the right to review the results achieved together with the professor, as indicated in the "Regulations for the Evaluation and Qualification of Teaching in Degrees and Masters at the University of Lleida" previously mentioned. In case of disagreement, there is still the possibility to request an additional assessment held by an independent panel, which includes students. However, these procedures are rarely required.

As indicated in Criterion 2.1, supervised work placements (PTE) are a 15 ECTS subject taken by all students of the degree. Their assessment is based on the "Regulations for external academic practices of the University of Lleida" (http://www.udl.cat/export/sites/universitat-lleida/ca/udl/norma/.galleries/docs/Ordenacio_academica/Normativa_prxctiques_acadxmiques_externes-Reforma_Normativa_6_revisada_ILxrefosa_modif_26-11-2014x.pdf) and the report issued by the tutor of the organization where the PTEs are carried out, the student's report (description of the tasks carried out, connection with their studies, learning achieved, etc.) and the report by the academic tutor (teacher who monitors the development of the internship). Students present their reports orally to the assessment board, which consists of the academic tutors of the PTE. The PTE evaluation system is valued positively since it includes inputs from the different actors involved in the process.

The Degree Final Project (TFG) also follows a continuous assessment model, where the final grade is the result of four items:

- Initial report (10%). Evaluated if the student has assimilated the objectives of the TFG and has correctly planned the tasks to be carried out.
- Follow-up report (10%). Following the planned schedule, the performance of the work, and decisions that are derived are evaluated.
- Final document (50%). The writing and structure of the report, the difficulty and innovation of the TFG and its implementation are considered.
- Presentation (30%). The ability to convey information, ideas, problems and solutions and to answer questions posed by the board is assessed.

The first three items are evaluated by the supervisor or co-supervisors of the TFG, while the presentation is evaluated by a board made up of three members. As mentioned previously, the continuous assessment of the TFG allows taking into account relevant aspects (planning,

monitoring, etc.) that cannot be considered solely with the presentation.

Analysis of the evolution of academic performance indicators

The GEES performance rate (credits passed/credits enrolled) shows a very favourable evolution since the beginning of the studies in 2017: 43.6% (2017/18 academic year), 63.2% (2018/19 academic year), 71.2% (2019/20 academic year) and 73.5% (2020/21 academic year). The success rate (percentage of credits passed compared to the credits that have been taken in the assessment tests) has evolved in a similar way: 53.5% (2017/18 academic year), 75.9% (2018/19 academic year), 80.8% (2019/20) and 80.2% (2020/21). These rate increments respond to the progressive deployment of the degree. Thus, in the first two years the rates were lower since only the first and second cohorts were active, which usually present lower rates. It is also noteworthy that this last year (2020/21), with the implementation of the fourth year, an increase in the performance rate has continued, despite the fact that the COVID-19 situation has caused the opposite behaviour in other degrees. The current performance rate (73.5%) is similar to that of the other two industrial degrees (2.7% lower than GEM and 4.1% lower than GEEIA), and the difference existing in the first years of deployment of the degree have been substantially reduced. Analysing these results from the gender perspective, in the 2020-21 academic year the performance and success rates in men were 72.8% and 80.9%, respectively. In women, the performance rate was 76.9%, that is, 4 points higher than in men. The success rate in women was equal to their performance rate, which indicates that they have taken all the assessment tests of the enrolled credits.

The results of the first and second years must be analysed jointly with the other degrees in the Common Core of Industrial Engineering Degrees, since students are not disaggregated. When comparing the 2018-19, 2019-20 and 2020-21 academic years, a favourable evolution of all the indicators is observed in the 2019-20 academic year and an inverse evolution in 2020-21. Thus, the rate of students sitting exams achieved values of 81.6%, 89.3% and 78.3% in these three years, the success rate was 64.6, 65.3% and 57.1%, while the performance rate was 52.7%, 58.3%, and 44.7%. These indicators reflect the effects of the change to virtual teaching derived from the COVID-19 pandemic. At this point it should be remembered that first year students must face a process of adaptation to the university context where face-to-face teaching plays a key role. In the 2019-20 academic year, the pandemic had an initial impact om the advanced year. However, the realization of virtual teaching during much of the 2020-21 academic year, may explain the previous results. It is worth highlighting the enormous effort made by students and teachers to adapt to this situation. In the case of teachers, the learning and rapid adoption of a good number of online tools (videoconferences, digital whiteboards, online tests, etc.), as well as the application of new teaching methodologies (flipped class, gamification, etc.) stands out. In this sense, in February 2021 the EPS organized a Workshop on teaching in times of COVID, where the School's teachers were able to share their teaching experiences. However, it is clear that, in addition to the aforementioned efforts, the recovery of the indicators will largely depend on the reestablishment of face-to-face activities.

Data are not yet available on the average graduation time, the expected graduation rate, the

first-year dropout rate, or the efficiency rate. These indicators are calculated at t + 1 = 5 years from the beginning of the degree and only 4 years have elapsed. The report "Evaluation of the Request for Verification of the degree", issued by the AQU (05/05/2017), urged in relation to the graduation rate "to monitor it, proposing measures aimed at raising said parameter in the medium-long term". Despite values related to the graduation rate not yet being available, the performance rate is being monitored, whose favourable evolution has been previously commented on. Among the measures applied to improve the graduation rate, the teaching of Zero Courses in Mathematics and Physics in recent years aimed at new students to facilitate their transition between secondary education and university stands out. Another noteworthy action aimed at improving the graduation rate is the Comprehensive University Tutoring Plan (Acompanya-Plan Néstor), in the context of which tutors are assigned to guide a group of students throughout their journey through the degree.

It is not possible to analyse the job placement of degree graduates, the rate of adaptation, or the assessment of the usefulness of the training received. This is due to the fact that this academic year (2020-21), the deployment of the first year of the degree has been completed and, therefore, information on these indicators is not yet available.

4. Resources

Criterion 4.1 Staff

The different positions for teaching staff (PDI) in the Spanish university system are classified according to being full- or part-time, and permanent or non-permanent, as follows:

- Full-time
    - Permanent:
        - Professor/Contracted Professor (PhD)
        - Senior Lecturer (PhD), (also denoted as TU or Aggregate)
        - University School Senior Lecturer (also denoted as TEU)
        - Permanent Collaborating Lecturer (also denoted as Collaborator)
    - Non-permanent:
        - Assistant Lecturer (PhD).
        - Postdoc positions or visiting positions (PhD)
- Part-time non-permanent:
    - Adjunct lecturer: external professionals from companies
    - Predoctoral fellow: PhD students are requested to give a few lectures in their area of study.

During recent years the University has made an effort to facilitate promotion to higher positions. In the case of the School, the following table shows the calls made since 2018:

	Year				
Position	**2018**	**2019**	**2020**	**2021**	**Total**
Aggregate		8	2	2	12
Professor		6	4	1	11
Assistant Lecturer	1	3	9	1	14
Total	**1**	**17**	**15**	**4**	**37**

These positions are related to the department and the area of knowledge that are detailed below:

Department/Area of Knowledge	**Calls**
Business Administration	**1**
Business Organization	1
Agroforestry Engineering	**1**

Agroforestry Engineering	1
Informatics and Industrial Engineering	**25**
Computer Architecture and Technology	3
Computer Science and Artificial Intelligence	5
Architectural Constructions	2
Chemical Engineering	4
Languages and Computer Systems	5
Thermal Machines and Engines	3
Electronic Technology	3
Mathematics	**6**
Applied Mathematics	6
Environment and Soil Sciences	**4**
Applied Physics	3
Applied Physics (Profile: Renewable Energies)	1
Total	**37**

In the case of Assistant Lecturers, they have 5 years to upgrade to Senior Lecturer. In order to apply for a promotion, candidates must pass an external assessment held by the government, and then pass a competitive selection process which is open to any candidate meeting the conditions.

Along their professional career, permanent teaching staff is submitted to periodic assessments:

- Research track (Six-yearly research increment)
    - Every six years the teaching staff submits a report of the research activity he or she has done over that period: publications, conferences, projects etc. The report is assessed by a committee. If the amount and quality of activity is regarded as sufficient, that period is approved or recognized, and the person gets a salary increase.
    - The concept "live/active research track" is used to denote that a teacher has passed all the possible research tracks at a given moment. Having an active research track is important, since it leads to a decrement in the teaching hours assigned.
- Teaching track (Five-yearly teaching increment)
    - Similarly, every five years the teaching activity is assessed, taking into account the completion of the guides of the subjects, teaching coordination, teaching and assessment methodologies, innovative teaching projects, teaching-related publications, opinion of students, and performance results. Each teacher must present a self-report detailing and analysing his or her teaching, and suggesting actions for improvement, which is completed with the data that the university collects. If this teaching track is passed, the person gets a salary increase.

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

The profile of the teaching staff is considered very appropriate for the characteristics of the degree. 24 of the 26 permanent professors of the degree are doctors. The PhD professors teach 68% of teaching hours. The rest of hours are taught by non-doctor teachers. Most of these staff (91%) are adjunct lecturers, that is, professionals who bring their experience from industry to the classroom.

The subjects of the first years are mostly assigned to full-time PDI, part-time PDI concentrate their teaching in the last years, in which their experience and their knowledge of the latest technologies provide the students with knowledge and feedback of great added value. It must be noted that, in recent years, the number of full professors of the degree has progressively increased. Currently the degree has 6 full professors from the different research groups of the School, doing research directly related with the degree area of knowledge.

The teaching staff is continually evaluated. Their performance and results in both teaching and research are evaluated in periods of 5 and 6 years respectively, known as teaching track and research track. The period from the last assessment to the next one is an active track. All the teaching staff has an active teaching track. Only 3.4% of teaching staff has a non-active research track. These results report excellent quality levels for the standard, since the teaching staff is periodically evaluated, mostly obtaining a positive assessment.

Students' assessment of the teachers is very positive, the results show for the majority of subjects a score higher than 3.5 out of 5. Only one subject fails the assessment by the students (score less than 2.5). In this case, a review process is initiated by the head of studies, the degree coordinator and the teaching staff involved in the subject to identify the aspects that may have given rise to this. In most cases, the low score is usually due to the high level of demand of the teaching staff or because the students consider the workload excessive.

There have been no substantial changes in the assignment of teaching staff to the different subjects. Except for sick leave, the assignments are quite consolidated and do not undergo many changes from one year to another. Regarding the tutors assigned to the TFG, a dual model is followed where the professor provides the TFG proposals that students can carry out and the latter choose the ones that seem most attractive to them. So far, the demand of bachelor's degree theses has been covered by the topics offered by the teaching staff as well as by the topics proposed by the companies, mostly with students doing an Internship.

The details of the data presented in the previous paragraphs are shown below.

Teaching staff by category

	Permanent	Assistant lecturer	Adjunct lecturer	Others	Total
Doctor	24	5	3	1	33
Non-doctor	2		17	4	23

Hours taught

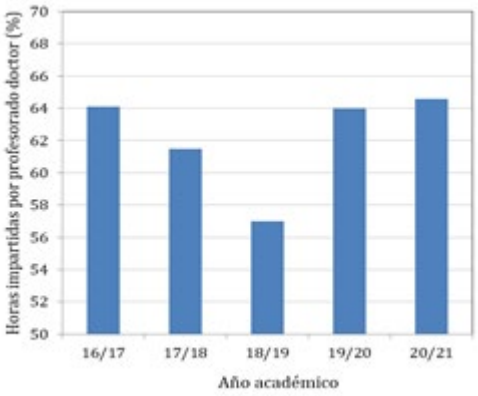
	Permanent	Assistant lecturer	Adjunct lecturer	Others	Total
Doctor	2766	212	145	32	3155
Non-doctor	463		1005	101	1569

Percentage of hours taught

Percentage of hours according to track type	Without track	Non-active track	Active track
research	47.3%	3.4%	49.4%
teaching	31.7%	-	68.3%

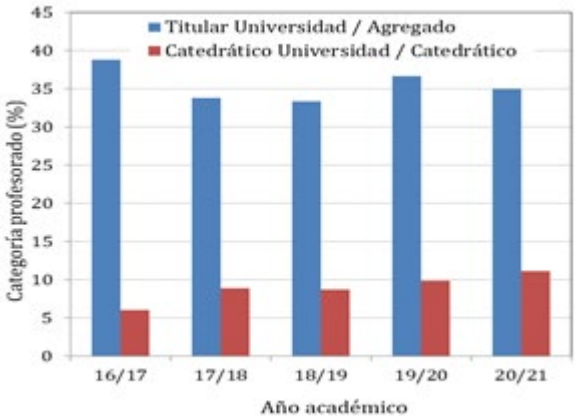
BACHELOR'S DEGREE IN MECHANICAL ENGINEERING

The current teaching staff is perfectly suited to the qualification levels required by the degree. The figures indicate that the category that teaches a greater number of hours is PhD teaching staff. That is, doctors specialized in their respective subjects who ensure teaching excellence. Specifically, currently 65% of the teaching hours are taught by doctor teachers. It is considered very positive that this percentage has been maintained and even increased significantly in this last year. It should be noted that the percentage of the 2018/19 academic year is considered a particularity since in the following year the figure stabilized.



In turn, we would indicate that of the remaining percentages of the hours, approximately 40% correspond to permanent teaching staff (Collaborators or TEUs). The non-permanent teaching staff are devoted practically entirely to subjects of the last years, taught by professionals of recognized prestige from the industrial field, in the figure of adjunct lecturer. Regarding non-doctor faculty members who are not adjunct lecturers, these are fundamentally researchers in training who collaborate by teaching practicals and problem solving supported and advised by their respective thesis supervisors. The percentage of credits taught by researchers in training is around 10% on average in the years analysed, specifically 8.1% in the 2020/21 academic year.

Regarding categories of teaching staff, the largest group is made up of the figures of Senior Lecturer (TU or Aggregate), whose percentage with respect to the total teaching staff remains relatively constant over the years at around 35%. It should be emphasized that in recent years the proportion of full-time professors has increased, either public service or contracted. Currently, professors account for 11% of the degree staff. This figure is considered satisfactory, although it is expected to continue growing in the coming years. The figure of the professor is associated with an assessment that guarantees that teachers have an outstanding teaching career and highly relevant research in their respective areas of knowledge. The aforementioned evolution of both groups of teaching staff is shown in the following figure:



Regarding the gender of these contractual groups, the permanent teaching staff is mostly male. In the Senior Lecturer category, the percentage of women is 13.6% and in the Full Professor category, it is very similar (14.3%). In this sense, it should be mentioned that these percentages vary taking into account the figure of lecturer teaching staff (temporary category of access to a university teaching and research career) in which 50% are women and 50% are men. These figures for permanent teaching staff reflect, to some extent, the data on the number of students taking the Degree in Mechanical Engineering and the degrees in the industrial field of the EPS of Lleida. For example, the percentage of women enrolled in the common core of the industrial branch in the last 5 years oscillates at around 10-15%, which is totally consistent with the percentage of female teachers.

Among the teaching staff of the degree that can request the assessment of the teaching track, a majority has an active teaching track. Specifically, with respect to the hours taught by teachers with an active track, the average percentage from the 16/17 academic year is 65%. This figure provides a guarantee that the majority of teachers are teaching satisfactorily. The Polytechnic School, within the programme to improve teaching quality at the University of Lleida, repeatedly offers teacher training courses, many of them specifically for engineering degrees. These courses ensure that teachers carry out continuous training that allows them to keep up-to-date with teaching methodologies and improve different aspects related to teaching.

In the case of the Degree Final Project (TFG), it is mainly tutored by full-time doctor professors (~ 80%), which ensures adequate continuous attention to the students enrolled in it, as well as in-depth knowledge about the requirements inherent to a TFG. In turn, the subjects of the first two years, and

especially those of the first, are taught mainly by full-time teachers, who have enough time to be able to dedicate the time they may require to the students. In the case of first-year subjects, the percentage of permanent teaching staff is higher than 80%.

Concerning external internships, the possibility of applying the knowledge acquired in the degree in different industrial activities is valued very positively by the student body, obtaining an average score in the last years of 3.94 ± 0.7 out of 5.

To finish the section, it is worth mentioning an important fact, which is the ratio of equivalent students to full-time students per full-time equivalent PDI. This ratio is, on average, approximately 15. This figure reflects attention to and availability towards the student body that can be excellent. In this sense, the students have valued the attention of the teaching staff with an average of approximately 4 out of 5 in the period 16/17-20/21, corroborating a very good perception of the attention received by the teaching staff.

The centre has different tools to monitor the support given to the student body. Among them, mention should be made of the figure of the tutor, who performs a detailed follow-up (groups of about 10-15 students) of the different aspects related to the delivery of teaching and its reception by the student body. The set of tutors and related actions are specifically managed by the coordinator of the tutorial action plan.

BACHELOR'S DEGREE IN ELECTRONIC, INDUSTRIAL AND AUTOMATIC ENGINEERING

The number of teachers involved in the degree has remained stable since the last accreditation of the degree with an average number of teachers of 59.6 ± 1.6 between the 16/17 academic year and this last academic year, 20/21. In recent years, the number of new teachers has stabilized, some directly involved in strengthening the specific subjects of the degree. This has produced an increase in full-time teachers with a total of 44 in the 19/20 academic year, 10% more than for the 16/17 academic year. The current student to teacher ratio is 4.45. If analysed by years, in the 1st and 2nd year, as they are shared with the other degrees in the industrial branch of the centre, the Bachelor's Degree in Mechanical Engineering (GEM) and the Bachelor's Degree in Energy and Sustainability Engineering (GEES), the ratio is higher, reaching 6.85. This ratio increased considerably in the 17/18 and 18/19 academic years due to the inclusion of the GEES in the common core of industrial engineering, going from 3.20 in the 16/17 academic year to 5.24 in the 18/19 academic year. However, for the 3rd and 4th years, where the specific training module and optional training are taught, it is 5.18 and 1.74, respectively, maintaining the order of magnitude of the last years. In the case of the 4th year, the ratio is very low due to the individualized assignment of the teaching staff to the Degree Final Project, maintaining the order of magnitude of recent years. Regarding the academic level of the teaching staff, currently 70.1% are doctors, of whom 75.0% have a permanent position, guaranteeing the involvement of the teaching staff in the quality and improvement of teaching. This good academic level of the teaching staff has been maintained in recent years, with a slight increase of 2 PhD. teachers in the last year. It should also be noted that 10.0% of doctor teaching staff comes from external professionals. This guarantees not only the quality of teaching but also the incorporation of research and professional experience in specialization subjects with a more practical component, better adapting the contents to the current demands of the industry.

In recent years, with the new permanent incorporation of full-time teachers, it has been possible to reduce the external teaching staff from 21 (16/17 academic year) to 16 (20/21 academic year). However, the number of external professors with a doctoral degree has been maintained (5 and 4 in the respective years). This means, on the one hand, that the new teaching staff can become fully involved with the degree, both in management and dissemination issues, as well as in teaching and research, and, on the other, that the academic level of the external teaching staff is increased.

Regarding the labour category, the largest group comprises Senior Lectures (TU/Aggregate category) (24 teachers), which covers 42.1% of the total. In addition, the number of Full Professors (8 professors) has increased significantly, 60% with respect to the previous accreditation (15/16 academic year). This group has a recognized academic level and extensive, proven teaching experience. Currently, they cover 73.2% of Teaching Hours Taught (HIDA) of the degree. Likewise, it should be noted that 84.6% of the full-time teaching staff of the degree have an active teaching track (Five-year period). This has been increasing since the 16/17 academic year, when it stood at 77.5%, which consolidates the excellent track record of the personnel involved in the degree.

Regarding segregation by sex, we can highlight that currently 22.8% of professors of the degree are women (13 women and 44 men), which is far from being egalitarian. However, in recent years the trend has been upward with a 30.0% increase in women compared to four years ago (16/17 academic year). The distribution of the teaching load between women and men who participate in the degree is currently not equitable. In the 20/21 academic year, the average HIDA per teacher and gender was 11.7 HIDA for women and 36.5 HIDA for men. However, in the 16/17 academic year it was practically equal, 43.0 HIDA/teacher and 52.1 HIDA/teacher for women and men, respectively. It is not a specific year, rather a trend of recent years: the number of female teachers is increasing while the HIDA assigned to them is decreasing.

In terms of research experience, generally all permanent teaching staff are affiliated with some research group. In our School there are different research groups in which the vast majority are working on multidisciplinary projects through the Higher Polytechnic Institute of Innovation and Research (INSPIRES, http://inspires.udl.cat/). The University of Lleida ensures that the teaching load of the teaching staff is adequately balanced according to their research involvement through the Academic Dedication Plan promoted by the Vice-Rector's Office for Teaching Staff. This has guaranteed that the indices of scientific production of the permanent staff of the degree in recent years have been excellent. Currently, 64.1% of degree full-time teachers have an active research track (Six-yearly increment). In this last academic year there has been a slight increase with respect to the previous years, where it has remained at around 60% (61% in the 17/18 academic year and 59.1% in 18/19 and 20/21).

Regarding the consistency of the degree with the research and transfer activity carried out by the teaching staff, a large part of the teaching staff of the specialization module are members of the Research Group on Signal Processing and Robotics (GRPSR) at the centre, http://robotica.udl.cat. Many of the activities carried out in this group are applied as practical examples and case studies in teaching. Likewise, the teaching staff of core subjects and transversal subjects with the other industrial degrees of the centre, also belong to research groups within the university related to the degree. For example, the Group on Energy and

Artificial Intelligence (GREiA), https://greia.udl.cat/, and the Group on AgròTICa and Precision Agriculture (GRAP), http://www.grap.udl.cat/, which also provide knowledge in energy and the field of technologies in local industry, mainly agriculture. Students benefit, not only due to the quality of the related teaching, but also the experience of the teaching staff to carry out their degree final projects (TFG), collaborations, and external internships in active research projects related to the degree.

The EPS Head of Studies establishes as a criterion to recommend that the different departments should assign full-time teachers to first year subjects, so that they can dedicate the time necessary to the attention of the students and the follow-up of subjects according to their needs. The department also prioritizes assigning external teachers to the 3rd and 4th year specialization modules so that they can contribute their valuable professional experience in training the student with the most recent techniques applied in the related industrial sector. In this case, these subjects are shared with one or more permanent professors of the department so that they can guide and coordinate the external teaching staff in accordance with the Academic Framework of the EPS.

In relation to the assignment of teachers to the TFG, the Coordinator is in charge of liaising between students and teachers so that the assignment of the subject with teachers and students is the most appropriate possible. The TFG proposal can come directly from the student, as well as from the teaching staff (usually linked to an active research project) or from external companies, for example, where they have carried out their internship. The coordinator assesses the proposals and, if it meets the TFG's competency profile, facilitates contact between tutor and student so that they can agree on the final TFG proposal. In the case of carrying out the TFG with a company, the company assigns an expert professional as a supervisor. Besides, an academic co-supervisor is also assigned, in order to ensure compliance with the competence profile of the TFG. This procedure based on personalized attention is very well received by students during the process of starting their TFG.

In order to promote the quality of teaching within the School and encourage teachers to continue improving in their teaching work, in recent years the School has consolidated the EPS "Joan Gimbert" Teaching Distinction in order to recognize the efforts made by the teaching staff and motivate them to continue working in this regard (http://www.eps.udl.cat/ca/info_sobre/concursos_premis/distincio-docent-eps-joan-gimbert/).

The satisfaction of the students in reference to the teaching level and experience of the teaching staff is very good, as shown by the results of the surveys about the subjects and the teachers which are carried out in each semester. Thanks to the involvement of teachers in improving their experience with continuing training courses, attending educational conferences and promoting educational innovation projects, these indicators have evolved positively in recent years. In the 16/17 academic year, the global satisfaction with the degree professor was 3.78 out of 5, practically the same as the average for the centre (3.77). In the 18/19, 19/20 and 20/21 academic years, the result has progressively improved, achieving scores of 3.84, 4.07 and 4.08, respectively, mainly thanks to the good training and experience that the teaching staff have acquired. It should also be noted that the students highly value the availability of the teaching staff for consultations and tutorials, obtaining a very high average score in this regard (4.21 out of 5).

Concerning academic performance, the performance rate in the specific modules of the degree (3rd and 4th year) has also been increasing until reaching 83% in the 19/20 academic year and remaining stable in the current year. In the case of the 1st year, which is part of the common branch for the industrial degrees of the centre, the performance rate has oscillated slightly, but remains above 50%, apart from this last year 20/21, when it slightly decreased to 46.2%. It is intuited that this decrease has been due to the effects of the COVID-19 pandemic both affecting the adequate pre-university training at high school and at the same time hindering the normal development of the current academic year. However, the performance rate increases in the 3rd year (89.5%), coinciding with the beginning of the specialization stage. This indicates that students have adequately achieved basic training and receive specific training with adequately prepared personnel to cover the required competency profile, as confirmed by the results of the student surveys.

BACHELOR'S DEGREE IN ENERGY AND SUSTAINABILITY ENGINEERING

In the 2020-21 academic year, the increase in hours of full-time teaching staff and lecturers stood out, which came to account for 69% of the teaching hours of the degree (41% in the 2019-20 academic year) and simultaneously, the decrease in hours corresponding to other teaching staff (predoctoral fellows, postdoc positions, etc.) that fell to 15% (43% the previous year). Associate teaching hours remained at 16%. These changes are due, on the one hand, to the introduction of the fourth year, whose subjects are mainly taught by full-time teachers and, to a lesser extent, by adjunct teachers. On the other hand, a teacher in a postdoc position has been promoted to full-time lecturer, covering a significant amount of the teaching of the degree.

It is worth noting the full academic and professional adaptation of the teaching staff of the degree. As an example, all the subjects of the specific training and optional training modules (third and fourth years) are coordinated by permanent professors with degrees in industrial engineering or chemical engineering, specialized in the fields of energy and sustainability. In addition to the permanent teaching staff, the adjunct lecturers contribute their valuable experience serving as a link with the professional environment. On the other hand, predoctoral assistants facilitate the approach of the students with their notable research activity in energy and sustainability carried out by the School groups. It is important to highlight that, beyond the changes mentioned above, a large part of the assigned faculty members is shared with the other industrial degrees of the School and has remained stable over the last few years. The assigned teaching staff is considered sufficient, both in number (46 teachers) and dedication, to serve the students of the degree.

In relation to the satisfaction of students with the teaching of the teaching staff in GEES, it is observed that in the 2020-21 academic year, 58% (average mark of the questions about the teaching staff) scored equal to or greater than 4 points out of 5 (very satisfactory), 37% scored between 3 and 4 points (satisfactory), and 5% between 2 and 3.

Analysing the teaching staff from a gender perspective, it is observed that since the implementation of the GEES in 2017, the total number of teachers has evolved as follows:

2017-18 academic year (total: 21; women: 3; men: 18), 2018-19 (total: 45; women: 6; men: 39), 2019-20 (total: 51; women: 8; men: 43), 2020-21 (total: 46; women: 8; men: 38). Throughout the period analysed, even if the trend is heading in the right direction, a significant imbalance is observed between the number of women and men who teach on the degree. This imbalance is also observed when students enrolled in the degree are analysed (Criterion 1.4). Analysing the teachers of the 2020-21 academic year by categories, it is observed that of the total of 46 GEES teachers, 23 (women: 4, men: 19) were permanent teachers, 15 (women: 2, men: 13) were adjunct lecturers and 8 (women: 2, men: 6) corresponded to other figures (predoc, postdoc, etc.). It is therefore observed that the gender imbalance is manifest in all categories. In relation to the teaching and research merits of the teaching staff, 4 women and 18 men have active teaching tracks, while 3 women and 13 men have active research tracks. Within the personnel standard, the main improvements made throughout the evaluated period (2017-18 to 2020-21 academic years) have consisted of the incorporation of new professors specialized in the field of energy and sustainability. This has allowed, on the one hand, the stabilization of several full-time professors with intense research activity in the areas of the degree. These incorporations are valued very positively since the greater availability of permanent teaching staff and fully integrated lecturers in the degree will help to consolidate it. On the other hand, professionals of recognized experience have been incorporated together with researchers who carry out their doctorates at the School in topics fully related to the degree.

Criterion 4.2 Staff development

In the 2019 accreditation, the support and opportunities offered by the institution to improve the quality of the teaching and research activity of the teaching staff were valued positively. It was considered that the teaching staff has considerable institutional support for carrying out its functions and for the improvement of the quality of its teaching and research activity.

The University and the EPS are interested in collecting the opinion of the teaching staff in relation to the degree. Based on a survey shared by AQU and all Catalan universities, the UdL organizes a survey every two years.

In the following table, it is observed that the most valued aspects of the EPS faculty are:

- Degree of teaching dedication
- The teaching methodologies
- The evaluation strategies
- The organization of the curriculum deployment (groups, schedules, etc..)

	Academic Year	
	2017-18	2019-20
Questionnaires	Average	Average
Degree survey - Teaching staff	3.88	4.07
0. Degree of teaching dedication:	4.24	4.39
1. Degree of teaching dedication in the bachelor's/master's degrees in which you participate (as a % of your overall dedication as a teacher in teaching, research and management).	4.24	4.39
1. General aspects:	3.83	4,12
1. The institutional support (training/consultation/contributions of the central units) for carrying out the teaching activity.	3.65	4.23
2. Teaching coordination in the degrees in which you participate.	3.86	4.10
3. The relevance of internal information mechanisms/systems.	3.90	4.05
4. The relevance of the request to provide evidence that you have received in order to prepare the follow-up reports and the self-report for accreditation.	3.93	4.09
2. Indicate your satisfaction with:	3.87	4.03
1. The admission profile of students	3.44	3.45
2. The structure of the curriculum (subjects and their weight)	3.64	3.94
3. The profile of competences (expected learning outcomes) in the degree	3.82	4.19
4. The organization of the deployment of the curriculum (groups, schedules, etc.)	4.24	4.31
5. The teaching methodologies you have used	4.21	4.37
6. The evaluation strategies you have used	4.26	4.32
7. The work and dedication of students	3.11	3.47
8. The adequacy of the approach, organization and evaluation of the TFG/TFM	3.83	3.92
9. Adequacy of the approach, organization and evaluation of External Internships (if applicable)	4.29	4.17

10. Available teaching resources	4.05	4.20
11. The learning outcomes obtained by the students of the subjects you teach	3.73	4.00
12. Overall assessment of the level of training of the graduate student of the degree in which you participate	3.92	4.04

The institution continues to offer significant support to teaching and research activities. Each year, the University Teacher Training Service offers a Comprehensive University Teacher Training Plan with the aim of improving the activity of university teaching staff as a whole, taking into account that this includes not only teaching and tutorial action, but also research and management-focused courses. Its website is: http://www.formacioprofessorat.udl.cat/. It is worth mentioning, that these courses also include teacher training in gender perspective. In this sense, three of the courses organized last year were:

- Applying gender perspective to engineering and building programmes.
- The gender perspective as a guarantee of quality and equity of university teaching
- Situation and approach to sexual harassment in universities

Also notable is the support received by the teaching staff from the Unit of Support and Advice for Teaching Activity, the structure responsible for advising and supporting the UdL's face-to-face and online teaching-learning processes. This unit promotes teaching innovation processes and the use of information and communication technologies in face-to-face and non-face-to-face teaching-learning processes, focusing efforts on achieving high levels of pedagogical quality. Its website is: http://www.saad.udl.cat/ca/. The support that the teaching staff receives from this unit in the use of the Sakai virtual campus is noteworthy, which is an essential tool in the day-to-day of the subjects. Likewise, it is worth highlighting the language training offered by the UdL Institute of Languages (http://www.udl.cat/serveis/il.html). Given that our Centre makes a clear commitment to the internationalization of our degrees, having these courses is a basic tool for improving the language skills of the teaching staff.

Concerning research, the Vice-Rector's Office for Research and Transfer (https://www.udl.cat/ca/organs/vicerectors/vrt/) has research competencies and is responsible for the different actions (http://www.udl.cat/ca/recerca/).

Each year, the UdL announces competitive grants for the implementation of innovation and teaching improvement projects (https://www.udl.cat/ca/organs/vicerectors/voa/innovacio-docent/). Specifically, in the 20/21 academic year, grants were offered, 5 of which were awarded to professors or EPS teams, who will carry out their projects during the 21/22 academic year. (4_03_MilloraDocencia_202021.pdf)

Teachers have the possibility, through the Erasmus + KA107 Scholarships for teacher mobility, to spend a week at a foreign university with which the UdL has signed an inter-institutional agreement in which they will teach classes and become familiar with the pedagogical experiences that are being developed in the host institution. The grants also offer the opportunity to build international networks of contacts.

On its website, the Vice-Rector's Office for Research publishes all the available grants that teachers and doctoral students can apply for in order to encourage their research. It is worth

mentioning calls devoted to the promotion of research, mobility for research or even for setting up outstanding research project proposals (http://www.udl.cat/ca/recerca/convoca/).

Besides, the UdL has several research support services such as:

- The R&D&I Support Office is a service of the University of Lleida whose main objectives are to promote research activities and technology transfer to companies, responding both to the needs of researchers and as well as to the needs of public and private institutions belonging to the research and innovation system (http://www.udl.cat/ca/recerca/oficina/).
- The GREC (http://www.udl.cat/ca/recerca/grec/) is a research management tool to locate, consult and update the data and curricula of research groups and researchers. The GREC application also offers information on calls for internal and external research grants that may be of interest to both teachers and students (http://www.udl.cat/ca/recerca/convoca/).
- The European Projects Unit (http://www.udl.cat/ca/recerca/oficina/projectes/) is a support and advice tool for the provision and management of projects.
- Scientific-technical Services (http://www.udl.cat/ca/recercaNew/serveis-cientific-tecnics/) are the scientific resources (human and technological equipment) that the UdL makes available to its researchers, other public and private institutions, and companies.
- The Technological Springboard (http://www.trampoli.udl.cat/) supports the creation of technology-based companies and innovative businesses, and the exploitation of intellectual and industrial property.
- The University of Lleida Foundation (http://www.fundacio.udl.cat/) is a non-profit organization that aims to achieve objectives of general interest where the beneficiaries are the university community and society. In particular, it promotes relations between the University of Lleida and the socio-economic and cultural environment, fostering scientific, humanistic and technical research, as well as technological innovation, in relation to companies and the development of society.
- The TECNIO Network (http://www.trampoli.udl.cat/centres_tecnio) supports the creation of technology-based companies and innovative businesses, and the exploitation of intellectual and industrial property.

The research structures of the UdL are the Departments (http://www.udl.cat/ca/centres/), Research Groups (http://www.udl.cat/ca/recerca/oficina/grups/) and the UdL Research Network (http://www.udl.cat/ca/recerca/anella/).

As part of this network, the INSPIRES centre (http://inspires.udl.cat/) brings together all EPS research groups, setting up a multidisciplinary team specialized in the fields of energy management, efficiency, usability, high-performance computing, and solving optimization problems, among other topics related to the field of sustainability and technology. The INSPIRES centre has an administrative support technician for researchers, to facilitate all administrative procedures concerning related research projects, which complements the support of the departments for research. In addition, the INSPIRES centre regularly organizes seminars open to the entire EPS and UdL community in which the research carried out in the different research groups is presented, especially by doctoral students, as well as taking advantage of the opportunity offered by visiting professors and researchers to be able to explain their scientific

production and the training programmes of their universities of origin, and thus explore possibilities for future collaborations.

The improvements and good practices implemented as a result of the internal evaluation process since the 2015 accreditation are described below.

- **Actions to improve interaction with the business environment:**

The School has substantially increased its relationship with the industrial and business environment by promoting the following mechanisms:

- **Implementation of Dual Training**

  Dual training has made it possible to further strengthen ties between the Polytechnic School and the surrounding companies thanks to continuous contact, since this training involves periodic meetings between academic tutors and company tutors, facilitating communication and enabling collaboration in other fields, such as research, participation in degree subjects, the development of joint research projects, etc. Throughout the period considered, numerous visits have been made to companies to explain the dual training project, which have resulted in a total of 24 offers of dual training places for the master's degree in Industrial Engineering and 52 for the master's degree in Computer Engineering.

  At the same time, the early introduction of Dual Training in the EPS has allowed getting involved in the Working Group for the Promotion and Development of Dual Training in the University System of Catalonia. The recent challenges of the Government of Catalonia to build a future based on the Knowledge Society that materialized in the National Pact for the Knowledge Society (PN @ SC: Pacto Nacional para la Sociedad del Conocimiento) calls on universities to develop strategies and actions that promote collaboration between the higher education system and enterprise. More specifically, the Pact suggests the promotion and development of dual training in the Catalan university system, for which it is necessary to:

  - Promote dual training in university degrees with a professional profile through a closer relationship between the university and companies and other organizations, to improve the skills of university students.
  - Develop and apply policies for higher-level dual training, based on the specific context (productive sector - prioritization).
  - Establish a university-company relationship mechanism, to bring together the needs of the professional profiles on the part of the industrial fabric and the productive fabric, characteristic of each territory, and those of the dual study plans.

  In this framework, and to consolidate a Catalan university model of dual training, the Academic Programming and Organization Committee considered the creation of a Working Group, within the framework of the Interuniversity Council of Catalonia (CIC), with the main objective of drawing up and agreeing to the proposals for actions to develop dual training, at the level of the Catalan university system, in order to provide it with mechanisms that facilitate its implementation, both face-to-

face and virtual, as an innovative training option to improve employability and the individual development of students, by increasing the suitability and continuity between the professional world and the academic training of students and streamlining the use of economic resources and enhanced social integration.

The Working Group for the Promotion and Development of Dual Training in the University System of Catalonia is made up of a representative of each University of the Catalan university system, representatives of the General Directorate of Universities and the General Secretariat of the Interuniversity Council of Catalonia, from the Department of Business and Knowledge and a representative from AQU Catalunya. This group is coordinated by Margarita Moltó Aribau, a professor at the Polytechnic School of the University of Lleida.

- **Promotion of Industrial Doctorates**
  The Industrial Doctorate Plan aims to contribute to the competitiveness and internationalization of the Catalan industrial fabric, attract talent, and train doctors for companies within R&D&I projects. The essential element of the Industrial Doctorate process is the strategic research project of the company where the doctoral student conducts his or her research training in collaboration with the University, and is the subject of a doctoral thesis. For universities, industrial doctoral projects are an opportunity to transfer their technology and knowledge to the productive environment and thus strengthen ties with the business environment. The EPS has not been left out of this great opportunity and has participated since its inception. So far, three industrial doctoral theses have been presented (in the companies Scytl, Ilerfred and Sallen) and another three are in progress, two in the computer company Lleida.net and one in the industrialized building company PMP Prêt-à-Porter casas.
  Link to Industrial Doctorates.
  http://www.udl.es/ca/serveis/oficina/Noticies/La-UdL-inicia-els-seus-primers-cinc-doctorats-industrials/
  http://www.eps.udl.cat/ca/noticies/LEPS-present-en-lacte-de-reconeixement-als-Doctorants-Industrials/

- **Renewal of chairs with companies (INDRA)**
  University-company chairs are an effective way of achieving stable cooperation in R&D&I between the University and companies. In this context, the Polytechnic School, through the Indra-Adecco Foundation chair, has developed a set of accessibility tools that facilitate the access of people with motor disabilities to new technologies. Within the framework of this Chair, successful technological solutions such as the HeadMouse virtual mouse and the VirtualKeyboard virtual keyboard have been developed, which have been downloaded nearly 400,000 times worldwide. In addition, REM and APR projects are being developed that can transform the way people interact with computers. The REM project consists of a hardware device that is connected to a computer with a USB connector that will allow controlling the movement of the cursor with the movement of the eyes. This project is designed as an accessibility tool for users who cannot move with their head and, therefore, cannot use HeadMouse. And finally, the APR concept arises from the need for a worker with a disability to be able to carry out their work

electronically, attending meetings or enjoying moments of relaxation with their colleagues.

- **Strengthen the relationship with companies in the Gardeny Technology Park**
  The Lleida Agrifood Science and Technology Park, located in Gardeny, is an ambitious and strategic commitment of the territory in order to promote innovation and technological quality in Lleida companies, favouring the transfer of knowledge and improving the competitiveness of the companies. It is a public consortium owned 50% by the University of Lleida and 50% by the City Council.
  According to 2016 figures, the park houses 1,410 workers and researchers (mainly engineers and university graduates), with a joint turnover of €124.1M and a total investment of €85M.
  Since its inception, the EPS has collaborated closely with the companies of the Park (INDRA, GFT, Eurecat. IFR, Semic, Lleida.net...), both for the relationship of curricular or extracurricular internships of our students and for the development of bachelor's or master's degree theses within these companies. In recent times, these relationships have intensified yet further due to the necessary complicity for the implementation of Dual Training, as well as for the implementation of industrial doctorates in some companies.
  This close relationship with the productive sector is a strength of the EPS that should undoubtedly continue to be consolidated.

- **Specific programme to improve teaching infrastructures and laboratories**

The Campus Vice-Rectorate launched a Call for Teaching Teams (4_04_UdL_Convocatoria_Equipos_Docencia.pdf) during the 2016-2019 period, with the aim of updating, renovating, expanding or even creating new teaching laboratories in the different faculties. In the case of the EPS, the budget allocation has been significant, as shown in the following table:

Year	2016	2017.	2018	2019	Total
Endowment €	72,884	86,663	98,094	44,570	**302,211**

This call has made it possible to equip the EPS with laboratories with very up-to-date technological equipment, in the fields of industrial engineering, computer engineering and technical architecture.
The improvement of the facilities has continued throughout the 2019-2021 academic years. Section 2.4 offers a detailed list of the improvements in infrastructures, laboratories and software.

- **IMPULS programme to promote strategic teaching projects**

The UdL has a Teaching and Training Strategy, approved by the Governing Council in February 2014 and updated in July 2020 (2_09_UdL_TeachingStrategy) that aims to build a differentiated teaching model with its own identity, within the Catalan and Spanish university system. A model whose distinguishing features lie in academic and social prestige, the integral quality of the teaching, and in the guarantee of employability of the training. Among the different actions that this strategy contemplates, the annual Programme of Actions to Promote

the Academic and Social Prestige of Official Studies (Programme IMPULS) stands out. This programme addresses the seven faculties, and its main objective is for the faculties to develop a series of actions aimed at strengthening the academic prestige and social prestige of the different undergraduate and master's degrees. In the EPS, this programme has allowed financing actions such as:

- Promotion of internationalization: international double degrees, WWEPS event of international partners, institutional visits to partner universities, increasing the number of mobility destinations...
- Promotion of scientific-technological vocations: organization of workshops for secondary schools, participation in activities to promote and disseminate technology such as the First Lego League, Ciència al Carrer (science in the street), Mercat de la Tecnologia technology market, etc.
- Invite international teachers to carry out stays and conferences at the EPS.
- Promote the mobility of teachers.
- Improve the School's promotional resources: prepare a promotional video, new brochures, improve its presence on social networks, etc.

- **Administrative support for the INSPIRES Research Centre and its researchers.**
  - The INSPIRES research centre has hired an administrative support technician, whose functions are to help research groups attract research resources.
  - Collaborate in the process of contacting companies interested in carrying out innovation and research with the INSPIRES research groups.
  - Administrative support to the INSPIRES own research centre.
  - Support to research groups in the financial rationale of the research projects developed by the centre itself.

Analysis of changes due to the pandemic: The EPS has kept teachers informed of the updates made by the SIC (Information and Communication Systems) to provide all kinds of tools and services to facilitate the remote monitoring of subjects (recorded classes, videoconferences, questionnaires, forums, tests), as well as the Instructions for the preparation of assessment tests using the test tool and questionnaires of the virtual campus, with the aim of guaranteeing the proper implementation of tests and avoiding incidents or possible system overloads.

Since the beginning of the pandemic, the UdL has offered various online courses to learn and improve virtual teaching methodologies, as well as the use of the tools available on the virtual campus. The follow-up of the courses at the Polytechnic School has been as follows:

ACADEMIC YEAR	2019-2020
Course Name	**Participants**
Virtual teaching	**39**
III CONFERENCE ON UNIVERSITY AND ICT TEACHING ACTIVITY # ADUTIC20: THE MANAGEMENT OF NON-FACE-TIO-FACE TRAINING	15
THE VIRTUAL CAMPUS TOOLS TO CARRY OUT BLENDED TEACHING	20
USING THE UDL VIRTUAL CAMPUS TEST TOOL	3

ACADEMIC YEAR	2019-2020
Course Name	**Participants**
USING THE VIRTUAL CAMPUS VIDEOCONFERENCING TOOL	1
Other courses	**68**
WE LEARN AND TEACH WITH COMMUNITY RESOURCES AND THROUGH ART. HOW WE CAN INCORPORATE IT IN OUR UNIVERSITY	1
CHALLENGE-BASED LEARNING IN THE CONTEXT OF DUAL TRAINING I	1
OPEN SCIENCE: OPEN PUBLICATIONS (IGUALADA CAMPUS)	8
HOW TO WRITE AND PUBLISH A SCIENTIFIC ARTICLE	1
HEALTH AND WELL-BEING EDUCATION	4
TOOLS FOR INTERVENTION IN GENDER-BASED VIOLENCE IN THE ACADEMIC SETTING	1
INTRODUCTION TO MINDFULNESS	2
INDEST SCIENCE DAY: INSTERDISCIPLINARITY IN THE SOCIAL SCIENCES AND THE HUMANITIES	3
CONFERENCE ON ACTIVE TEACHING TECHNOLOGIES AND METHODOLOGIES AT THE POLYTECHNIC SCHOOL AT THE IGUALADA-UdL UNIVERSITY CAMPUS 19/20	17
CONFERENCES FOR COORDINATORS OF TRAINING PROGRAMMES (DEGREES)	6
CONFERENCES FOR COORDINATORS OF TRAINING PROGRAMMES (MASTERS)	1
EUROPEAN PROJECTS. HOW TO WRITE A HORIZON 2020 PROPOSAL FOR RESEARCHERS WITH PREVIOUS EXPERIENCE IN COMPETITIVE PROPOSALS	6
EUROPEAN PROJECTS. FUNDING, HORIZON 2020 PROGRAMME AND ADMINISTRATIVE AND FINANCIAL ASPECTS FOR BEGINNERS	4
WHAT CAN THE LIBRARY OFFER TO THE NEW EPS TEACHERS ON THE IGUALADA CAMPUS	2
COMPETECS SEMINAR: APPLICATION OF THE OBSERVATIONAL METHODOLOGY IN COMPETENCE-CENTRED RESEARCH	1
EMOTIONAL EDUCATION WORKSHOP FOR HEALTH AND WELL-BEING	1
ROUND TABLE: FLIPPED CLASS USE EXPERIENCES AT UDL	9
Total	**107**

Academic year	**2020-2021**
Course Name	**Participants**
Virtual teaching	101
ONLINE TEACHER TRAINING ACCORDING TO THE UNADISTA FRAMEWORK	8
STRATEGIES TO IMPROVE ONLINE ASSESSMENT	4
II TRAINING SEMINAR ON BLENDED CLASSROOMS PROJECT: RESOURCES AND ORIENTATIONS AFTER AN ACADEMIC YEAR OF BLENDED TEACHING. EDUCATION AND ADOLESCENCE CHAIR	1
IMPLEMENTATION OF A TEACHING VIRTUALIZATION PROJECT: USE OF THE VIRTUAL CAMPUS, INTERACTIVE TOOLS AND MOBILE DEVICES	1
IV CONFERENCE ON UNIVERSITY AND ICT TEACHING ACTIVITY # ADUTIC21: THE EVALUATION OF LEARNING IN TIMES OF CONFINEMENT	5

Academic year	**2020-2021**
Course Name	**Participants**
CONFERENCE ON ACTIVE TEACHING TECHNOLOGIES AND METHODOLOGIES AT THE HIGHER POLYTECHNIC SCHOOL AT THE IGUALADA-UdL UNIVERSITY CAMPUS 20/21	17
THE VIRTUAL CAMPUS LESSON TOOL	2
THE KALTURA TOOL, VIDEO STREAMING ON THE VIRTUAL CAMPUS	16
LET'S TALK ABOUT VIRTUAL CAMPUS TOOLS: LESSONS, FORUMS AND TESTS	3
USE OF THE TEST TOOL OF THE UdL VIRTUAL CAMPUS	3
VIRTUAL WORKSHOP ON TEACHING IN TIMES OF COVID AT EPS-UdL 20/21	41
Gender perspective	19
APPLICATION OF THE GENDER PERSPECTIVE IN TEACHING: FIELD OF ENGINEERING AND ARCHITECTURE	9
THE GENDER PERSPECTIVE AS A GUARANTEE OF QUALITY AND EQUITY OF UNIVERSITY TEACHING	4
SITUATION AND APPROACH TO SEXUAL HARASSMENT IN UNIVERSITIES	6
Others	104
COMPOSITIONAL DATA ANALYSIS IN SOCIAL SCIENCES	1
ACTIVE LEARNING IN LARGE GROUPS	2
OPEN SCIENCE: PUBLICATIONS AND OPEN RESEARCH DATA	1
HOW TO WRITE AND PUBLISH A SCIENTIFIC ARTICLE	1
HOW TO CARRY OUT PATENT SEARCHES IN FREE DATABASES	6
COMPETENCES AND PEDAGOGICAL TRAINING OF UNIVERSITY TEACHERS	1
MANAGEMENT, CORRECTION AND ASSESSMENT OF TFG AND TFM	4
THE FLIPPED CLASS MODEL: AN ALTERNATIVE TO ONLINE TEACHING	2
THE PROCESSES OF TEACHER ACCREDITATION AQU CATALONIA: READER, AGGREGATE AND PROFESSOR	10
CONTINUOUS ASSESSMENT STRATEGIES FOR LARGE GROUPS	6
STRATEGIES FOR IMPROVING THE WRITING OF SCIENTIFIC ARTICLES IN THE FIELD OF THE SOCIAL SCIENCES	1
STRATEGIES TO IMPROVE PROGRAMMING LEARNING IN ENGINEERING	12
ACADEMIC AND TEACHING MANAGEMENT AT THE HIGHER POLYTECHNIC SCHOOL (EPS) II - DDTEC	3
MENDELEY BIBLIOGRAPHY MANAGER - ADVANCED	1
MENDELEY BIBLIOGRAPHY MANAGER - BASIC	1
MENDELEY BIBLIOGRAPHY MANAGER (IGUALADA CAMPUS)	1
IMPLEMENTATION OF UNIVERSAL SUPPORT MEASURES FOR INCLUSIVE LEARNING WITH ALL STUDENTS	1
INDICATORS AND METHODS FOR EVALUATING SCIENTIFIC PRODUCTION: SCIENCES	1
INTRODUCTION TO THE USE OF ARCGIS FOR THE PRESENTATION AND ANALYSIS OF SPATIAL DATA	2
THE FLIPPED CLASS AS AN ALTERNATIVE TO DISCONTINUOUS PRESENCE	5

Academic year	**2020-2021**
Course Name	**Participants**
TEACHING DIGITAL COMPETENCES: CHALLENGES AND OPPORTUNITIES IN THE DIGITAL CONTEXT	1
TEACHER-CENTERED TEACHING: IMPROVING EXPOSITORY TEACHING	2
STUDENT-BASED LEARNING	4
LEARNING SERVICE AT THE UNIVERSITY AND THE OPTIMIZATION OF QUALITY IN HIGHER EDUCATION	2
LEARNING-ORIENTED ASSESSMENT: WHAT CAN WE DO TO GO BEYOND QUALIFICATION	2
OPTIMIZATION OF TIME AT WORK	3
EUROPEAN PROJECTS. HOW TO WRITE A HORIZON EUROPE PROPOSAL FOR RESEARCHERS WITH PREVIOUS EXPERIENCE IN COMPETITIVE PROPOSALS	2
EUROPEAN PROJECTS. STRUCTURE OF THE NEW HORIZON EUROPE PROGRAMME, TECHNICAL, ADMINISTRATIVE AND FINANCIAL ASPECTS FOR BEGINNERS	7
DATA PROTECTION	2
PROTECTION, VALORIZATION AND TECHNOLOGY TRANSFER. KEY STRATEGIES AND FACTORS TO KNOW	3
TEACHING RESOURCES IN THE FIELD OF ENGINEERING: INFORMATION RESOURCES AND TEACHING SUPPORT SERVICES (IGUALADA CAMPUS)	3
ROUND TABLE: INTERACTIVE TOOLS TO DYNAMIZE TEACHING	5
ROUND TABLE: EXPERIENCES OF USING GRAPHIC TABLES FOR THE DEVELOPMENT OF TEACHING AT THE UdL	4
EMOTIONS, FEELINGS AND STRESS MANAGEMENT TECHNIQUES	1
NEGOTIATION TECHNIQUES	1
Total	**224**

Criterion 4.3 Funds and equipment

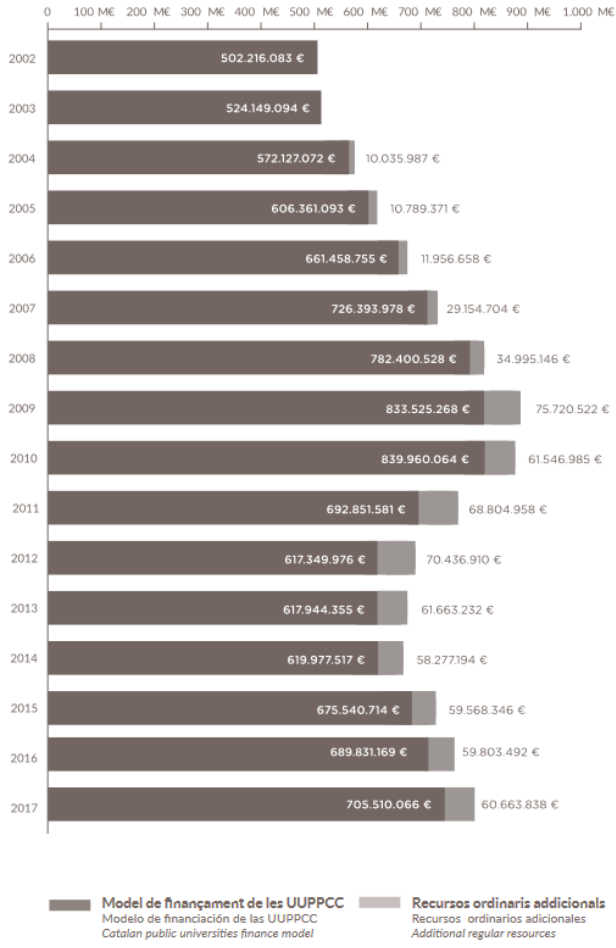
Financial resources

The University of Lleida is one of 7 Catalan public universities that receive funding from the Generalitat de Catalunya. The Catalan government annually sets the public prices for university studies and therefore the basic source of income for public universities. Apart from income from fees, Catalan public universities receive public resources from the Administration of the Generalitat:

- for running costs
- to achieve strategic objectives
- for investments and equipment

The Generalitat of Catalonia, which from 2003 to 2010 had notably increased public funding for university activity, applied significant restrictions during the hardest years of the financial crisis, from 2011 to 2013. As of 2015, it has risen slowly, in 2017 reaching similar levels to 2007.

Figure 1. Evolution of funding in Catalan public universities



Source: Training and teaching indicators of Catalan public universities. Report 2018. ACUP. https://indicadorsuniversitats.cat/wp-content/uploads/2020/08/informe_docencia_2018.pdf.

The evolution of the funding of Catalan universities is reflected in the evolution of the budget of the University of Lleida, which is shown in the following table.

Evolution of the UdL budget. Period 2016-2021

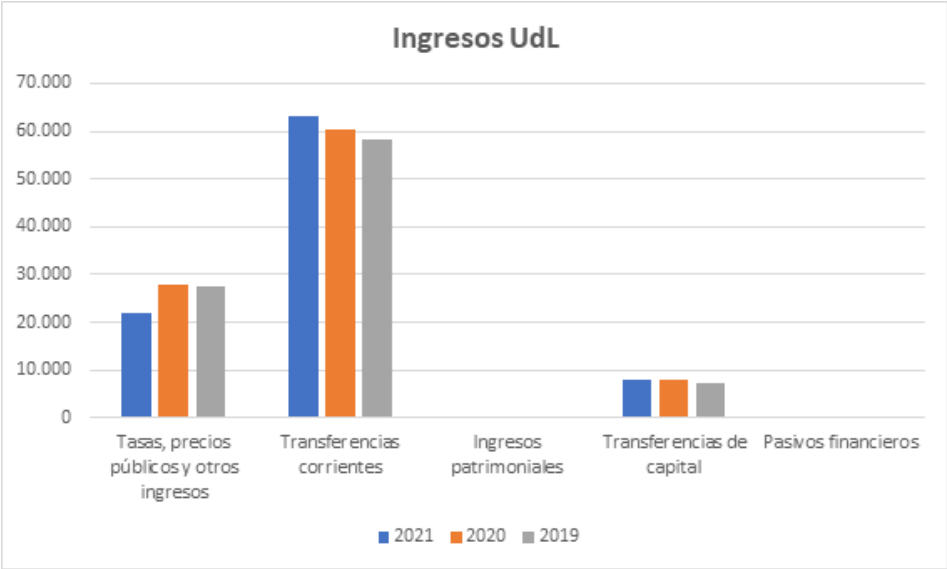
Year	UdL general budget	% Variation
2016	81.351 M (€)	
2017	83.073 M (€)	2.12%
2018	84.871 M (€)	2.16%
2019	93.756 M (€)	10.47%
2020	96.304 M (€)	2.72%
2021	93.180 M (€)	-3.24%

Source: Authors' own taken from UdL budgets

The budget increment that occurred in 2019 was due to the incorporation into the university of a new Campus located in Igualada.

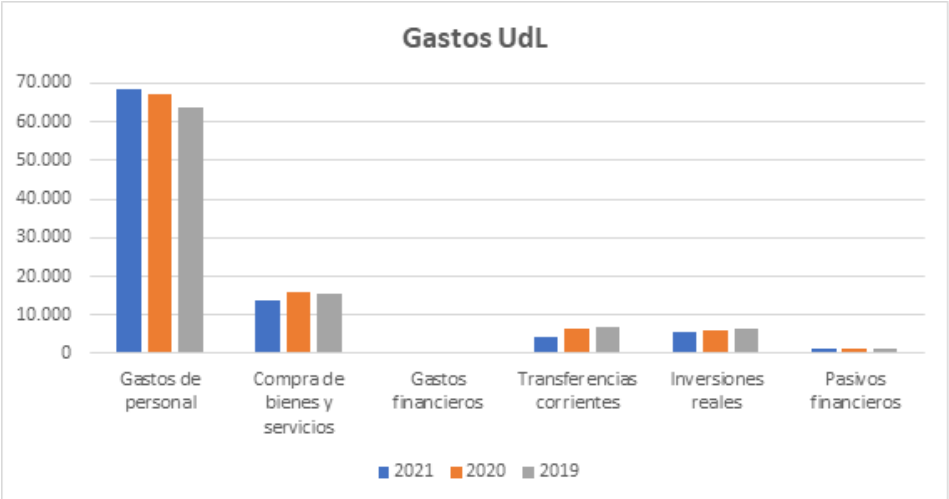
Figure 2 shows the total income corresponding to the UdL for the periods 2019, 2020 and 2021, where it can be observed that more than 60% of the budget comes from transfers from the Generalitat (Current Transfers), while 25% comes from tuition fees.

Figure 2: UdL revenue 2019-2021.



Source: Authors' own based on the UdL budgets for 2020 and 2021.

Figure 3: UdL expenses 2019-2021.



Source: Authors' own based on the UdL budgets for 2020 and 2021.

With this general budget, the University of Lleida covers personnel expenses, ordinary expenses and infrastructures associated with the 7 teaching centres and the different departments and services of the University, as can be seen in Figure 3. Likewise, Figure 3 shows the expenses corresponding to the years 2019, 2020 and 2021. This same Figure shows how personnel costs account for 74% of total expenditure. On the other hand, and in addition, it also distributes the budget, basically for the goods and services chapter, by teaching centre and by department that allows the directorates and deans to draft university policy and undertake strategic actions.

The amount of the budget that is distributed among the centres of the University is divided into three blocks:

- Block A (55%): size
- Block B (35%): funding by objectives
- Block C (10%): funding by programmes

Block A: An amount that the University of Lleida assigns to the different centres according to their size, where the key variables are the number of students at the centre, the number of teachers and the demand for teaching hours.

Block B: Assigned based on the year-on-year evolution of the School performance indicators, which are:

- Efficiency rate
- Dropout rate
- Performance rate
- Number of degrees with more than 30 new students per year

Block C: The result of an agreement reached between the Centre and the vice-rectorate, based on the definition of a series of strategic improvement actions that must be achieved throughout the year. The origin of these strategic actions lies both in the monitoring reports of the degrees, and in the monitoring of the Centre's Improvement Plan.

In this way, Blocks A and B will be assigned and transferred at the beginning of the budget period, while Block C will only be transferred at the end of the year in the event that the Centre complies with the agreements reached.

In the case of the Polytechnic School, the annual budget allocation received from the University of Lleida is shown in the following table:

Budget Allocation to the Polytechnic School. Period 2016-2021

Year	Block A	Block B	Block C	TOTAL
2016	€25,277.68	€14,383.91	€4,513.00	€44,174.59
2017	€24,722.72	€14,563.41	€5,050.00	€44,336.13
2018	€25,947.93	€12,783.43	€6,064.42	€44,795.78
2019	€26,746.71	€15,167.38	€3,182.73	€45,096.82
2020	€26,746.71	€15,167.38	€5,347.00	€47,261.09
2021	€25,747.80	€11,375.54	€4,760.10	€41,883.44

Source: Authors' own based on data supplied by the UdL

This budget is basically dedicated to the chapter of goods and services of the School, such as the rental of equipment (photocopiers and printers), hardware maintenance, the procurement of office supplies, advertising and promotional expenses, conferences, training of faculty, formalities, registrations with professional associations such as deans' conferences, etc.

Apart from this ordinary budget, the Polytechnic School has other sources of funding that are irregular in nature and come from:

- EPS participation in the enrolment of the master's degrees, set at 20% by UdL management
- Fee for extracurricular internship agreements signed at the School and for calls
- Announcements or programmes undertaken by the University rector's team to promote strategic actions.

Additional income for the Polytechnic School. Period 2016-2020

Year	2016	2017.	2018	2019	2020
Master's degree enrolments	€1,915.65	€46,866.23	€10,861.75	€69,171.61	€19,860.91
Extracurricular agreements	€2,827.30	€4,636.41	€5,363.58	€6,000.06	€3,843.66
Special programmes	€25,000.00	€14,266.86	€0.00	€26,333.33	€17,658.00
Cross-disciplinary subject	€1,541.67	€3,843.18	€1,428.40	€2,253.24	€395.30
Repeated teaching	€26,982.82	€26,079.83	€35,598.19	€31,959.82	€33,679.31
Zero courses	€2,853.98	€6,423.30	€4,249.26	€7,905.60	€6,120.00

Source: Authors' own based on EPS budgets.

These additional resources allow the management of the School to carry out strategic actions such as: internationalization, the promotion of scientific-technical vocations, publicizing the Centre and the improvement of teaching infrastructures.

During the 2016-2019 period, the Infrastructures Vice-Rectorate launched a Call for Teaching Facilities, with the aim of updating, renovating, expanding or even creating new teaching laboratories in the different faculties. In the case of the EPS, the budget allocation has been significant, as shown in the following table:

Calls for teaching teams 2016/19 EPS

Year	2016	2017.	2018	2019	Total
Endowment €	72,884.00	86,663.00	98,094.00	44,570.00	**302,211.00**
Centre contribution	25,168.91	13,854.87	14,714.10	6,685.50	**60,423.38**

Source: Authors' own taken from the calls of the EPS

This call has made it possible to equip the EPS with laboratories with very up-to-date technological equipment in the fields of industrial engineering, computer engineering and technical architecture. A detailed account of the improvements in infrastructures, laboratories and software during this period can be found below.

In this sense, from the 16/17 academic year, the EPS management undertook a policy of adapting the School's teaching laboratories to the new undergraduate and master's degrees, as a result of the process of adaptation of the UdL to the EHEA. This was possible, despite the reduction in the budget allocations of the School by the UdL, due to the application of the additional financial resources shown in Table 11 and the remnants of different budgetary years that had been accumulated for this purpose. This has meant an investment in recent years of more than €146,958.24.

The funding of the centre, which originates from public resources, is complemented by contributions from the private sector companies, in the form of sponsorships, or institutions (Lleida City Council, Lleida Provincial Council, Social Council of the UdL, of the UdL Culture Committee and Igualada City Council in 2020).

Income from sponsorships by companies and institutions

Year	Income from public entities	Private sector income	Total Sponsorship Income
2016	€13,844.51	€7,300.00	€21,144.51
2017	€14,373.67	€8,000.00	€22,373.67
2018	€13,959.60	€9,500.00	€23,459.60
2019	€13,513.22	€9,500.00	€23,013.22
2020	€20,244.67	€9,000.00	€29,244.67

Source: Authors' own taken from EPS budgets

These contributions make it possible to undertake extraordinary activities complementary to the strategic actions of the School such as: The First Lego League (http://www.firstlegoleague.udl.cat/ca/), "Technology Market" (http://www.ice.udl.cat/ca/activitats/tecnologia/) and the World Robot Olympiad (http://www.eps.udl.cat/ca/noticies/Emocio-i-Robotica-en-la-5a-edicio-de-la-WRO-Lleida/). It must be said that these activities are basically aimed at promoting a scientific-technical vocation among secondary and high school students.

Regarding the two departments that are attached to the Polytechnic School, which are the Department of Informatics and Industrial Engineering (DIEI) and the Department of Mathematics, they also have a budget allocation that is presented in the following table:

Budgetary allocation of departments attached to the EPS. Period 2016-2021

	TOTAL BUDGET	
Year	DIEI	Math
2016	32,798.87	17,005.78
2017	33,716.48	17,403.99
2018	34,204.23	17,338.87
2019	35,108.83	18,382.87
2020	34,531.11	18,923.30
2021	31,298.33	14,192.48

Source: Authors' own taken from UdL budgets

This allocation is distributed among their professors and is devoted to expenses related to teaching, the purchase of bibliography, renovation of IT personnel infrastructure, ordinary expenses and supplies or assistance to conferences

Finally, it should be noted that the 9 research groups of the School, all of them classified as Consolidated Research groups by the Generalitat de Catalunya (http://www.eps.udl.cat/ca/recerca/grups-de-recerca/#sections-tab-9), have their own funding sources, obtained from competitive research calls, which allow them to fund expenses associated with the research field.

Inputs		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
Special actions	34	2	1	1	0	1	0	2	0	0	0	**41**
Research grants	225	26	22	19	19	3 4	21	16	13	10	2	**407**
Contracts	604	43	33	3. 4	31	22	44	124	238	189	122	**1484**
Aid to Consolidated Groups	8	0	0	9	0	0	9	0	0	0	0	**26**
Infrastructures	10	0	0	0	0	0	0	0	0	0	0	**10**
European projects	12	2	4	2	1	2	2	1	0	2	0	**28**
Research projects	81	2	5	4	4	7	7	6	7	8	0	**131**

Source: GREC (http://webgrec.udl.cat/)

These groups belong to the INSPIRES Research Centre (Institut Politècnic d'Innovació i

Recerca en Sostenibilitat), http://inspires.udl.cat/, which receives funding from the UdL, as shown in the following table:

Published INSPIRES funding budget. Period 2017 - 2020

Year	INSPIRES Budget
2017	40,000.00
2018	55,000.00
2019	50,000.00
2020	44,341.00

Source: Authors' own based on data from the Vice-Rectorate for Research.

The available material resources and teaching infrastructures of the centre and university were valued very positively as "in progress to excellence" in the previous accreditation of 2019.

The teaching classrooms, laboratories and offices, distributed mainly between the two EPS buildings, the EPS central building and the CREA (Centre for Research in Applied Energy) guarantee the proper functioning of the degrees taught. Complementary services such as the integrated Common Spaces Management system (GEC), the Information and Communications Systems Area (SIC), the Library and Documentation Service (SBD), Sakai Virtual Campus, among others, allow us to offer all stakeholders involved in the learning process all the necessary resources for its quality implementation. Detailed information on these resources was described in depth in the 2015 Accreditation.

Both the 2015 and 2019 accreditation processes favourably appraised the infrastructures and resources of the faculty, such as the teaching facilities, laboratories and the SAKAI virtual campus. In particular, the integrated space management system GEC was positively valued, which remains active and is crucial to optimize room scheduling on a campus shared by three different faculties. Since the last accreditations, all these resources have been kept in place and improved.

The actions carried out to improve and expand the teaching and research laboratories since 2015 are set out below.

- **Renovation and updating of laboratory equipment:**
  - **14/15 academic year**
    - **Metallographic microscope. Mechatronics Laboratory (CREA)**. In order to teach the practices of the new optional Energy block corresponding to the Master's Degree in Industrial Engineering (Electric machinery in Industry and Analysis of Industrial thermal equipment), a Flir E4 infrared thermographic camera was purchased, a bench with electric motor and brake hysteresis and a variable speed ACU 0.37KW. Likewise, a TECMICRO metallographic microscope was also purchased to improve the practicals of the GEI students and some analogue modules per automaton and a linear/isopercent regulation valve.
    - **Material for heat transfer practicals. Thermal Engineering Laboratory**

(-1.05). In order to carry out heat transfer practicals for GEM, GEEIA and MEIND students, commercial equipment was acquired for this purpose.

- **Mobile laboratory of embedded systems.** For the improvement and adaptation of the laboratory material of this laboratory, used by the MEInf students, as well as in various promotional actions of the EPS, we proceeded to purchase 20 Arduino UNO boards, 20 ADXL335 accelerometers, 20 ultrasound sensors, 15 mice and 15 keyboards.
- **Bending device for prismatic specimens. Materials Laboratory - Building (CREA).** In order to improve the equipment of CREA's materials-building laboratory, a bending device for prismatic 15x15x60 specimens, Model CONTROLES, was purchased, as well as a complete set of work tools for the workshop located in the Materials laboratory.
- **Two Emotiv helmets. UsabiliLAB Laboratory (3.02).** In order to conduct new practicals with the discipline of Brain-Computer Interaction in the degrees of the GEI and the MEINF 2 Emotiv helmets have been acquired.
- **Laboratory instruments. Mechanics Laboratory (-1.04).** Up to 5 3D printers with FDM technology have been acquired to carry out additive manufacturing practicals in the subject of "Advanced Manufacturing Systems". In addition, these printers make it easier for students to produce prototypes that have been designed in their TFM. On the other hand, laboratory materials and instruments were also purchased for the study and analysis of shaft balancing and also for the realization of an experimental equipment to analyse the flexibility of shafts and resonance speeds, and to be able to compare them with the results obtained by simulation. of finite elements using the CREO programme.
- **Computer material. Electronic Control Laboratory (2.06**). We proceeded to purchase 2 BEEP TLM0596 computers with LG 19.5" screen with keyboard and mouse.
- **Computer equipment and improvement of facilities. Computer Laboratory (3.05).** Installation of 21 PCs with Windows 7 Professional 64-bit and Linux Ubuntu 12.04LTS operating systems and a 21" widescreen monitor, and a new 2.20 m electric screen to replace the old 1.80 m manual screen. The wiring of the classroom projector has been enhanced incorporating HDMI cable and a new connection box. Finally a sound system with self-amplified speakers was also assembled.
- **Improvement of facilities. Alcatel classroom (1.02).** The structured cabling of the extended workstations in the classroom was carried out so that the students of the GEI, GEEIA and MEINF can have access to the equipment of the different racks.
- **Stereo. Classroom 1.04.** Sound equipment was installed in classroom 1:04 of the EPS, which was the only classroom in the School where there was none.
- **Improve computer equipment. Degree Room (2.03).** The old monitor on the main table in the Graduation Room was replaced with a 19.5" reclining ACER LCD touchmonitor.

- **15/16 academic year**
  - **3D printing and hydraulic bench. Equipment for the mechanical**

laboratory. Equipment for the manufacture of pieces for 3D printing was acquired, which allows students to produce their designs carried out in subjects such as Graphic Expression III and Machine Design, in addition to learning a leading technology. This equipment consists of a milling machine, a 3D printer and the parts of a second 3D printer to build it in the laboratory, as well as transportation to and from the supplier for defective ones. A hydraulics bench was also purchased to carry out hydraulics practicals. This equipment allows students to become familiar with real oleo-hydraulic equipment.

- **Experimental equipment (thermal power plant and linear heat conduction) for the Thermal Laboratory and facilities.** One of the most used cycles in the industrial world, both in thermal power plants and in cogeneration systems is the Rankine cycle. With the aim of learning about this cycle and so that our students can study it experimentally, a steam power plant with a steam engine was acquired. Along the same lines, the practice "Linear heat conduction" was purchased with which students can experience the phenomena of heat transfer by conduction in linear systems.
- **Total surveying station for the Building Laboratory.** Purchase of a Leica Robotized Total Station TRCP1203R100 with automatic prism search "Power Search". The "Total Leica" station is robotic equipment to carry out surveying field practicals to be able to carry out topographic surveys with a single operator. This operation has been 50% co-funded with the ETSEA centre of the UdL and is used basically in the bachelor's degree in Technical Architecture and Building.
- **Blower Door Test Equipment for the Building Laboratory.** Acquisition of equipment for the measurement of air infiltrations and thermofluxometric analysis. The practice "Air infiltration analysis" equipment was acquired to measure air infiltrations through doors and windows in an existing building, by means of the Blower Door Test. The Blower Door Test measures the tightness of a building, the air tightness, that is, it measures the energy efficiency of buildings. It is used to carry out energy audits of buildings and is used both in the Technical Architecture and Building qualifications, as well as in Mechanical Engineering, specializing in Sustainable Construction.
- **Improvement of the material of the Electronic Teaching Laboratories 02.05 and -1.03 EPS.** To improve these laboratories, the following material was purchased:
    - A high frequency oscilloscope with its corresponding analysis kits.
    - A Nase-2B pencil soldering station with corresponding components and common parts.
    - A compact CD-2SE soldering station with corresponding components and common parts.
    - A TE 2QD hot air soldering station with corresponding components and common parts.
    - A microscope attached to the DME-2A soldering station
    - A welding source.
    - An electronic component positioner.

- A solder paste applicator for the component plates.

To protect the tables where these soldering stations have been installed, table protectors were purchased. All this material is used in the bachelor's degree in Engineering in Electronics Industry and Automation.

- **Eyetracking Device for the Descriptive Technologies Laboratory.** The Eyetracking device has been purchased allowing usability studies to be carried out beyond the specific monitor that was available to date. Likewise, a cluster for Big Data processing was acquired, in order to have a Big Data computing platform that allows this new technology to be addressed in degrees in the computing branch.
- **Structural kits for the Building Laboratory.** Kits to model structures and moulds to manufacture concrete specimens. To improve the study of structures, 10 MOLA kits were acquired that enable simulating a large number of different structures quickly, thanks to the use of magnets and balls to make the joints and thus be able to observe their real behaviour.
- **Improvement of the computer set up in Classrooms 0.01 and 0.05**. Since this academic year, all the classrooms of the School have a monitor installed on the teacher's table in order to facilitate the teacher's monitoring of the classroom projection: It was also used to install an AV box embedded in the teacher's table, from where s/he can comfortably access the signal bypass, internet, USB port and HDMI.
- **Alcatel Room Adaptation**. The latest enlargement of the Alcatel Room (1.02) forced this academic year reinforcing projection aimed at the last places in the Room with a 42" TV, since the distance and the columns made it impossible to correctly visualize the images. Taking advantage of this intervention, the room was re-cabled with HDMI, an AV box was incorporated to be able to comfortably discriminate the output of the projection gun and the old projection gun was replaced by a modern one with HDMI input and better image quality.

- **16/17 academic year**
  - **Improvements in the Mechatronics Laboratory (CREA).** A KUKA six degrees of freedom industrial robot was purchased in order to analyse and visualize the three-dimensional kinematics of multibody systems. Currently, EtherCat, modules of both digital inputs and outputs and analogue inputs and outputs, are being integrated into the robot's own communication network in order to provide the robot with information about its operating environment and facilitate its programming. Communication is also planned between the robot and the Siemens PLC, which is available in this laboratory, in order to be able to use a Siemens artificial vision camera to identify objects and program movements of the robot. With all this, it is intended for students to acquire skills in the control of processes in real time.
  - **1.03 EPS laboratory adequacy for project-based work.** The furniture in the EPS 1.03 Project room was replaced. This replacement has been accompanied by a new redistribution of the classroom and the updating of computer equipment. Specifically, 24 new PCs have been installed.
  - **Adaptation of the 2.06 EPS Signal Processing Laboratory and creation of a new teaching classroom.** In the summer of 2016, it was decided to

divide the Signal Processing laboratory into two independent spaces, one with the same nature and purpose and the other transforming it into a teaching classroom with a capacity of 28 students.

- **Classroom adaptation 0.04 EPS for individual work in computer science degrees**. In classroom 0.04, a series of interventions were carried out to adapt it to the needs of Computer Engineering students. Specifically, a wifi signal repeater-amplifier was installed, as well as plugs in the tables to facilitate the use of laptops. The classroom was also equipped with a camera system to facilitate the monitoring of classes by a new student with severe visual impairment enrolled in the course.

- **17/18 academic year**
  - **Creation of the Design Lab.** Some spaces on floor 0 of the EPS were reorganized in order to build this laboratory, which will be equipped with furniture, teaching equipment and Macintosh-type computer equipment during the 18/19 academic year.
  - **Ethernet cabling in EPS classroom 1.04**. To complement the improvements implemented the previous year (Wi-Fi and plugs in the laptop tables), several direct network connections for Ethernet cable have been installed.
  - **Renovation of the Physics and Chemistry laboratory equipment (-1.02).** Various materials were acquired with the aim of improving the performance that the physics laboratory already has and replacing some equipment that was already at the limit of its service life. This material is used for the practicals of the subjects Physics I and Physics II of the bachelor's degrees in Mechanical Engineering, Industrial Electronics and Automation Engineering and Energy and Sustainability Engineering. List of purchased material:
    - 1 "Maxwell's wheel experiment, brand LD Didactic".
    - 2 1m lane dynamic system.
    - 2 PAStrack curved rail system.
    - 1 Capstone Program, classroom licence.
    - 1 Capstone Program, Monopost lic..
    - 4 Airlink interfaces.
    - 2 Wireless force/acceleration sensor.
    - 6 Wireless temperature sensor.
    - 4 Motion sensor.
  - **Teaching equipment for the generation of renewable energies and systems simulation.** Didactic equipment for the generation of renewable energies and systems simulation were purchased. In addition, work is being done on the purchase of a photovoltaic energy trainer with virtual instrumentation and a solar panel with a rolling mast and collector. A Synchronous Generator Trainer team was acquired for the practice of electrical machines. All this material is intended for specific, basically second and third year subjects, of the new bachelor's degree in Energy Engineering and Sustainability.
  - **Material for carrying out practicals in the Electricity laboratory (-1.03).**

This material is basically intended for the subject of Fundamentals of Electrical Engineering that is taken in the second year of the common branch of the undergraduate degrees. The material purchased is as follows:

- Automatic cable stripper.
- Electrical analyser.
- New bearings and o-rings to replace old bearings and seals (12x8).
- Connection cables.

- **Material for the Disruptive Techniques laboratory**. This material is used both in the bachelor's degree in Computer Engineering and in the master's degree in Computer Engineering. Specifically, 1 server was purchased with 2 Xeon E5-2620 v4 processors, 96 Gb RAM, 1 x 600Gb SAS. The detailed items acquired are:
  - 1 HP Proliant DL360 Jan 9, Intel Xeon E5-2620v4 processor, 16GB RAM (1x16GB Registered DIMMs, DDR4), HP Embedded 1GB Ethernet 4-port 331i Adapter network card, HP Flexible Smart Array P440ar/2GB SAS 12G controller, SFF 2.5 "Hot Plug disks (no disks), DVD-RW, Power Supply (1) HP 500W Flex Slot Platinum Power Supply, Rack (1R) format, INCLUDES HP Easy Istall Rails.
  - 5 HPE 16GB (1x16GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit.
  - 1 x HPE DL360 Gen9 Intel Xeon E5-2620v4 (2.1GHz-/8-core/20MB/85W) Processor Kit.
  - 1 HP 600GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3YR Warranty Hard Drive.
  - HP 3 Year Next Business day DL360 Gen9 Foundation Care Service.
- **Material for the Mechatronics laboratory**. This material is used in the speciality of Mechatronics, shared between the bachelor's degree in Mechanical Engineering and the bachelor's degree in Industrial Electronics and Automation Engineering. A high temperature furnace, the chimney and the inert gas inlet were acquired to be able to work on the practicals of heat treatments and moulding castings, in the subject of Materials for Mechanical Manufacturing of the third year of the GEM. In the actions carried out during 2017, the KUKA robot was purchased by the Mechatronics laboratory. To improve its performance, a guidance system for the KUKA robot by artificial vision was purchased in 2018. Likewise, various laboratory consumables have been acquired such as a Hardware micro-controller, an interface module and pneumatic monostable valves.
- **Material for the Thermal Laboratory**. A practice test kit was purchased. This material is used mainly in the subject of Thermal Engineering.

- **18/19 academic year**
  - **Use of EPI (Personal protective equipment) in the teaching laboratories of the bachelor's degree in Technical Architecture and Building.** Implementation of a safety kit for each student and teacher and its use is mandatory in teaching laboratories. We worked together with the professors and the UdL health and safety service to develop the specific kit for the degree based on the practicals to be carried out and the spaces to be used. A

protocol has been defined for its use and acquisition through the UdL store.

- **Building laboratory equipment**. Acquisition of a Compressed Earth Block machine, providing a new teaching resource for the degree as well as at research and promotion level. The machine is used for the subject Materials 2. A universal traction-compression press was also adquired, along with an HP computer for the universal press control.

- **Energy and Sustainability Laboratory**. The following materials have been acquired:
  - Edibon International solar thermal energy equipment with a specific computer for the management of the control system and display
  - Three-phase power line simulation equipment
  - Work bench
  - Diligent Testing Accessories
  - Sensor and actuator consumables

- **19/20 academic year**
  - **Robotics laboratory**. Acquisition of a high-performance 3D printer used as a teaching tool in various undergraduate and master's degree subjects, as well as in workshops for high school students.
  - **Extended Reality Lab.** Two Virtual Reality devices were acquired, HP Z VR BACKPACK G2 and HP REVERB glasses, together with the docking stations, which allow the consolidation of the Extended Reality Laboratory of the EPS-UdL, in which immersion activities are carried out in virtual reality in the bachelor's degree in Technical Architecture and Building, specifically in the subjects of Graphic Expression 2 and Graphic Expression 3, in which the 3D models made with the specific digital representation software are transformed into VR format and the students can immerse themselves in their own designs. In the field of Architecture and Design, Virtual Reality and Augmented Reality allow previewing projects before being executed, in order to detect possible errors, improvements, interact with the environment, etc. Furthermore these technologies provide the engineer/architect with an intuitive sense of scale and proportion of the building, so it can be shown to a potential client without the need for building a scale model.
  - **Energy and sustainability laboratory.**
    - Purchase of two pneumatic benches to carry out didactic practicals.
    - Computer and screen for 1500 kN lab uniaxial compression testing machine. building the Solar Energy Team
    - Workbench for the Energy and Sustainability laboratory
  - **Electronics Laboratory.**
    - Purchase of a test device: "Analog Discovery Studio" for laboratory practicals with students.
    - Purchase of 10 Mechatronics Laboratory multimeters

- **Mechatronics laboratory.**
  - Purchase of a workbench by the mechatronics laboratory.
  - Purchase of 4 Tinkerkit Braccio robotic Arduinos for the computer science master's degree practicals.

- **20/21 academic year**
  - **Building laboratory**. Acquisition of a 1500 kN uniaxial compression testing machine.
    Purchase of material for GATE expansion - EPS virtual reality equipment upgrade and 1 USB Qwerty keyboard and 3 Pavillon Gaming Mouse 200 and 1 HP E27 G4 27 "LED monitor and 1 LG 27UL650-W 27" LED monitor.
  - **Renovation of the mobile computer lab.**
    - Purchase of 7 laptops to replace the damaged computers.
    - Co-funding with the vice-rector's office for infrastructure of a new mobile computer classroom (€13,500.00)
    - Acquisition of audiovisual and electronic material to implement virtual or mixed teaching.
  - **Thermal laboratory.** Purchase of a photovoltaic trainer mb solar panel, spotlights and didactic frame for teaching practices.

- **Acquisition of software**

The University of Lleida also centralizes the purchase of software licences, which are renewed each year. The software that has been acquired associated with EPS is:

- CYPE
- Matlab
- TCQ - Budgets. Technological Institute of Construction
- Labview
- Adobe Creative Cloud Suite
- Comsol
- VMWARE player
- SiemensSCE-Student
- SIMPLIFY 3D
- TRNSYS version 18
- Equation Engineering Solver (EES)

- **Actions for the maintenance of EPS services and infrastructures and thus offer the best service to the different groups**
  - **14/15 academic year**
    - **EPS Management meeting room**. A meeting room with capacity for 8-10 people has been set up in the EPS Management area. A projection cannon and sound equipment with self-amplified loudspeakers were installed to provide the space with complete multimedia equipment.
    - **Panel sponsoring companies and collaborators**. In order to give visibility to the effort that many companies make towards the Polytechnic School and at the same time show the close collaboration links between the School and the industrial and business sector of western Catalonia, the idea was to incorporate a panel displaying

collaborating and/or sponsor companies at the entrance to the centre.

- **15/16 academic year**
  - **Information Screens EPS - CREA.** Updating and expansion of the EPS information screen system that fulfils the function of informing about events. Specifically, the following tasks were carried out:
    - Installation of new information management software.
    - Adaptation of the information desk in the EPS lobby.
    - Installation of a new information desk in the study area of the EPS basement.
    - Installation of a new information desk in the lobby of the CREA building.
  - **Improvements in the corridors of the EPS**. With the aim of giving visibility to and enhancing the teaching activities that are carried out in the EPS in the different activities associated with the promotion and dissemination of the studies that the School carries out on a regular basis among high school and CFGS students, the MotoStudent Showcase and Estació de Dades IBM 3741 Showcase.
- **16/17 academic year**
  - **Adaptation of the EPS management common area**. In order to complete the comprehensive reform of the management area started in the 2015-16 academic year, during this year the "decorative" part and the furniture of this area were adapted. Basically the furniture was replaced (two armchairs and a side table) and two decorative vinyls were incorporated, one of them with the new EPS logo in relief.
- **17/18 academic year**
  - **Start of EPS vestibule adaptation**. In the first quarter of 2019, the adaptation and modernization of the EPS main lobby was scheduled to be completed. In 2018 the heating radiators were repositioned and the old carpet in the entrance was replaced.
  - **Basement floor information screen replacement**. The monitor, intended as an information point, located in the EPS basement study area, was damaged. It was replaced by a new monitor and the screen increased from 42" to 55".
- **18/19 academic year**
  - **Comprehensive revamp of the School lobby**. An interior design project in the lobby of the centre has been carried out. Two 44" interactive touch screens have been installed in order to allow browsing through the School's website. Hence students can consult information related to the centre, degrees, timetables, exam calendars, etc. Besides, a video wall consisting of four 44" screens is also installed (offering a total projection surface of 215 x 120 cm) to disseminate various information such as new degrees, events, final master's or bachelor's degree projects, project presentation and promotional information about the School. Finally, an amplifier and speakers were installed, that allow ambient sound in this area.
- **19/20 academic year**

- The creative studio of Lleida, CactuSoup carried out the design and illustration, passing through a whole process of creation and development, of the interior design and institutional image project for the new laboratory of the bachelor's degree in Digital Design and Creative Technologies, installed in November 2019; the DissenyLAB. The installation affects the rear wall and the side glass of the classroom.
- Enabling a "coworking" room. The spaces are adapted and the materials and technologies necessary for the performance of shared work are acquired.
- The "vending" area on the ground floor of the EPS was fitted out with a sofa area.

- **20/21 academic year**
  - A 75" TV has been acquired for the meeting room in the management area. The projector in Classroom 2.01 has been replaced.
  - Calibration and updating of the anti-impact protection systems according to the current occupational risk regulations issued by the inspectors.

During the closure period due to COVID-19, the Library and Documentation unit disseminated the electronic resources offered to students: specifically, access to more than 200 databases, 15,000 journals and 24,000 books. Through the thematic biblioguides (http://biblioguies.udl.cat/campusvirtual) offer tips for finding information and using the virtual library.

The SIC (Information and Communication Systems) has been carrying out actions to expand the capacity of the virtual campus platform and eliminate performance problems on an ongoing basis. At the same time, it has provided the students with the tools and services to facilitate the follow-up of the subjects, such as the AppsAnywhere application, which gives access to the applications that are virtualized in the EPS laboratories. The Teaching Activity Support and Advice unit has advised the teaching staff on the use of the most commonly used tools of the virtual campus in online teaching.

The UdL has provided equipment (computers and tablets) and has covered mobile data costs to students who did not have access to it so they could continue learning online.

For the 20/21 academic year the following improvements were implemented:

- Laboratory acquisition of laptops and audiovisual support equipment to cope with the distance and prevention measures imposed by COVID-19.
- Purchase of material to carry out virtual or blended teaching:

  - 8 professional HDMI cable installations from VISION
  - 10 USB extension cables
  - 6 Logitech C930 webcam - Colour webcam
  - 3 Blue Yeti micros - USB connection
  - 4 Advance RF- 31 tripods
  - 1 Compact 2-Port VGA Video Splitter Splitter Cable
  - Adaptation of spaces to guarantee distance measures and group reorganization.

- Approach to schedules 50% face-to-face - 50% virtual, with the corresponding adaptation of schedules and grouping of groups for days of face-to-face activities.
- Preparation of spaces for recording and/or conducting classes in virtual format
- Creation of classrooms to be able to broadcast live classes in the event of confinement of the teaching staff or of any of the students during the academic year.

5. Transparency and documentation

Criterion 5.1 Module descriptions

The main way to disseminate information is the School website and the websites of the undergraduate and master's degree programmes. On these websites, all the relevant information is specified, not only for each of the degrees, but for any aspect of interest to the stakeholders involved: students, former students (alumni), future students, families, teachers, collaborating companies, etc.
The Centre has various communication tools to facilitate and guarantee that the relevant information on bachelor's and master's degrees reaches all stakeholders. Among such we can highlight: communication spaces through the existing virtual campus on the SAKAI platform, intranet, the EPS website, information screens and social networks, telegram channel and the monthly newsletter. Through all these means, due communication between the Centre and the groups interested in receiving this relevant information is guaranteed.

Attending to the different interest groups, the information is accessible specifically to:

- Future students: specific access to both the website of each degree and the EPS website.
- Current students:
  - a specific website for each degree and each master's degree, as indicated in the description of the previous sub-standard
  - a communication channel by email addressed to all students of the School (Trobada-EPS)
  - a communication channel per degree targeting all students of each degree
  - a communication channel incorporated in the virtual campus of each subject
  - a virtual space that allows each student to communicate with their tutor.
- Former students:
  - Specific access to the School's website
  - Email
  - Informative bulletin (Newsletter)
  - Linkedin
- Foreign students: specific access to the School's website.
- Employers:
  - As regards curricular and extracurricular internships and job offers, there is a specific section on the School's website
  - Informative bulletin (Newsletter)
  - Regular meetings with the EPS management team
- PDI:
  - Specific access to the School website and the degree website
  - Regular meetings with the coordinator of the degree
- PAS: Specific access to the School's website.

The large amount of information offered on the website of the University of Lleida (http://www.udl.cat/), which is perhaps the most natural access route for future students, should

be noted. The UdL website provides access to the School website through the tab "The University: Centres and Departments" and the degree website through the "Studies" tab.

Likewise, for communication with and between the different groups that make up the EPS, there is a communication channel by email addressed to all EPS PDI and PAS (Tots-EPS). There is also a specific communication channel with the students of the School (Trobada-EPS) through which information is disseminated to students; for example, the academic secretariat can send reminders of deadlines for the extension of enrolment, the enrolment for the TFG, the results of the curricular qualification, etc.

The University has a virtual campus, also called the SAKAI platform (http://cv.udl.cat/) that contains specific spaces for:

- Each subject. This facilitates the relationship between teacher and student.
- Each bacehelor's or master's degree programme. The coordinator of each programme manages this space and allows the relationship with the teaching staff and/or students jointly.
- The tutoring plan. The relationship between the tutor and the student is streamlined through this tool.

The virtual campus has several communication tools such as email, a document repository, a list of notices and an agenda. Likewise, it allows students to submit activities for assessment and manage grades.

The websites of the programmes have recently been updated with the aim of offering homogeneous information across all the degrees, as well as in the teaching guides of the subjects, which are offered in three languages, Catalan, Spanish and English. To facilitate access by the various groups to the information, the website presents a tab called "information for..." that filters and orders the contents of interest according to the user.
The following information can be consulted on the website of each degree:

- **Future students:**
  - Admissions
  - Support service
  - Address/Getting here
- **Syllabus:**
  - Objectives and competences
  - Syllabus structure and course guides;
  - Course guides of previous courses
    - Cross-curricular subject
    - Bachelor's Thesis
    - Third language regulations
    - Teaching staff

  Dates and timetables:
  - Academic calendar
  - Degree timetable
  - Examinations

  Internships:
  - External academic internships of the UdL
  - Degree regulations

Mobility:
  - Academic mobility and programmes
  - Validation of credits
  - ECTS system
  - Degree mobility programmes
- **Scholarships and grants**
  - **Regulations**
  - UdL academic regulations
  - Faculty/School

Regarding the teaching guides, the following information can be consulted for each subject of the degree.

- Subject code
- Coordinator, teaching staff of the subject and contact address
- Number of credits
- Distribution of the teaching load face-to-face classes/individual work
- Theoretical/practical credit distribution
- Language in which the course is given
- Academic goals
- Competences
- Fundamental contents of the subject
- Methodological axes of the subject
- Course development plan
- Assessment system
- Bibliography and information resources
- Additional information

Also, on the degree/master's website there is the tab "The degree in figures" where you can consult data and indicators of the degree, broken down by sex. More specifically, in the degree dossier, information can be obtained broken down by sex regarding:

- Registration and access route
- Access grade
- Teaching organization
- Teaching hours by type of teaching staff
- Performance rate
- Efficiency and graduation
- Cohort follow-up

Every June, there is an annual review of the School's websites and degrees. This review process comes under the SGIQ procedures and has been consolidated as a very useful and efficient means to ensure that the information appears complete and up-to-date, so that the quality office can make a detailed review of the School's websites, and an Excel sheet is generated with all parameters checked. This Excel is later verified by the management team and coordinators of the EPS, so that, annually and before the enrolment process, the School's websites are set up so that all the information is truthful, complete, up-to-date and accessible. The team of coordinators and the management of the School work towards this purpose in a coordinated

way, holding meetings to share the aspects for improvement, together with the communication technician for management support. This way of working allows detecting cross-cutting issues on the webs, which often depend on other services of the university and not on the School or the coordinator.

Criterion 5.2 Diploma and Diploma Supplement

Once the student has passed the university studies leading to obtaining a specific official qualification (bachelor's, master's or doctoral degree) and, in the case of degrees, having proven knowledge of a third language, the student must apply for the certificate via the Electronic Office of the University and pay the corresponding fee.

The fee is set for each academic year by the Official Pricing Decree of the Generalitat of Catalonia.

Once the application for issuance of the official certificate has been processed, all the documentation is checked by the Secretariat of the centre and a provisional degree certificate is issued to the interested party, also electronically. This provisional certificate along with payment of the fee will constitute the provisional documentation to prove that a bachelor's/master's degree has been obtained, once the certificate is definitely issued. Alternatively, the issuance of a replacement certificate of the degree may be requested. This certificate has the same validity as the official diploma and it is issued on a provisional basis at the express request of the student.
The secretary of the centre will inform the graduate when they can pick up the certificate.

Official degree certificates will be issued, on behalf of the King, by the Rector of the University of Lleida, in accordance with the requirements regarding their format, text and issuance procedure, as established in the current regulations.

The issuance of degrees is regulated by the Royal Decree 1002/2010, of August 5, on the issuance of official university degrees.

Once your request for the issuance of an official degree qualification has been processed, the centre will proceed to generate the provisional degree certificate, which will be available in your electronic file.
According to current legislation, once issued, the certificate must be collected by the interested party in person, and they must submit proof of identification (DNI for a Spanish national, identity card, for a national of an EU country, or passport for persons of non-EU nationality).

If the holder cannot collect the diploma him/herself, s/he can authorize another person, always by means of a power of attorney, to collect it on their behalf.

The European Diploma Supplement (EDS) is the document that accompanies the official university degree and is valid throughout Spain with unified, personalized information for each university graduate, on the studies completed, the results obtained, the professional skills acquired and the level of their degree in the national higher education system. This document is issued by the centre according to current regulations.

The SET is regulated by Royal Decree 1002/2010, of 5 August, on the issuance of official university degrees and by Royal Decree 22/2015, of 23 January, establishing the requirements for issuing the European Supplement for the degrees regulated in Royal Decree 1393/2007, of 29 October, establishing the organization of official university education and amending Royal Decree 1027/2011, of 15 July, establishing the Spanish Qualifications Framework for Higher Education.

The Ministry has published some guides to regulate its issuance:
Bachelor's degree SET Issuance Guide
Master's degree SET Issuance Guide

Criterion 5.3 Relevant rules

All the regulations that affect EPS qualifications are:

- Academic regulations of UdL undergraduate and master's degrees (enrolment, permanence, assessment and qualification, curricular qualification)
- Regulations for Tutored in-company internships,
- Regulations for bachelor's and master's degree final projects,
- Academic Framework of the EPS,
- Regulations on double degrees,

All of the above can be found in the Academic Information section of the School's website, in the specific section on Regulations (http://www.eps.udl.cat/info_acad/normatives/normatives.html).

These regulations have been designed after analysing and considering the needs and requirements, so that they entail a positive impact on the implementation of the School's teaching.

Among the regulations mentioned, two are specific to the EPS and have a positive impact on the results of the qualifications: the curricular qualification and the Academic Framework of the EPS.

The **Curricular qualification** aims to determine whether:

- a student has globally acquired the knowledge necessary to pass each of the curricular blocks, and
- a student will be able to complete the programme within a reasonable period of time.

There are two curricular blocks in each bachelor's degree:

The Degree Start Curricular Block includes all the compulsory subjects of the first year

The Degree Completion Curricular Block includes all the compulsory subjects of the second, third and fourth years. Optional and specialization subjects, Internships and Bachelor's thesis will not be included.

The Evaluation Committee of the Start Curricular Block is responsible for applying the criteria approved in the Regulations, and assessing the level of training acquired by each student, taken from the analysis of the subjects that make up the curricular block. It will also establish which students pass the Start curricular block, what is the mark that must appear in the record and transcript of each student, and prepare a report with the results of the curricular evaluation, to be signed by the director of the Centre.

Students in the Completion Curriculum Block, who meet the conditions approved in the Regulations for this Block, may make a request addressed to the director of the Centre so that they can be compensated for the corresponding subjects. The Curricular Qualification of this block will be the result of applying the criteria established in the approved Regulations.

The student will be considered to have passed a block and will be compensated for the subjects not passed, as long as he/she meets the criteria established in the regulations or when the Curricular Committee of the Block so decides.

The **Academic Framework of Bachelor's Degrees and the Academic Framework of Master's Degrees** of the EPS (http://www.eps.udl.cat/info_acad/normatives/MarcAcademicEPS.html) intend to establish the general bases for organizing teaching. Currently, the versions approved by the School Board in July 2014 are used, the result of an improvement on previous versions, started in the 2009/10 academic year. Among others, these documents establish the bases to set the academic calendar and how to carry out the sequence of the different assessment activities, from written tests to the submission of practical activities. Bases are also established on the number of assessment activities and their weight towards the final grade of a subject. In this way, continuous assessment has been standardized in all EPS studies without overwhelming the student with these assessment activities.

All the above regulations are subject to periodical updates. The most significant changes and improvements introduced recently are:

- Approval of the Methodological Framework of Dual Training.
  With the implementation of Dual Training in some programmes, a set of protocols and work standards have been defined and established that are currently included in procedure PC 008: management of dual training in the master's degrees of the Polytechnic School (6_01_EPS_PC008), reinforced with the approval in 2021 of the Methodological Framework for Dual Training for bachelor's and master's degrees at EPS (6_02_EPS_Marco Metodologico Formación dual.pdf). The methodological framework of dual training includes aspects such as the organization, management, monitoring, assessment and qualification of Dual Training in the bachelor's, master's and double degrees taught at the EPS, following the general guidelines approved in the Regulations of the UdL.
  In addition, with the collaboration of the legal services of the University of Lleida, the following documents have been drawn up, which are included in said protocols:
  - A specific dual training agreement model that sets out the specificities of dual training with respect to the rest of the practices at the University of Lleida.
  - The tutor's guide, which includes the obligations and duties of dual training tutors (see evidence).
  - The learning notebook in three languages: English, Spanish and Catalan (see evidence).

- Adaptation of the Curricular Qualification Regulations
  In 2018 and 2019, two degrees of 180 ECTS were implemented. Therefore, the Curricular Qualification Regulations have been adapted to differentiate the maximum number of credits that a student can compensate in the overall degree depending on whether s/he is pursuing a degree of 180 ECTS or 240 ECTS.

- Due to the crisis caused by COVID-19, in April 2020 the centre Study Committee approved

two documents in order to provide guidelines to adapt to lockdown:

- The Guidelines for the Adaptation of Online Assessment, following the indications of agreement No. 33/2020 of the Governing Council of 18 February 2020, which approves the Regulations for the assessment and qualification of teaching in UdL undergraduate and master's degrees. The document includes all the adaptations made to maintain teaching and non-face-to-face assessment, the procedure for modifying the teaching guides to reflect the changes, as well as the criteria for alternative assessment.
- The EPS Procedure for the Defence of TFGs and TFMs online through the videoconference tool of the virtual campus, ensuring that the session is public and disseminated through the channels used by the Centre.

- Introduction of gender perspective

  In relation to the gender perspective, Law 17/2015, of 21 July on the effective equality of women and men, Article 28.1 therein requires universities to introduce the gender perspective in a transversal manner and studies on the contribution of women throughout history in all areas of knowledge and in academic and research activities, which must be included in the curriculum of undergraduate and postgraduate programmes.

  In implementing this law, and in accordance with the indications of AQU Catalonia to deploy the gender perspective in all degrees, the UdL, at the Governing Council of 17 December 2020, approved a transversal competence for undergraduate and master's degrees that incorporates this perspective proposing to: "Apply the gender perspective to the functions of the professional field".

  The EPS included this competence in all bachelor's and master's degrees during the first term of 2021, incorporating the learning outcomes that will specify the deployment of the transversal competence. For the preparation of the learning outcomes, the documentation published by the Xarxa Vives committees and by the AQU Catalunya Guide has been used.

6. Quality Management: Quality Assessment and Development

Criterion 6 Quality management: quality assessment and development

The EPS has an Internal Quality Assurance System (SGIQ) that encompasses the activities carried out in the centre with the aim of guaranteeing the continuous improvement of the quality of the programmes of the centre, following the guidelines and standards for quality assurance in the European Higher Education Area (EHEA) and the AUDIT programme.

The document that serves as the basis for the SGIQ of the centre is the UdL Quality Manual and the documentation related to the government of the University (Statutes and general regulations) and the internal regulations of the Polytechnic School have been taken into account.

The student body, the teaching staff, and the administration and services staff are the main stakeholders in the School's SGIQ. Their participation is guaranteed since they are represented or are part of the collegiate bodies of the University, such as the University Senate, the Governing Council and the main committees, and of the collegiate bodies of the Polytechnic School, such as the School Board or the study committees.

Other interest groups such as employers, public administrations and society in general are represented within the structure of the university through the Social Council. Regarding participation in the School, the EPS organizes meetings with the different social agents involved in their degrees: companies, professional associations, business associations, public administrations... These meetings therefore guarantee the involvement of society and future employers in the School's proposals, related to the training on offer. In addition, companies collaborate with the School through internships or dual training programmes, so they are actively involved in the training of the future engineers.
The director of the School is responsible for implementing the SGIQ of the EPS. The director of the EPS appoints the centre Quality coordinator , preferably a member of the management team of the centre, who represents the director in the follow-up of the SGIQ of the School.

During the 2019-20 academic year, the UdL requested the evaluation of the implementation of the transversal procedures of the Internal Quality Assurance System, which the centre adopts as its own. The result of the audit was favourable and opens the door to certification of the implementation of the SGIQ at the centre, scheduled for 2022. This first stage has also involved the deployment of a set of indicators that allow controlling the procedures and defining a specific Improvement Plan within the Programme Budget developed by the UdL Strategic Plan.

The SGIQ of the UdL follows the guidelines of the procedure "PG24 Define and develop the policy and objectives of improvement of the university" for the review of the SGIQ itself, as well as the associated improvement Plan.

The EPS adopts as its own the general procedures "PG02 Design training programmes", "PG03 Review and improve official training programmes" and "PG26 Accredit official qualifications", developed within the framework of the SGIQ.

These procedures are subject to periodic updates led and managed by the UdL's Teaching

Quality and Planning Unit, with the aim of adjusting to changes in needs and regulations, thus establishing a system of continuous improvement of these SGIQ procedures. The history of the dates and reasons for these reviews can be consulted at the beginning of each of the procedures.

The purpose of these procedures is to establish the guidelines for application in the design and approval of new undergraduate and graduate degrees adapted to the EHEA, as well as the subsequent monitoring and review of their results in order to guarantee the quality of official training programmes, and finally their accreditation.

In all of them, special emphasis is placed on the participation of all the agents involved. Thus, in the "Stakeholder participation" section, present in all these procedures, it is clearly and transparently defined how this requirement is met in each case.

- **Updating of procedures PG02, PG03 and PG26.** During 2020, the procedures were reviewed and updated by the Teaching Quality and Planning Unit together with the corresponding Vice-Rectors.
- **Restructuring of the Improvement Plan.** Various changes have been introduced in the organization of the Improvement Plan: the year in which the improvement action is introduced is identified, it is related to the general procedure to which it is associated, it determines whether the action corresponds to the centre in general or to a specific degree and the origin of the action is indicated (monitoring report, accreditation, centre agreements,...). In the same document, a tab has been created with the "Completed Actions" and their corresponding follow-up.
- **Indicator analysis.** Annually, the management of the centre together with the technicians of the Quality Office assess the indicators related to the procedures. Since 2020, the number of indicators has been expanded, which makes it possible to propose improvement actions based on the analysis of the information.

The gender perspective has been incorporated into the processes mentioned above, introducing the breakdown by sex in part of the information. The centre has participated in the deployment of the UdL Equal Opportunities Plan. Through procedure PG03 Review and improve the training programmes, the transversal competence "Applying the gender perspective to the functions of the professional field" has been introduced, approved by the UdL Academic Organization Committee on 17 December 2020 in all degrees.

Regarding the impact of the COVID-19 pandemic, from the beginning the Directorate of the EPS, following the indications of the Vice-Rectorate for Academic Planning, adapted to:

- Plan again all pending teaching as far as possible using online methodologies, offering virtual classes respecting the original timetables and the timeframes established for each subject.
- Sizing and coordinating academic activities taking into account the workload of each subject and the set of subjects being studied.
- Maintain regular contact with the students to ensure that they were aware of the proposed novelties and allowing their observations to be collected in order to help improve the planning of changes and avoid possible overlaps.

In the case of external internships, as of the declaration of the state of emergency, the face-to-face internships by students of all EPS degrees were suspended. Only in the cases that the type

of functions to be performed so allowed, were they replaced by teleworking. The external internships were restarted with the lifting of the state of emergency. Before resuming the activity, a COVID declaration had to be signed by the student, the company tutor and the University tutor where the agreement of the parties was recorded to return to the face-to-face modality of the internships.

Since 13 March 2020, no face-to-face meetings have been held with students and all communications have been by mail or videoconference through a new space on the virtual campus called "Meetings with PTE students".

The Study Committee of 16 April 2020 approved the document "Guidelines for the adaptation of the online assessment" which included all the changes applied taking into account the procedures PG22 Programme the Annual Teaching Plan, PG29 Manage external academic internships, and PG30 Plan and develop learning methodologies.

At the same Study Committee, the "Procedure for modifying the teaching guides" was approved, which included how to introduce addenda to reflect the changes made and to be able to monitor them.

Qualifications are monitored on an ongoing basis each academic year and the process is articulated mainly through the following mechanisms:

- Monthly meetings of all the coordinators of bacehelor's and master's degrees with the heads of studies.
- Meetings of the coordinator with the teaching staff of each degree at the end of each academic year.
- Periodic meetings between the coordinator and the students.
- Meetings of the EPS management team with different representative groups of the Centre such as: the Student Council, the Heads of the Departments attached to the EPS, representatives of the industrial sector, and the person in charge of the Academic Secretariat of the EPS, among others.
- Contributions and suggestions from the tutors of the UdL Tutoring Plan (Acompanya-Plan Néstor) based on individual or group tutorials with the students.
- Weekly meetings of the Centre's Management Team.
- Specific intensive sessions of the management team for the review and evaluation of the completed year (month of July), in which the objectives of the following year are defined. In winter, intensive follow-up sessions are also planned, in order to review and adjust the planned strategic actions.

This constant work throughout the course allows the EPS to carry out continuous management in which the aspects for improvement can be precisely detected and diligently addressed, thus contributing to the continuous improvement of all processes.

In addition, and specifically for the preparation of the degree monitoring reports, during the months of June/July of each year, the monitoring data of each of the degrees is evaluated, which the Quality and Planning unit makes available through DATA, the results are analysed and discussed at the meetings of the Coordinators Team, then the improvement actions that they want to carry out for the following year are proposed. The result of this process is the

preparation of an annual Improvement Plan in which all actions for improvement that are intended to be implemented during the following academic year are specified. This document is discussed and approved by the Studies Committee and by the Studies Committee of the corresponding Official Postgraduate Programme (POP).

Since the 16/17 academic year, the Quality and Teaching Planning unit has established the monitoring of the SGIQ through indicators, which have been expanded during the 19/20 academic year, in such a way that the quality technicians have been brought together with the EPS management team. The results obtained for the various indicators are discussed and evaluated and specific proposals for improvement are established. This procedure is valued very positively as it encourages participatory and consensual decision-making, as well as allowing the detection of strong points and areas for improvement.

Finally, it should be noted that annually, the School management meets with the Vice-Rectorate for Academic Organization and Planning, as well as with the technicians of the Quality and Planning unit, with the aim of defining the strategic improvement actions that will be linked to the Budget of the School in the following academic year, through the signing of the Centre Agreements.

The Improvement Plan systematically includes the process and timing of the achievement of the different planned actions and is approved by the Undergraduate Studies Committee and the Official Postgraduate Programme Studies Committee. The constitution of these committees is defined by the SGIQ and all stakeholders are represented.

All the information is available in the Centre's Portfolio, a document repository that contains all the information and documents generated in the quality assurance process of all the centre's degrees.

IMPROVEMENT PLAN

Improvement plan for Bachelor's degrees submitted for evaluation

The following Improvement Plan includes the monitoring of the actions that are currently being carried out and the proposal of new actions that arise from the analysis carried out in this report.

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
Accreditation report / IDA	2019	Center	PG 30 Plan and develop teaching methodologies	Regulate and organize the new procedures originated by the implementation of Dual Training	Develop regulations for Dual Training that regulate the process in all its areas	No	Heads of Studies	1st Semester 2020 Course 20/21	Approval by Commission of Studies (12/07/2021) of the Methodological Framework of the Dual Formation of the titulaciones of degree and máster of the Upper Polytechnical School.
Follow-up report	2019	Center	PG 02 Design training programs	Increase the offer of double degrees	Explore the feasibility of a double degree for the Degree in Engineering in Industrial Organization and Logistics and for the Degree in Chemical Engineering	No	Head of Studies / Degree Coordinators	Course 19/20 Course 20/21 Course 21/22	Contacts were established with Esslingen by GEOIL and are to be continued during the 21/22 academic year. The new Double Degree in Chemical Engineering and Energy Technology begins with the University of Novia (Agreement approved by the Governing Council July 2021)
Follow-up report	2019	Center	PG 06 Capturing future students	Consolidate the single entry into undergraduate degrees in the industrial branch	Consolidation of the unification of criteria and contents in the common subjects of the five branches of Industrial Engineering.	No	Head of Industrial Studies	Course 19/20 Course 20/21	Agreement no. 159/2018 of the Governing Council of 19 June 2018, approving the common core between the degrees in the field of Industrial Engineering in Lleida and Igualada.
Follow-up report	2019	Center	PG 06 Capturing future students	Give visibility to the Igualada Campus	Send the School Newsletter to the addresses of secondary schools and	No	Management of the Center	Course 19/20 Course 20/21	From this 20/21 academic year, the EPS Newsletter (Campus Igualada) is sent to high schools in the area.

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
					institutions in the Igualada area				
Follow-up report	2019	GEES	PG 06 Capturing future students	Disseminate degrees in the area of influence	Make efforts to link schools of training cycles with the Degree in Energy Engineering and Sustainability	No	Degree coordinator	Course 19/20 Course 20/21	During the 20/21 academic year, contacts were made with centers such as the Escola del Treball and Torre Vicens in Lleida. This action becomes a Center to include all degrees next year
Follow-up report	2020	Center	PG 28 Welcoming and guiding students	Improve student representation	Consolidate the Student Council of the Igualada campus and renew the Board of the Lleida Campus Council.	No	Management of the Center	2nd Semester 2020	Renewal of the EPS Student Council. (Elections 2020) and commissions at the center
Follow-up report	2020	Center	PG 06 Capturing future students	Give visibility to the Igualada Campus	Improving the promotion campaign for the Igualada Campus; including the centers of cycles of formative degrees and intensifying the actions in the counties of Osona, Baix Llobregat, Penedès and Conca del Barberà.	No	School Management	Course 20/21	In order to improve the promotion of the Campus, a new action is proposed (2021): to carry out a market study to determine efficient actions.
Follow-up report	2020	Center	PG 06 Capturing future students	Disseminate degrees in the area of influence	Promote the school and its degrees through the presentation of projects.	No	Deputy Director of Students, Promotion and Quality	Course 20/21	Recording short videos where students present award-winning TFM

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
Follow-up report	2020	Center	PG 28 Welcoming and guiding students	Improve student representation	Improve student representation; promote classroom delegates of all degrees and courses.	No	Deputy Director of Students, Promotion and Quality	Course 20/21	In the 20/21 academic year, delegates joined all the courses for all the degree programs
Follow-up report	2020	Center	PG 23 Publish information and report on training programs	Increase participation in surveys	Send emails to graduates to fill out satisfaction surveys	No	Management of the Center	November 2020	Sent mail to all graduates (13/11/2020) from the mail of Secretary of Management.
Follow-up report	2020	Center	PG 06 Capturing future students	Promote technological vocations	Start a Talent Program. It is a program aimed at high school students with good academic results and aims to expand their training.	No	Deputy Director of Students, Promotion and Quality	Course 20/21	First presentation of TalenTECH (27/05/2021) by Nacho López, on social networks and mathematics. It could be followed simultaneously in face-to-face and virtual format.
Follow-up report	2020	Center	PG 06 Capturing future students	Disseminate the degrees of the School in the area of influence	Look for an EPS promotion coordinator.	No	Management of the Center	Course 20/21 Course 21/22	It is maintained for the 21/22 academic year
Follow-up report	2020	Center	PG 29 Manage external academic internships	Promote actions that enhance the level of interaction with the business environment generating new synergies	Analyze the desirability of activating a business advisory board.	No	External Internship Coordinator	Course 20/21	It is maintained for the 21/22 academic year
Follow-up report	2020	Center	PG 28 Welcoming and guiding students	Improving the sub-standard 5.1 Academic guidance services adequately support the learning process and vocational guidance services facilitate incorporation into the labor market	Promote the Progateway program and incorporate GATE into the program	No	Management of the Center	Course 20/21	23/02/2021. Open enrollment in the EPS Transversal Subject: "EPS Professional Gateway"

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
Follow-up report	2020	Center	PG 28 Welcoming and guiding students	Improving the sub-standard 5.1 Academic guidance services adequately support the learning process and vocational guidance services facilitate incorporation into the labor market	Promote a monograph on employability for students of 4t.	No	External Internship Coordinator	2nd Semester 2020	Discarded
Follow-up report	2020	Center	PG 08 Manage outgoing mobility students	Encourage the internalization of our students	Perform WWEPS virtually.	No	Deputy Director of International Relations	Course 20/21	4th edition of the World Wide EPS Meeting WWEPS (from 24 to 27/11/2020) in virtual format. http://www.wwepsmeeting.udl.cat/en/program/Program/
Follow-up report	2020	Center	PG 32 Manage complaints and suggestions (centers)	Consolidate the relationship between the school, students and alumni	Explore the possibility of using Linkedin to consolidate the relationship between students and school	No	School Management	Course 20/21	EPS's Linkedin profile opened in July 2021
Follow-up report	2020	Center	PG 06 Capturing future students	Disseminate degrees in the area of influence	Improve the number of followers on the networks.	No	Management of the Center	Course 20/21	Increase in followers on Facebook, Twitter, Instagran and networking activity, according to the 2020-21 communication report conducted by the Management Support Technician.
Follow-up report	2020	Center	PG 32 Manage complaints and suggestions (centers)	Systematize the collection of complaints and suggestions	Review procedures and protocol for handling student complaints.	No	Head of Studies / Coordinators	2nd Semester 2020	During this 20/21 academic year, regular meetings have been established between coordinators and students to collect student complaints. A model report has been designed which includes the number of attendees, issues to be addressed and agreements reached.
Follow-up report	2020	Center (COVID-19)	PG 22 Schedule the	Report on adaptations in the curriculum	Coordinators-students meeting to explain the measures taken due to	No	Head of Studies /	September 2020	Meetings were held at the beginning of the course

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
			annual teaching plan	resulting from the pandemic	the pandemic and the adaptations of schedules and teaching activity.		Coordinators		
Follow-up report	2020	Center (COVID-19)	PG 22 Schedule the annual teaching plan	Provide the center with tools and resources to maintain the quality of teaching during the COVID-19 situation	The teaching guide will reflect the specific safety measures of each subject for the realization of the practices in the laboratory.	No	Management of the Center	September 2020	The guides were exceptionally open to pick up changes and measures
Follow-up report	2020	Center (COVID-19)	PG 27 Manage material resources for teaching	Provide the center with tools and resources to maintain the quality of teaching during the COVID-19 situation	Acquisition of a laboratory for laptops and audiovisual equipment to support the exceptional situation experienced as a result of the Covid-19	No	Management of the Center	September 2020	Acquisition of a new mobile computer room (equipped with 30 computers) co-financed with the Office of the Vice President for Infrastructure / Purchase of material for virtual or mixed teaching: 8 HDMI cables for professional VISION installation, 10 USB extension cables, 6 Logitech C930 webcams - Webcam color, 3 micross Blue Yeti - USB connection, 4 Advance RF-31 tripods, 1 duplicator cable 2-port VGA video splitter Compact outputs
Follow-up report	2020	Center (COVID-19)	PG 27 Manage material resources for teaching	Implement protection measures against COVID-19	Adequacy of spaces to ensure distance measurements.	No	Management of the Center	September 2020	Action taken.
Follow-up report	2020	Center (COVID-19)	PG 06 Capturing future students	Implement protection measures against COVID-19	Carrying out workshops and promotional activities in virtual format.	No	Management of the Center	Course 20/21	A new catalog of activities is being carried out for the 2020/21 COVID-19 academic year. Adaptation to virtual format of some workshops (Cryptography, Manufacture of parts with 3D printers, Computers. LEST'S Code, ..)

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
Follow-up report	2020	GEES	PG 22 Schedule the annual teaching plan	Increase the offer of double degrees	Implementation of the double degree: Degree in Mechanical Engineering and Degree in Energy Engineering and Sustainability.	No	Head of Studies / Degree Coordinator	Course 20/21	Start of the DT: GEM / GEES with 12 students enrolled
Follow-up report	2020	GEES	PG 06 Capturing future students	Increase the offer of double degrees	Explore the feasibility of a double international degree with the University of Perugia (Italy).	No	Head of Studies / Degree Coordinator	Course 20/21	Discarded. It did not evolve
Follow-up report	2020	GEEIA / GEM	PG 30 Plan and develop teaching methodologies	Establish project work in degrees	Reactivate the MotoStudent project	No	Degree coordinators	Course 20/21	Discarded by the pandemic
Follow-up report	2020	GEI	PG 03 Review and improve training programs	Consolidate the offer of the training program	Consolidate the offer of Minor Global Acting in ICT	No	Head of Studies / Degree Coordinator	Course 20/21 Course 21/22	Action taken
SIGQ monitoring	2020	Center	PG 26 Accredit the qualifications	Highlight the quality of the degrees taught and give it international recognition	Renewal of ASIIN labels: EUR-ACE for GEM, GEEIA, GEES and MEInd degrees EURO-INF for GEI and MEInf degrees	No	Management of the Center	Course 20/21	Scheduled visit of the ASIIN External Committee in December 2021
SIGQ monitoring	2020	Center	PG 26 Accredit the qualifications	Prepare the institutional accreditation of the center	Formalize the quality policy of the center in a document	No	Management of the Center	1st semester 2021	Approval of the Quality Policy of the EPS by the CAU (07/07/2021)
SIGQ monitoring	2020	Center	PG 15 Develop and execute the training plan for academic staff	Encourage teaching improvement and innovation actions by applying teaching methodologies and sharing good practices adapted to teaching on	Organize seminars for teachers to apply new teaching methodologies and share teaching experiences related to	No	Heads of Studies	February 2021	04/02/2021. Virtual workshop on teaching in COVID time at EPS-UdL 2021 03/02/2021. Conference on active teaching technologies and methodologies of the EPS at the university campus Igualada-UdL 2021

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
				the occasion of the changes brought about by COVID-19	the transition to virtual teaching				
Center agreements	2021	Center	PG 03 Review and improve training programs	Design measures to improve student permanence.	Perform an analysis of the results of the dropout rate of the degrees with the highest rates	No	Deputy Director of Students, Promotion and Quality	In 2021	The document / report is being prepared
Center agreements	2021	Center	PG 03 Review and improve training programs	Identify the extreme cases of student dissatisfaction with the subjects	Analyze the information of the subjects with values lower than 2.5 and propose measures	No	Center address	In 2021	The document / report is being prepared
Center agreements	2021	Center	PG 08 Manage outgoing mobility students	Design an administrative mobility management procedure.	Write the center procedure	No	Deputy Director of International Relations	In 2021	Drafted the Operating Instruction in September 2021
Center agreements	2021	Center	PG 31 Review and improve the internal quality assurance system	Review the IQAS Manual of the centers	Approve the revision of the centre's IQAS Manual	No	Deputy Director of Students, Promotion and Quality	In 2021	Approval of the revision of the Manual of the IQAS of the EPS by the CAU (07/07/2021)
Center agreements	2021	Center	PG 32 Manage complaints and suggestions (centers)	If the confinement is maintained, set up virtual meetings with students to collect complaints and suggestions regarding	Organize meetings with students in 6 degrees of the center (degree and master)	No	Deputy Director of Students, Promotio	Course 20/21	Meetings with students of the degrees: GEOIL / GEQ / GATE / GDDTEC / GTIDIC / GEEIA / GEES

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
				the quality of the degrees.			n and Quality		
Follow-up / accreditation report	**2021**	**Center**	**PG 28 Welcoming and guiding students**	**Improve student representation**	**Achieve representation of all degrees in the Student Council**	**No**	**Deputy Director of Students, Promotion and Quality**	**Course 21/22**	
Follow-up / accreditation report	**2021**	**Center**	**PG 06 Capturing future students**	**Improve student representation**	**Achieve representation of all degrees in the Student Council**	**No**	**Deputy Director of Students, Promotion and Quality**	**Course 21/22**	
Follow-up / accreditation report	**2020**	**Center**	**PG 06 Capturing future students**	**Give visibility to the Igualada Campus**	**To improve the promotion campaign of the Campus of Igualada, carrying out a market study that allows to determine effective actions and involving the students**	**No**	**School Management**	**Course 21/22**	
Follow-up / accreditation report	**2021**	**Center**	**PG 06 Capturing future students**	**Disseminate degrees in the area of influence**	**Make efforts to link schools of training cycles and link them to the Campuses of Lleida and Igualada**	**No**	**Deputy Director of Students, Promotion and Quality / Degree Coordinators**	**Course 21/22**	

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
Follow-up / accreditation report	2021	Center	PG 30 Plan and develop teaching methodologies	Establish project work in degrees	Promote integrative projects in industry (proposed by companies) on the Igualada campus	No	Head of Studies / Degree Coordinator	Course 21/22	
Follow-up / accreditation report	2021	Center	PG 06 Capturing future students	Promote technological vocations	Consolidate the TalenTECH Program (Project aimed at joining forces between the EPS and the secondary schools of the western counties and Anoia in order to provide teaching, resources and advice to boys and girls with good academic records who have concerns to learn and get to know the university academic world first hand)	No	Deputy Director of Students, Promotion and Quality	Course 20/21	
Follow-up / accreditation report	2021	Center	PG 32 Manage complaints and suggestions (centers)	Consolidate the relationship between the school, students and alumni	Promote the School's Linkedin with the publication of articles of interest (World Day of the Information Society, World Day of Architecture, World Day of Energy Saving, World Day of Usability, World Day of Urbanism…)	No	School Management	Course 21/22	
Follow-up / accreditation report	2021	Center	PG 27 Manage material	Improving sub-standard 5.2 The material resources	Creating an OpenLab	No	School Management	Course 21/22	

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
			resources for teaching	available are appropriate to the number of students and the characteristics of the degree.					
Follow-up / accreditation report	2021	Center	PG 29 Manage external academic internships	Promote actions that enhance the level of interaction with the business environment generating new synergies	Create a Dual Training Monitoring Committee	No	External Internship Coordinator	Course 21/22	
Follow-up / accreditation report	2021	Center	PG 28 Welcoming and guiding students	Encourage the internalization of our students	Update videos of degrees / international mobility videos	No	Deputy Director of International Relations / Deputy Director of Students, Promotion and Quality	Course 21/22	
Follow-up / accreditation report	2021	Center	PG 13 Identify needs and select academic staff	Increase teaching in English in degrees	Assess with the Office of the Vice President for Academic Planning and Quality how to promote teaching in English at the UdL	No	School Management	Course 21/22	
Follow-up / accreditation report	2021	Center	PG 27 Manage material resources for teaching	Improving sub-standard 5.2 The material resources available are appropriate to the	Enable a student area in the hall on the -1 floor	No	School Management	Course 21/22	

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
				number of students and the characteristics of the degree.					
Accreditation report	2021	GEI	PG 03 Review and improve training programs	Design measures to improve student permanence.	Monitor dropout and fees for the first year of the degree	No	Head of Studies / Degree Coordinator	Course 21/22	
Accreditation report	2021	GEI	PG 03 Review and improve training programs	Improve the quality of the training program	Restructuring of the Curriculum in line with the changes to be introduced in the Master in Computer Engineering	No	Head of Studies / Degree Coordinator	Course 21/22	
Accreditation report	2021	GEI	PG 03 Review and improve training programs	Improve the quality of the training program	Revision of the TFG registration regulations in order to speed up procedures	No	Head of Studies / Degree Coordinator	Course 21/22	
Accreditation report	2021	GEM	PG 30 Plan and develop teaching methodologies	Establish project work in degrees	Incorporate the realization of integrative projects that involve different subjects in the formative itinerary of the students of the degree	No	Head of Studies / Degree Coordinator	Course 21/22	
Accreditation report	2021	GEEIA	PG 03 Review and improve training programs	Improve the quality of the training program	Review the catalog of training activities, field visits, in order to promote the Automatic aspect of the degree	No	Degree coordinators	Course 20/21	
Accreditation report	2021	GEES	PG 03 Review and improve training programs	Improve the training program	Analyze the optional subjects of the GEES that involve mentions in the title	No	Head of Studies / Degree	Course 21/22	

Proposed Origin	Year Proposal	TITLE / CENTER	PC	Objectives Achieved	Improvement Actions	Modification. Memory of the title Yes / No	Responsible for the action	Implementation calendar	Follow-up of the action
							Coordinator		
Accreditation report	2021	GEES	PG 06 Capturing future students	Increase the offer of double degrees	Consolidate the GEES degree, as well as the double GEM / GEES degree	No	Head of Studies / Degree Coordinator	Course 21/22	

EVIDENCES

The evidences are organized in folders according to the criterion. All documentation is available on the UdL virtual campus. Route and access codes will be sent by email

EVIDENCE	DESCRIPTION
General	
0_01_EPS_Reunió acreditacions 2021.pdf	Call to the meeting to prepare the self-assessment report
0_02_Cronograma.pdf	Work schedule
0_03_EPS_Acta 2021-06-17.pdf	Act of constitution of the Internal Evaluation Committee
0_04_EPS_Conv_CAI.pdf	Self-report approval
0_05_EPS_ExPublica.pdf	Public exhibition of the self-assessment report
Criterion 1	
1_00_RD1393-2007.pdf	Royal Decree 1393/2007, of October 29, which establishes the organization of official university education
1_00_ResolInformatica.pdf	Resolution of June 8, 2009, which establishes recommendations for the proposal by universities of reports of application for official degrees in the fields of Computer Engineering, Computer Technical Engineering and Chemical Engineering.
1_00_Orden CIN351_2009BOE.pdf	Order CIN / 351/2009, of February 9, which establishes the requirements for the verification of official university degrees that enable the exercise of the profession of Industrial Technical Engineer
1_00_Orden_CIN_311_2009.pdf	Order CIN / 311/2009, of February 9, which establishes the requirements for the verification of official university degrees that enable the exercise of the profession of Industrial Engineer
1_01_(name_degree)_MemActVerificacio	Document that collects all the information related to the degree.

1_02_(name_degree)_InfVerificacio-AQU.pdf 1_02_(name_degree)_InfVerificacio-CU.pdf	Validaton (exante assessment). AQU report for the validation of recognised degree in Catalonia. Universities Council (CU) resolution with the outcome of the validation process.
1_03_EPS_InfSeguiment	Link to program monitoring reports
1_04_(name_degree)_CompSubject.pdf	Table showing the relationship between the competences of the degree and their distribution by subjects
1_05_(name_degree)_CompTit_SSC_ASIIN.pdf	Table showing the relationship between the competences of the degree and ASIIN Subject-Specific Criteria
1_06_(name_degree)_Module	Module descriptions as they are available to students and the teaching staff
1_07_EPS_Stakeholders	
1_07_EPS_ComElab.pdf	Composition of the committees for the preparation of the study plans
1_07_EPS_DesignRecords	Minutes of the School Board regarding the design of the study plans
1_07_UdL_Teaching strategy	Document prepared by the UdL on teaching strategy
1_07_UdL_PlanTeachingStrategy	Framework for Planning of Teaching at the UdL
1_07_EPS_SampleSurveyGEI 1_07_EPS_SampleSurveyGInd	Sample of surveys conducted on entrepreneurs, institutions and faculty involved in the design of program competencies
1_07_EPS_ResultsSurvey	Presentation of the results of the surveys carried out
1_07_EPS_SocialAgents_03-02-2007 1_07_EPS_SocialAgents_18-05-2009	List of the social agents that participated in the commissions of elaboration of the plans of study of the degrees adapted to the EEES.
1_08_UdL_AcademicRegulationsBacDegrees 1_08_UdL_AcademicRegulationsMastDegrees	Academic Regulations for Bachelor's and Master's Degrees
1_09_UdL_ExaminationRegulations	Regulations for the assessment and grading of student learning in UdL Bachelor's and Master's Degrees
1_10_UdL_Enrollment 1_10_EPS_Enrollment	Link to UdL and EPS enrollment information
Criterion 2	
2_00_EPS_Framework	EPS Academic Framework for Bachelor's and Master's degrees
2_00_EPS_Framework BD.en.pdf	

2_00_EPS_Framework MD.en.pdf	
2_01_(name_degree)_CompSubject.pdf	Table showing the relationship between the competences of the degree and their distribution by subjects
2_02_(name_degree)_CompTit_SSC_ASIIN.pdf	Table showing the relationship between the competences of the degree and ASIIN Subject-Specific Criteria
2_03_(name_degree)_Web	Link to the Bachelor's/Master's degree website
2_04_UdL_Mobility 2_04_EPS_Mobility	Link that inform about the regulations about mobility
2_05_UdL_PG29	SGIQ procedure: PG29 Manage external internships
2_06_UdL_Internships	Regulation of the external internships
2_07_UdL_CrossCurricularSubject	Regulation of Cross-curricular subject
2_08_EPS_PC008	Procedure PC008: Management of dual training in the masters of the Polytechnic School
2_08_EPS_Dual training	
2_09_UdL_TeachingStrategy	Teaching and training strategy of the UdL
2_10_UdL_PG28	Link to procedure PG28 Welcome and guide students
2_11_UdL_AcompanyaNestor	Link to the page AcompanyaUdLNestor where information is provided on the institutional program to accompany and guide students during their stay at the university
2_12_UdL_ManualFormEstu_PE.pdf	Institutional action plan to facilitate job placement: Internships
2_13_UdL_ProfOrientation_1	
2_14_UdL_ProfOrientation_2	Link to "Feria UdL Trabajo"
2_15_UdL_Jobteaser	Link to the "Jobteaser". This web gives access to: job offers reserved for UdL students and graduates, internacional offers, events, individualized online career guidance sessions
2_16_UdL_IndSatSBD_curs 2020_2021.pdf	Indicators of use of Library Services
2_17_(name_degree)_MapPracticalAct.pdf	"Map of Practical Activities" for each Bachelor's degree

Criterion 3	
3_00_EPS_Framework	EPS Academic Framework for Bachelor's and Master's degrees
3_00_EPS_Framework BD.en.pdf	
3_00_EPS_Framework MD.en.pdf	
3_01_EPS_Class_Schedule	Class Schedule
3_02_EPS_ExamCalendars	Exam Calendars
3_03_UdL_ExaminationRegulations	Regulations for exams
3_04_EPS_Exams	Link to de regulations about evaluation and qualification
3_05_(name degree)_DIT	Bachelor's degree indicators
3_06_(name_degree)_DIT_2	The Bachelor's degree in figures (disaggregated by sex)
3_07_(name_degree)_LabInserStudies_E	Labor insertion studies Engineering (EUCDades)
3_07_(name_degree)_LabInserStudies_IT	Labor insertion studies Industrial Technology
Selection of exams/transcripts/ projects of students	
(name_degre)	A folder for each degree.
(subject 1)	A folder for each subject
(subject 2)	
(subject 3)	
(subject…)	
3_03_(name_degre)_Degree_curriculum	Link to the teaching guide for each subject
3_04_(name degree)_CVTeacher	Link to the CV of the teaching staff who teach the subject
3_05_(name degree)_ActivityApproach	Statement of learning and assessment activities
3_05_(name_degree)_ExamsPlanning	Statement of the exams
3_05_(name_degree)_CorrectionCActivity	Statement of correction criteria for activities and exams
3_05_(name_degree)_CorrectionCExam	
3_06_(initial_name_student)_(name_degree)_ActivityExecution_(MH/EX/NT/AP/SU)	Selection of activities and exams carried out by students
3_06_(initial_name_student)_(name_degree)_ExamsPerformance_(MH/EX/NT/AP/SU)	

3_07_(name_degree)_EvaluationResults.pdf	Table with the students results and the final grade
(Internship)	
3_03_(name_degre)_Degree_curriculum	Link to the teaching guide for each subject
3_04_(name degree)_CVTeacher	Link to the CV of the teaching staff who teach the subject
3_05_(name_degree)_InternshipPlanning	Statement of the internship
3_05_(name_degree)_InternshipCorrection	Statement of correction criteria of internship
3_05_(name_degree)_ListCompany	List of companies where the student carries out internships
3_06_(initial_name_student)_(name_degree)_InternshipPerformance_(MH/EX/NT/AP/SU)	Selection of internships carried out by students
3_07_(name_degree)_EvaluationResults.pdf	Table with the students results and the final grade
(Bachelor's Thesis)	
3_03_(name_degre)_Degree_curriculum	Link to the teaching guide for each subject
3_04_(name degree)_CVTeacher	Link to the CV of the teaching staff who teach the subject
3_05_(name_degree)_TFGCorrectionCriteria.pdf	Correction criteria
3_05_(name_degree)_TFGApproach.pdf	Approach of the Bachelor's Thesis
3_06_(initial_name_student)_(name_degree)_TFGPerformace_(MH/EX/NT/AP/SU).pdf	Selection of Bachelr's Thesis carried out by students
3_07_(name_degree)_EvaluationResults.pdf	Table with the students results and the final grade
Criterion 4	
4_01_(name_degree)_TeachingStaff	Description of the Teaching Staff
4_02_EPS_Research	Information about research centers & research groups
4_02_EPS_Research_1	Publications in magazines of the teaching staff (http://webgrec.udl.es/)
4_02_EPS_Research_2	Publications in books of the teaching staff. (http://webgrec.udl.es/)
4_02_EPS_Research_3	Scientific congress contributions. (http://webgrec.udl.es/)
4_03_MilloraDocencia_202021.pdf	UdL competitive grants for the implementation of innovation and teaching improvement projects
4_04_UdL_Convocatoria_Equipos_Docencia.pdf	Specific programme to improve teaching infrastructures and laboratories
4_05_UdLPFormPDI_2021.en.pdf	Teacher training plan

4_06_UdL_Budget	Link to the economic information of the UdL (budget)
4_07_EPS_TourVirtual	Virtual tour of the Polytechnic School buildings
4_08_EPS_Computer_classrooms	
4_09_EPS_Teaching_spaces	
4_10_UdL_Library	
Criterion 5	
5_00 EPS_web	Polytechnic School web
5_01_(name degre)_Web	Link to the Bachelor's/Master's degree website
5_02_UdL_IST	Link to the website of the Quality and Teaching Planning unit with the annual monitoring reports of the degrees
5_03_UdL_PG 23	General Procedure PG23: Publish Information and account for training programmes
5_04_EPS_InformationManagement.pdf	Information management in the Polytechnic School
5_05_EPS_WebReview	Annual review of the EPS's web pages by degree
5_06_UdL_WebMigration.pdf	VOAC sample email of the process of migration / renewal of the degree websites
5_07_(name_degree)_Certificate	Sample graduation certificate
5_08_(name_degree)_SET	Sample Diploma Supplement
Criterion 6	
6_00_AUDIT_Programme	Programme to promote the development and implementation of internal quality assurance systems in universities and other HEI
6_01_UdL_UdL Quality Office	Link to the home page of the university's Quality Office
6_02_EPS_Quality Assurance	Link to the home page of EPS Quality Assurance
6_03_UdL_SGIQ.pdf	Presentation of the Internal Quality Assurance System
6_04_EPS_SGIQ.pdf	EPS Internal Quality Assurance System
6_05_UdL_GP	University General Procedures
6_06_EPS_Follow-up_SGIQ	Link to the folder Monitoring and review reports of theEPS SGIQ
6_07_UdL_OpinionSurvey	Instruments for collecting stakeholder satisfaction

6_08_EPS_ImprovementPlan	Link to the folder that contains the Improvement Plans
6_09_EPS_improvementAgreements	Link to the folder that contains the improvement Agreements signed between the UdL government team and the center's management team.
6_10_UdL_GP_Evaluation.pdf	Evaluation of the transversal procedures of the UdL
6_11_EPS_QualityPolitics.pdf	EPS Quality Policy
6_12_UdL_Indicators_GP.pdf	Indicators for monitoring General Procedures
6_13_UdL_Indicators_Degree	Academic indicators of Bachelor's/Master's degrees
6_14_UdL_Indicators_Faculties_Schools	Strategic Plan Indicators
6_15_UdL_Figures_Rankings	Electronic publication that collects the statistical information of reference of the basic areas of activity of the University (teaching and research)

Annex: Correspondence between AQU Catalunya and ASIIN standards

ASIIN	Notes	AQU Catalunya
1. The Degree Programme: Concept, content & implementation		**1. Quality of the training programme**
1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)		**1.1. The programme's competence profile meets the requirements of the discipline and complies with the required level of study according to the MECES.**
1.2 Name of the degree programme **1.3 Curriculum**		**1.2. The curriculum and structure of the curriculum are consistent with the programme's competence profile and learning outcomes.**
1.4 Admission requirements		**1.3. Students who are admitted have an admission profile that is suitable for the programme and the number of students is consistent with the number of places offered.**
	ASIIN criterion 6	**1.4. The existence of effective teaching coordination mechanisms for the programme.**
	ASIIN criterion 5.3	**1.5. The different regulations are duly complied with and this has a positive impact on the programme outcomes.**
2. The Degree Programme: Structures, Methods & Implementation		
2.1 Structure and modules		
2.2 Work load and credits		
2.3 Teaching methodology		
2.4 Support and assistance		**5. Effectiveness of learning support systems**

		5.1. The academic guidance services provide adequate support for the learning process, and the professional guidance services facilitate entry into the labour market. **5.2. The available physical resources are adequate for the number of students and the characteristics of the programme.**
3. Exams: System, Concept & Organization		**6. Quality of programme (learning) outcomes**
		6.1. The learning outcomes achieved meet the expected training goals and the MECES level of the degree programme.
		6.2. The training activities, the teaching methodology and the assessment system are suitable to ensure the achievement of the expected learning outcomes.
		6.3. The values for the academic indicators are adequate for the characteristics of the programme.
		6.4. The values for the graduate labour market/destination indicators are adequate for the characteristics of the programme.
4. Resources		**4. Suitability of teaching staff for the training programme**
4.1 Staff		**4.1. The teaching staff meet the qualifications requirements for programme delivery in the faculty, and they have sufficient and recognized teaching, research and, where applicable, professional experience.**
		4.2. There are sufficient teaching staff in the faculty, and staff assignment is adequate for them to carry out their duties and attend to the students.
4.2 Staff development		**4.3. The HEI offers support and opportunities for enhancing teaching quality in the faculty.**

4.3 Funds and equipment		
5. Transparency and Documentation		**2. Relevance of public information**
5.1 Module descriptions		**2.1. The HEI publishes truthful, complete, up-to-date and accessible information on the characteristics of the degree programme and its delivery.**
	ASIIN criterion 6	**2.2. The HEI publishes information on the academic and satisfaction outcomes.**
	ASIIN criterion 6	**2.3. The HEI publishes the IQAS which forms the framework of the degree programme and the monitoring and accreditation outcomes of the degree programme.**
5.2 Diploma and Diploma Supplement		
5.3 Relevant rules	AQU sub-standard 1.5	**1.5. The different regulations are duly complied with and this has a positive impact on the programme outcomes.**
6. Quality Management: Quality Assessment and Development		**3. Efficacy of the programme's internal quality assurance system**
		3.1. The implemented IQAS has processes which ensure the design, approval, monitoring and accreditation of the degree programmes.
		3.2. The implemented IQAS ensures the collection of information and of outcomes relevant to the efficient management of the degree programmes, especially including the academic and satisfaction outcomes of the stakeholders.
		3.3.The implemented IQAS is periodically reviewed and generates an improvement plan that is used for its continuous enhancement.